Experiences from First-time Blended Learning Courses: Implications to Design and Delivery

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Learning that combines different learning environments: typically the use of learning via the web and face-to-face teaching (Anderson, 2010)

- Restructuring traditional class contact hours
- Rethinking the course design to optimize student engagement

Blended learning has larger advantage compared to purely face-to-face instruction and purely online instruction (Means et al., 2010)
Five key ingredients in blended learning: live events, online content and/or self-pace activities, collaboration, assessment and reference materials (Carman, 2005)

Community of Inquiry (CoI) framework which looks into three elements crucial to a successful online learning experience: social presence, teaching presence, and cognitive presence (Garrison and Vaughan, 2008)
E – Evaluation
Student achievement and evaluation of the blended learning course based on the Community of Inquiry (CoI) Framework (Garrison and Vaughan, 2008):

- Cognitive presence
- Social presence
- Teaching presence
1. How did the students perceive their experience in the first-time blended learning courses in terms of social, cognitive and teaching presence?

2. How did the first-time blended learning courses enhance student learning in terms of their achievement?

3. What factors contribute to their blended learning experience?

4. What improvements in the blended learning course design and delivery can be proposed?
Course Redesign Program

• Six (6) blended courses
  1. ENG12 – Reading, Writing and Research Skills
  2. MAT22 – Elementary Statistics
  3. EDU30 – Educational Technology 2
  4. EGR36 – Engineering Management
  5. ITC56 – Information Technology Professional Ethics
  6. MGT26 – Human Behavior in Organizations

• Rotation Model of Blended Learning

• 2nd semester of SY 2013-2014
This is to officially welcome everyone to Jose Rizal University’s online Learning Management System (LMS).

TO LOG-IN, USE THE FOLLOWING DETAILS:

For Students

Username: Use your student number (ex. 14-123456)
Password: Use your student password. Try the default password: JRU2014
• Descriptive research (with quantitative and qualitative data)
• 184 participants
• Blended Learning Student Survey Questionnaire by Garrison and Vaughan (2008)
• Presence in Online Community of Inquiry Tool (Swan, et al., 2008)
• Surveymonkeys via Moodle
• Frequencies, Correlation, T-test/Anova, post-hoc Tukey’s test
# Profile of Students in Blended Learning Courses

<table>
<thead>
<tr>
<th>Year-Level</th>
<th>EDU30 (n=19)</th>
<th>EGR36 (n=28)</th>
<th>ENG12 (n=36)</th>
<th>ITC56 (n=38)</th>
<th>MAT22 (n=29)</th>
<th>MGT26 (n=34)</th>
<th>TOTAL (n=184)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
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<td>1st</td>
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<td>5.26</td>
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<td>0.00</td>
<td>36</td>
<td>100</td>
<td>3</td>
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<tr>
<td>2nd</td>
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<td>3.57</td>
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<td>0</td>
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<tr>
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<td>89.29</td>
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<td>4th</td>
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<td>7.14</td>
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<table>
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<tbody>
<tr>
<td>Male</td>
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<td>31.58</td>
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<td>67.86</td>
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<td>52.78</td>
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<tr>
<td>Female</td>
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<td>68.42</td>
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<td>32.14</td>
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<table>
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<tr>
<th>1st time MOODLE users</th>
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<tbody>
<tr>
<td>Yes</td>
<td>5</td>
<td>26.32</td>
<td>23</td>
<td>85.19</td>
<td>15</td>
<td>41.67</td>
<td>10</td>
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<tr>
<td>No</td>
<td>14</td>
<td>73.68</td>
<td>4</td>
<td>14.81</td>
<td>21</td>
<td>58.33</td>
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Perceptions towards first-time blended learning courses

<table>
<thead>
<tr>
<th>Quantity/Amount of interaction experienced with:</th>
<th>EDU30 (n=19)</th>
<th>EGR36 (n=28)</th>
<th>ENG12 (n=36)</th>
<th>ITC56 (n=38)</th>
<th>MAT22 (n=29)</th>
<th>MGT26 (n=34)</th>
<th>TOTAL (n=184)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other students in this blended learning course</td>
<td>3.68</td>
<td>3.61</td>
<td>4.33</td>
<td>4.29</td>
<td>3.62</td>
<td>2.82</td>
<td>3.76</td>
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<tr>
<td>The instructor in this blended learning course</td>
<td>3.79</td>
<td>3.71</td>
<td>4.42</td>
<td>4.14</td>
<td>3.39</td>
<td>2.62</td>
<td>3.69</td>
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<tr>
<td>Quality of interaction experienced with:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other students in this blended learning course</td>
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<td>3.64</td>
<td>4.22</td>
<td>4.11</td>
<td>3.48</td>
<td>2.38</td>
<td>3.61</td>
</tr>
<tr>
<td>The instructor in this blended learning course</td>
<td>4.00</td>
<td>3.68</td>
<td>4.33</td>
<td>4.09</td>
<td>3.14</td>
<td>2.32</td>
<td>3.58</td>
</tr>
</tbody>
</table>

Legend: 5 – Increased, 4 – Somewhat increased, 3 – No Difference, 2 – Somewhat decreased, 1 – Decreased
Perceptions towards first-time blended learning courses

✓ 126 respondents (68.48%) mentioned moderate workload in BL courses compared to workload in their other courses

✓ Strong acceptance of the various blended learning tools (e.g. Resources, Assignments, Forums and Quizzes)
  • ease of use (89% average)
  • usefulness (91% average)
Online and in-class work was relevant to each other (40.22%), or online and in-class work enhanced each other (39.67%)

- MAT22 where 11 out of 29 respondents (37.93%) stated that the connection between the two was not always clear
Experiences in first-time blended learning courses

Teaching Presence (11 items)
Social Presence (7 items)
Cognitive Presence (6 items)
Experiences in first-time blended learning courses

Highest rated items

✓ Teaching presence: Professor clearly communicated important due dates/time frame for the activities (3.03)

✓ Cognitive presence: Learning activities help students construct explanations/solutions (3.00)

✓ Social presence: Students feel comfortable participating in the course discussions (2.99)
Lowest rated items all fall under the teaching Presence

- Professor provided feedback that helped students understand their strengths and weaknesses (2.89)
- Encourage students to explore new concepts in the course (2.90)
- Provided feedback in a timely fashion (2.91)
Achievement

✓ Increase in student grades are seen in the ENG12 and MGT26
✓ Significant increase are seen in the EGR36 (p=0.022) and MAT22 (p=0.000)

- Decrease in student grades were seen in ITC56 and EDU30
Factors affecting first-time blended learning experience

- Significant difference in the total interaction (amount and quality) among student year levels ($p=0.0387$), and MOODLE experience ($p=0.017$)

- Significant difference in the teaching presence based on students’ description of the relationship between the online and face-to-face class learning ($p=0.024$)
The three elements of online learning experience have very strong positive relationship to students’ desire to take another blended learning course in the future:

- $r=0.730$ for teaching presence
- $r=0.797$ for social presence
- $r=0.799$ for cognitive presence
1. Respondents had positive experience in the first-time blended learning courses in terms of overall interaction, the three elements of online learning experience and achievement for courses that had full pilot.

2. Particularly, teaching presence especially served as a vital factor in the success of the blended learning courses according to the respondents.
1. Blended learning courses be modified to further promote interaction

2. Other tools of MOODLE can be integrated (e.g. Chat, survey, wikis and blog)

3. Utilization of video lectures should also be explored
4. Corresponding trainings for these tools and resources should be included in the professional development of teachers

5. Student orientation on the concept of blended learning and MOODLE must also be provided

6. Full implementation is recommended for MAT22, ENG12, EGR36 and MGT26, whereas full pilot is recommended for ITC56 and EDU30
7. Experience of teachers in first-time blended learning courses also be examined.

8. Classroom observation can also be done to look into how the teacher links the between the face-to-face and online sessions.
REFERENCES


Hanover Research (2011). *Blended learning programs*. Accessible at www.hanoverresearch.com


Refre, A. (n.d.). *Blended learning through online and oncampus education delivery modes integration*. Center for e–Learning Services


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THANK YOU

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