Size Matters
An exploratory study of the impact of discussion forum format on social presence and cognitive presence

Background
- Online student interaction
- Community of Inquiry model (Fig. 1)
- Exploratory study
- 6 forum types: 3 full-class (Moodle, Consider.it, Flipgrid) and 3 small group (random, programmatic, self-select)

Findings – RQ1
- Overall Chi-square test for association for SP and CP not significant ($\chi^2 = 0.18, p = 0.67$)
- Discounting anomalies (LF, SR), difference in proportion of high-SP posts in all other large-versus small-group formats was statistically significant ($z = -2.16, p = 0.03$). See Table 1.

<table>
<thead>
<tr>
<th>Forum Type</th>
<th>High CP (CP ≥7) all posts</th>
<th>High CP (CP ≥7) response posts</th>
<th>High SP (A≥0, C &gt; 0, $^{22}$) response posts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large – Consider.it (LC)</td>
<td>0.275</td>
<td>0.333</td>
<td>0.143</td>
</tr>
<tr>
<td>Large – LMS (LM)</td>
<td>0.323</td>
<td>0.317</td>
<td>0.210</td>
</tr>
<tr>
<td>Large – Flipgrid (LF)</td>
<td>0.337</td>
<td>0.367</td>
<td>0.433</td>
</tr>
<tr>
<td>Large total</td>
<td>0.300</td>
<td>0.0331</td>
<td>0.256</td>
</tr>
<tr>
<td>Small – Programmatic (SP)</td>
<td>0.505</td>
<td>0.473</td>
<td>0.400</td>
</tr>
<tr>
<td>Small – self-select (SS)</td>
<td>0.685</td>
<td>0.652</td>
<td>0.478</td>
</tr>
<tr>
<td>Small – random (SR)</td>
<td>0.646</td>
<td>0.565</td>
<td>0.152</td>
</tr>
<tr>
<td>Small total</td>
<td>0.568</td>
<td>0.561</td>
<td>0.325</td>
</tr>
</tbody>
</table>

Findings – RQ2
- Consistent ties between high-CP and forum type; all large groups = lowest high-CP proportions
- Difference in proportion combined CP scores for all large vs. all small group significant ($z = -5.88, p < 0.001$)

Future directions
- Quasi-experimental study focused on small groups: Does type of small group affect SP and/or CP?
- Student agency and SP/CP

References

Methods
- Qual (content analysis), quant (social network analysis; Chi-square, z-test)
- Context: Fully online intro LE course
- Participants: 19 undergrad students
- n= 486 total discussion posts (257 reply posts)

Contact
Comments or questions?
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