Effects of Feedback by Multiple Peers on Students’ Task Revision in a Collaborative Online Environment.

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Teacher centered learning → Student centered learning

Teacher centered learning:
- Teacher
- Students

Student centered learning:
- Teacher
- Individual & Collaborating students
Clinical workplace learning
Problem: Students are scattered in place and time

Solution: Asynchronous Collaborative Online Environment
Research question

does feedback provided by multiple peers
in a collaborative online environment
lead to task revision of such a quality
that it obviates the need for expert feedback?
Task

1. Individually writing a research protocol
2. Upload the protocol on the discussion forum
3. Asynchronous online discussion
4. Opportunity for protocol revision
5. Expert assessment of protocol

Review process
<table>
<thead>
<tr>
<th>Phase</th>
<th>Peer feedback</th>
<th>No peer feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td></td>
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<tr>
<td>4</td>
<td></td>
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<tr>
<td>5</td>
<td></td>
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<tr>
<td>6</td>
<td></td>
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</tbody>
</table>

Review process
# Review process

<table>
<thead>
<tr>
<th>review process</th>
<th>phase 1</th>
<th>phase 2</th>
<th>phase 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>peer feedback</td>
<td>revision</td>
<td>no expert feedback</td>
<td>4%</td>
</tr>
<tr>
<td>4</td>
<td>peer feedback</td>
<td>no revision</td>
<td>no expert feedback</td>
<td>17%</td>
</tr>
<tr>
<td>6</td>
<td>no peer feedback</td>
<td>no revision</td>
<td>no expert feedback</td>
<td>48%</td>
</tr>
<tr>
<td>total</td>
<td></td>
<td></td>
<td></td>
<td>69%</td>
</tr>
<tr>
<td>review process</td>
<td>phase 1</td>
<td>phase 2</td>
<td>phase 3</td>
<td></td>
</tr>
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<td>---------------</td>
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</tr>
<tr>
<td>1</td>
<td>peer feedback</td>
<td>revision</td>
<td>expert feedback</td>
<td>9%</td>
</tr>
<tr>
<td>3</td>
<td>peer feedback</td>
<td>no revision</td>
<td>expert feedback</td>
<td>13%</td>
</tr>
<tr>
<td>5</td>
<td>no peer feedback</td>
<td>no revision</td>
<td>expert feedback</td>
<td>9%</td>
</tr>
<tr>
<td>total</td>
<td></td>
<td></td>
<td></td>
<td>31%</td>
</tr>
</tbody>
</table>
Expert feedback

- 71%: expert feedback on unrevised task
- 29%: expert feedback on revised task
Quality of Student and Expert Feedback
Quality of Student and Expert Feedback

**nature of feedback**

- Content
- Editorial
- Explication

**Legend:**
- Student feedback
- Expert feedback
Quality of Student and Expert Feedback

- **Directive**: Suggesting a specific change
- **Non-directive**: Suggesting a nonspecific change
- **Criticism**: A negative evaluation of (a portion) of the paper
- **Praise**: Describes (a portion) of the paper positively

*Feedback categories by Cho et al. 2006*
Quality of student and expert feedback

content feedback

- directive
- non-directive
- criticism
- praise

- student feedback
- expert feedback
Summary

- Students are willing to engage in a review process with peers
- Task revision (probably) can be increased
- Peers provide more feedback than experts
- Students deliver directive, criticism and praise feedback
- Experts provide non-directive feedback
1) Feedback by multiple students can lead to revision

2) Expert provide feedback mostly on unrevised tasks

3) Trivial feedback does not obstruct students task revision