A Learner Perspective on Peer Assessment

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Overview

- Background
- Our study
- Method
- Results and Discussion
- Conclusion
- Where to from here
- Questions
Introduction

- A contrast of learners’ experience with peer assessment & self-assessment.

- Peer assessment skills
  - “are needed by lifelong learners, not only in their continuing learning but also in contexts such as performance appraisal, team building, and so on, which need people who have become adept at assessing each other’s work and contributing fairly, sensitively and appropriately.” (Race, 2001)
In order for learners to become an active part of such a learning society they have to adopt a “learning approach to life” and develop the judgments they make about learning as well as learning tasks (Boud, 2000).

For learners to develop judgemental skills educators must:
- go beyond immediate course–related goals
- view assessment in wider terms

Assessment should have a purpose of preparing students for activities of learning throughout life in a learning society.
Current views

There are many definitions of peer assessment:

- An agreement in which individuals consider the amount, level, value, worth, quality, or success of products or outcomes of learning of peers of similar status.” (Topping, 1998)

- An arrangement with students assessing the quality of their fellow students’ work & giving feedback to each other.” (Van Der Berg, Admiral and Pilot, 2006)

- A skill that can be acquired through training. (Sluijsmans at al, 2004)
Advantages

- Acquisition of life long skills (Ballantyne et al 2002).
- Enhances employability skills (Cassidy 2006) by improving:
  - oral and written communication
  - reading
  - learning skills and strategies
  - problem solving, decision making
  - dependability, and responsibility
- Setting assessment criteria contributes to student learning. (Sivan 2000)
- Enhances self assessment (Topping 2005)
Disadvantages

- Concern around validity & reliability of marks given by students due to:
  - lack of expertise
  - potential bias
  - discomfort with the extra responsibility
  - lack of formal training
  - perception that is the job of the tutor to do assessment. Cassidy (2006)

- But, validity and reliability are only a concern if marks are used summatively.
Other characteristics

- Topping also states that peer assessment is more reliable than self-assessment but it still lacks objectivity.

- It requires the active engagement of students.

- Students must value both the goal of lifelong learning and the learning arising from the process of peer assessment as implemented in courses.
Our study

- We explored the student perspective

- We asked these research questions:
  - Do students see value in self-assessment?
  - Does self and peer assessment help learning?
  - Do participants learn more from peer-assessment than self-assessment?
  - Should we do more self and peer assessment?
  - What are the barriers to wider use?
Method

- Non-experimental post-test only design
- Participants completed a questionnaire
- Survey questions were formed into four scales;
  - value
  - learning
  - contrasting peer with self
  - concerns
- Additional questions captured basic demographics and conceptions of learning
Sample

- Non random convenience sample.
- Students enrolled in three degree courses with self and peer-assessment.
- Self and peer-assessment were used primarily for their believed contribution to learning.
  - Where marks were awarded, it was for quality of marking demonstrated.
  - Student marks were not used themselves
- Questionnaire administered to 92 students (64% of 143 enrolled) who chose to participate.
- Analysis was carried out after marks finalisation. (Teacher/Participant relationship)
Use of scales

- We formed questions into scales (DeVaus, 2002) for these reasons:
  - To get at the complexity of the concept
  - To help develop more valid measures
  - To increase reliability
  - For greater precision
  - To simplify analysis

- On the following slides, we set out the questions used to build the scales as well as the scale results.
Do students see value in self-assessment?

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<tbody>
<tr>
<td><strong>D01</strong></td>
<td>The ability to assess my own performance is important</td>
<td><strong>97%</strong></td>
</tr>
<tr>
<td><strong>D03</strong></td>
<td>The idea of self-assessment is a good one</td>
<td><strong>89%</strong></td>
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<tr>
<td><strong>D04</strong></td>
<td>Self-assessment would be a good idea if we didn’t have such a high workload</td>
<td><strong>88%</strong></td>
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- We concluded that participants endorsed the value of self-assessment:
  - $t_{(91)} = 9.3691; p < .0001$
  - $CI_{.99} = (6.4232 \leq \text{Valued} \leq 7.5283)$. 
Does self and peer assessment help learning?

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<th></th>
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<th>Percentage</th>
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<tr>
<td>D02</td>
<td>Self-assessment is more demanding that having someone else assess me</td>
<td>88%</td>
</tr>
<tr>
<td>D07</td>
<td>I found assessing my own work to be valuable</td>
<td>81%</td>
</tr>
<tr>
<td>D08**</td>
<td>I found assessing another student’s work valuable</td>
<td>86%</td>
</tr>
<tr>
<td>D09</td>
<td>This exercise helped me make a realistic assessment of my own abilities</td>
<td>93%</td>
</tr>
<tr>
<td>D10</td>
<td>I had to consider my own learning progress more closely than usual</td>
<td>96%</td>
</tr>
<tr>
<td>D11</td>
<td>Having to justify my mark helped me focus on the value of the work done</td>
<td>94%</td>
</tr>
<tr>
<td>D12</td>
<td>This exercise made me more aware of what I need to know in this subject</td>
<td>97%</td>
</tr>
<tr>
<td>D13**</td>
<td>I learnt from the other markers comments about my work</td>
<td>90%</td>
</tr>
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- We concluded that participants endorsed the value of self-assessment:
  - $t_{(91)}=9.3691; p<.0001$
  - CI_{99} = (6.4232 ≤ Valued ≤ 7.5283).
Do participants learn more from peer-assessment than self-assessment?

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We concluded that participants endorsed this.
- $t_{(91)} = 5.0687; p < .0001$
- CI$_{.99} = (5.7132 \leq \text{LearnedMorePeer} \leq 7.2397)$. 
### Should we do more self and peer assessment?

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<tr>
<td>D05**</td>
<td>It’s not right for other students to mark my work</td>
<td>32%</td>
</tr>
<tr>
<td>D06**</td>
<td>Students should be more involved in assessing other students</td>
<td>73%</td>
</tr>
<tr>
<td>D20**</td>
<td>I did not feel comfortable with the responsibility of marking others’ work</td>
<td>43%</td>
</tr>
<tr>
<td>D21</td>
<td>I did not feel comfortable with the responsibility of marking my own work</td>
<td>44%</td>
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<tr>
<td>D22</td>
<td>It’s the lecturer’s job to mark my work.</td>
<td>60%</td>
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<tr>
<td>D23</td>
<td>We should have more opportunities for peer and self assessment</td>
<td>78%</td>
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<tr>
<td>D25</td>
<td>I don’t know enough to be able to judge whether work is good</td>
<td>65%</td>
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- We concluded that participants did not clearly endorse the wider use of self and peer assessment.  
  - $t(91)=1.3147; p=0.1887$  
  - (i.e. 18% chance of sampling error)
We concluded that participants:
- did not believe that we should reject self and peer assessment.
- 14 of the 92 students (15%) were strongly opposed to the use.
  - $t(91)=-5.3677; \ p<.0001$
  - CI.99 = (3.0934 ≤ Reject ≤ 4.3442)
- We concluded that changes were needed before wider use could be considered.
  - $t(91)=3.6505; \ p=0.0005$
  - CI.99 = (5.2112 ≤ Change ≤ 6.2854)
Other associations

- The under-21 age group endorsed the need to change—older students did not.

- Participants with *work experience* were more likely to:
  - prefer deeper learning and a deeper approach to studying.
  - value self- and peer assessment and to see consequent benefits to their learning.
  - endorse wider use of self and peer assessment and
  - less likely to be opposed.

- No significant associations between the study variables and
  - *Gender*,
  - *English* as a first language
  - or whether the study was taken in a student’s *first semester* of study
  - the *course* or the *level of the course*. 
Discussion

- Learning and wider use
  - 90% of participants believed they learnt from the other markers comments about their work (D13)
  - 86% found assessing another student’s work valuable (D08),
  - But only 73% believed students should be more involved in assessing other students (D06).

- 32% felt it was not right for other students to mark their work (D05)

- 43% felt uncomfortable with the responsibility of marking others’ work (D20)
Discussion

Before we can recommend wider use we need to:

◦ understand better why 15% of the participants were strongly opposed to its use
◦ find ways of changing these participants’ attitudes
◦ find ways of changing the attitudes of those who, although not strongly opposed, remain unconvinced of the benefits
A positive view of the same data

- 90% of participants believed they learnt from the other markers comments about their work (D13).

- 86% found assessing another student’s work valuable (D08),

- 73% believed students should be more involved in assessing other students (D06).

- We need to find ways of satisfying the needs of this majority.
Conclusion

- We remain convinced of the value of including self and peer assessment activities in our courses
  - most of our students agree with us,

- We have gained some insights into why a minority of students may be concerned and

- We have quantified the degree of change needed to overcome these barriers.
What next?

- Our next step is to devise strategies to:
  - mitigate these concerns and
  - evaluate their effectiveness.
- Invitation: We would like to invite you to join us on this journey.
- Contact:  
  Dobrila.lopez@manukau.ac.nz
Questions?