Concurrent validity of approaches to study instruments
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3 Learning Approaches

- **Deep** -- active orientation to the learning task: search for meaning, holistic approach or ‘big picture’, seek for interrelationship between parts (Biggs, 1987)
- **Surface** -- extrinsic motivation, focus on elements rather than the task as a whole, apply rote learning strategies.
- **Achieving / Strategic** -- highly organised approach to study with high achievement motivation

Students’ approaches to study are contingent upon:

1) Their prior experiences
2) Perceptions of current learning contexts

Quantitative measurement of approaches to learning

- **SPQ (1979)**: Personal qualities important to academic learning: motives and strategies on each of the 3 major dimensions
- **ASI (1979)**: Broader classification of meaning, reproducing or achieving orientations, with a 4th dimension measures learning pathologies

Previous correlation study of these 2 instruments

- **SPQ** - 42 item measure containing 3 learning approaches scales, each comprising a motive and strategy subscale (Biggs, 1987)
- **ASI-S** (Entwistle 1981, Entwistle & Ramsden 1983) - 30-item short form of the ASI containing the 3 main study orientations

- 2 cohorts of mixed 1st year psychology students (n= 165 and 118)

<table>
<thead>
<tr>
<th>Orientation</th>
<th>Deep Approach</th>
<th>Surface Approach</th>
<th>Achieving Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample 1</td>
<td>Sample 2</td>
<td>Sample 1</td>
<td>Sample 2</td>
</tr>
<tr>
<td>Mean (g)</td>
<td>0.45*</td>
<td>-0.23</td>
<td>0.37</td>
</tr>
<tr>
<td>Reproducing</td>
<td>-0.12</td>
<td>0.44*</td>
<td>-0.08</td>
</tr>
<tr>
<td>Achieving</td>
<td>0.31</td>
<td>0.14</td>
<td>0.46*</td>
</tr>
</tbody>
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Present correlational analysis

- 1st year medical undergraduate students in two different learning and cultural contexts (n = 128 and 103)

Shortened SPQ

- Shortened to make it easier to administer to students, particularly suitable to assess students longitudinally, which is important for long courses such as medicine

*Example Items*
Surface – I think browsing around is a waste of time, so I only study seriously what's given out in class or in course outlines.
Deep – I find that at times studying gives me a feeling of intense personal satisfaction.
Achieving – I see getting high marks as a kind of competitive game, and I play it to win.

Shortened ASI

- Shortened to make it easier to administer to students, easily and completely finished

*Example Items*
Deep – I have usually set out to understand for myself the meaning of what we had to learn
Surface – Much of what I've learned seems no more than lots of unrelated bits and pieces in my mind
Achieving – On the whole, I've been quite systematic and organised in my studying

2 cultural and learning contexts

- Undergraduate medical program in Australia
- Undergraduate medical program in Hong Kong

- Both use PBL as the approach for the medical program

- Students filled in the two shorten questionnaires before they started their medical program in the first year as part of a PBL conception and perception study using both qualitative (phenomenographic) approach and quantitative (survey) approach respectively

Correlation between two 18-item instruments of SPQ and RASI

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<th>Surface Approach</th>
<th>Achieving Approach</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>HK</td>
<td>Newcastle</td>
<td>HK</td>
</tr>
<tr>
<td>Mean (g)</td>
<td>0.66**</td>
<td>-0.16</td>
<td>0.68**</td>
</tr>
<tr>
<td>Reproducing</td>
<td>-0.15</td>
<td>-0.09</td>
<td>0.37**</td>
</tr>
<tr>
<td>Achieving</td>
<td>0.47**</td>
<td>0.51**</td>
<td>0.03</td>
</tr>
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</table>

**p<0.01; *p<0.05
Conclusions

- Correlational analysis of 2 short inventories to assess approaches to learning indicates moderate correspondence between deep approach and meaning orientation; between surface approach and reproducing orientation; and between achieving approach and achieving orientation.
- Evidence of concurrent validity (ASI and SPQ are measuring similar constructs)
- Both shortened 18-item SPQ and ASI appears useful for large scale, particularly longitudinal, questionnaire research. Both are easy to administer and should be easily and fully completed by students.

Further Reading
