The student engagement in examination –

Evaluating Finnish first year students' engagement to their studies

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Starting points for evaluating the first year students’ engagement

- The expansion of higher education has led to an increased requirement to support the diverse student population (‘massification’ and widening participation)
  - starting points for attending university differ
  - more heterogenic student population begin their university studies (i.e. non-traditional and first-generation students)

- Increasing concern with the first-year experience and its’ significance for performance, retention and future success in studies (e.g. Lähteenoja, 2009)

- The majority of the reported research on the first-year experience is based on single institution studies, often with small samples of students and from a single programme of study (see Harvey, Drew & Smith, 2006)
  - lack of systematic evaluation of first year experience and quality of student engagement
Aims and research questions

• **General aim**: to develop the theory-based questionnaire for research on student engagement and test its functionality and reliability for the future research purposes

• Research questions

1. What kind of relations emerge between the elements of student engagement and students’ own experience of engagement?

2. What kind of relations appear between the students’ motives for attending university and the elements of student engagement?
The student-centered process view of engagement

Engagement seen as an interactional relationship between:
  a) sense of belongingness,
  b) proceeding participation, and
  c) artistry of academic learning

Dimensions of the engagement process

In our earlier qualitative study based on the same model, we got confirmation to its functionality in practice (Poutanen et. al 2012):

• **academic skills** as tools for engagement
  - students experienced the need for various studying skills
  - shortcomings in the skills make the progress of studies decisively difficult

• **social practices of support and guidance** enabling engagement
  - studying includes many kinds of guided activities from mass-lectures to long-lasting small group communities
  - unsatisfactory studying was often described as lonely and compulsive performing

• **proceeding participation** constructing engagement
  - experiences of participation in academic teaching and learning communities, scientific communities and in student peer group communities which support studying
  - the significance of peer group communities was often estimated most important
• personal **meaning of studies** as prerequisite for engagement
  – experiences of meaning of studies and suitability of studying field

• **sense of belonging** deepening engagement
  – sense of belongingness develops in the long run with encounters and shared practices

• **learning identity** as a result of engagement
  – the learning identity in university is constructed through affirmative and negative learning experiences: the students reflect what they wish to be or what they are supposed to be

(Poutanen et. al 2012, 29–40)
Designing and piloting the engagement evaluation questionnaire (EEQ)

- The engagement questionnaire was outlined from theory-based six sub-scales mentioned before (6-8 self-made items per sub-scale, total 50 items)

- In addition, there was one specific question estimating the strength of engagement:
  - “Estimate on scale 0 –100, how strongly are you engaged on the studies at the moment.”

- Respondents also evaluated their motives for attending university education by a question-set applied from SMAU (Student Motivations for Attending) measurement (Cote & Levine, 1997; 2000)
  - Five sub-scales of motives.
Engagement Evaluation Questionnaire (EEQ): Pilot Study Participants

- Students in educational sciences at Universities of Helsinki and Tampere

- Female: n=86; male: n=8; total: n=94,

- Mean age: 24.7 years; Std=7.9

- Three different cohorts:
  1. Students attending a lecture of educational sciences n=50
  2. Tutor training n=29
  3. Study skills course n=16
Engagement Evaluation Questionnaire (EEQ) 
Forming subscales

- Reducing items from 50
- Items were chosen after negotiation on the basis of
  - Internal consistency on test population
  - Diversity
  - Face validity
- Three items / subscale, altogether 18 items
## Engagement Evaluation Questionnaire (EEQ): Scale and subscales

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Questions deals with</th>
<th>N</th>
<th>Mean</th>
<th>Std</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaning of studies</td>
<td>Enthusiasm, significance of studying, suitability of current major</td>
<td>91</td>
<td>16,5</td>
<td>3,1</td>
<td>0.68</td>
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<tr>
<td>Sense of belongingness</td>
<td>Contacts to other students, knowing other students, participation to study-related discussions</td>
<td>91</td>
<td>16,4</td>
<td>3,6</td>
<td>0.71</td>
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<tr>
<td>Social practices of support and guidance</td>
<td>Amount of small group learning and guidance, lonely learning practices</td>
<td>91</td>
<td>12,2</td>
<td>3,5</td>
<td>0.59</td>
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<tr>
<td>Academic skills</td>
<td>Regular, timetabled study practices and experience of good enough academic skills</td>
<td>91</td>
<td>14,7</td>
<td>4,0</td>
<td>0.73</td>
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<tr>
<td>Learning identity</td>
<td>Mastering suitable study practices, fitting to university, growing to become an expert</td>
<td>91</td>
<td>14,5</td>
<td>3,7</td>
<td>0.75</td>
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<tr>
<td>Sense of belongingness</td>
<td>Belonging to university, being part of other students, educational exclusion</td>
<td>91</td>
<td>16,3</td>
<td>3,6</td>
<td>0.76</td>
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<tr>
<td><strong>Whole scale</strong></td>
<td></td>
<td>91</td>
<td>90,3</td>
<td>15,7</td>
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</table>
Research question 1:
Correlations of subscales to each other and to 0–100 question
Cluster groups. K-Mean clustering

Cluster5: Engaged students 45%
Cluster4: average students 31%
Cluster1: problem with study skills 12%
Cluster3: Lonely students with good study skills 10%
Cluster2: excluded 2%
Research question 2: Motives for attending university and the engagement scales

<table>
<thead>
<tr>
<th></th>
<th>Strength of Engagement</th>
<th>Meaning</th>
<th>Participation</th>
<th>Practices</th>
<th>Skills</th>
<th>Identity</th>
<th>Belongingness</th>
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<td><strong>Personal-Intellectual Development</strong></td>
<td>Pearson Correlation</td>
<td>,252**</td>
<td>,532**</td>
<td>,237*</td>
<td>,221*</td>
<td>,145</td>
<td>,439**</td>
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<td>Sig. (2-tailed)</td>
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<td>,000</td>
<td>,021</td>
<td>,031</td>
<td>,160</td>
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<td><strong>Humanitarian</strong></td>
<td>Pearson Correlation</td>
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<td>,403**</td>
<td>,111</td>
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<td>Sig. (2-tailed)</td>
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<td>,086</td>
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<td><strong>Careerism-Materialism</strong></td>
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<td>,131</td>
<td>-,051</td>
<td>,022</td>
<td>,227**</td>
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Conclusions and discussion

- Students’ identity, belongingness and management of study skills were strongly related to their overall experience of their engagement to their studies.
- From the engagement perspective two problematic students groups were identified: Another having problems with study skills and other studying in lonely practices.
- Students who represented personal–intellectual development motives towards their university studies were clearly committed to the studies and represented engagement in almost all the dimensions of engagement.
- During this spring we started longitudinal study with these scales in large sample (n~2400) of first year students to study in detail the processes of engagement.

- It is crucial to support and appropriately challenge students’ true personal interest towards the university studies in many different ways to enhance their engagement.
- It is important to aim at increasing students’ participation in their academic, scholarly community through versatile activating and engaging pedagogical practices (cf. Lonka & Ketonen, 2012; Paavola & Hakkakainen, 2007)
THANK YOU!

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