

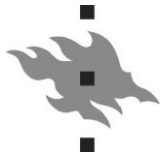


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Two aspects of a deep approach: understanding and critical evaluation – what is valued by medical students?

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Deep and Surface Approaches to Learning

Marton & Säljö, 1976; Entwistle and Ramsden, 1983

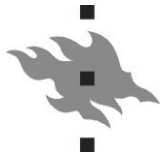
Deep approach

- Intention to understand
- Relating ideas
- Structuring knowledge
- Critically evaluating evidence

Surface approach

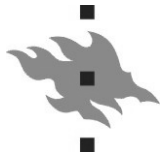
- Intention to reproduce
- Syllabus-boundness
- Rote-learning

Marton, F., Hounsell, D. and Entwistle, N., (eds.) *The Experience of Learning*. 3rd edition. University of Edinburgh, Centre for Teaching, Learning and Assessment.



Aims of the study

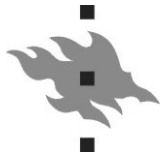
- To investigate two aspects of deep approach: **understanding** and **critical evaluation of evidence**
- To examine how much importance medical and non-medical students (Arts, Law, and Agriculture) assign to each of the two aspects
- To contrast what students think is
 - Generally important in studying
 - Practically applied when preparing for an examination



Examples of Questionnaire items

1. When studying, it is important to strive to understand the meaning of the text
2. It is important to try to draw one's own conclusions based on the information presented on a course

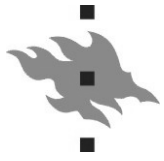
Scale 1-6; 1 = I completely disagree, 6 = I fully agree



Contrasting Importance and Practical Application

1. a) When studying, it is important to strive to understand the meaning of the text
b) I do so when preparing for an examination

2. a) It is important to try to draw one's own conclusions based on the information presented during a course
b) I do so when preparing for an examination



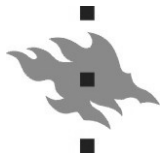
Participants

N=1659, (years 2 and 4-5)

Non-medical data: 865 students, faculties of Arts,
Agriculture and Law

Finnish medical data: 626 students from three
medical schools

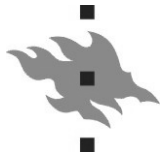
Swedish medical data: 348 students from four
medical schools



Scales created

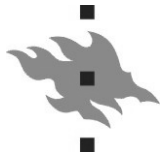
Scale	Number of items	Alphas In three samples
Critical evaluation		
Importance	3	.73, .74, .75
Application	3	.80, .77, .71
Understanding		
Importance	4	.62, .71, .65
Application	4	.72, .76, .71

Maximum likelihood factor analysis with varimax rotation was used to investigate scale structure



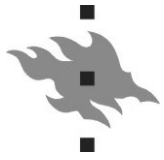
Means in the three samples

	Critical Evaluation Importance	Critical Evaluation Applied	Understanding Importance	Understanding Applied
Non-medical	5.27 (0.71)	3.97 (0.98)	5.40 (0.44)	4.71 (0.66)
Finnish medical	4.57 (0.79)	3.61 (0.96)	5.38 (0.51)	4.74 (0.66)
Swedish medical	4.86 (0.86)	3.56 (1.06)	5.40 (0.53)	4.78 (0.78)



Correlations between scale means and study success indicators

	Critical Evaluation Ideas	Critical Evaluation Applied	Understand. Ideas	Understand. Applied
Non-medical	0.18	0.28	0.13	0.24
Medical	0.08*	0.09*	0.11*	0.18*

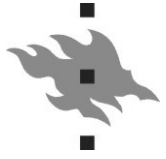


Conclusions

- Medical students value both aspects of a deep approach
- Medical students see understanding as more important than the critical evaluation of evidence
- Understanding is emphasised when preparing for an examination – particularly with medical students

- Both aspects of a deep approach should be taken into consideration in research and educational development

Should critical evaluation be stressed more in medical education?
Or does the (small) difference naturally stem from the differing nature of domains of study?



Thank you!

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