



Importance of engagement during first-year studies

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Introduction

- There is a long history of research on student learning in higher education
- Previous research has applied a number of frameworks when examining studying in university:
 - Student approaches to learning (SAL)
e.g. Biggs 1987; Entwistle & Ramsden, 1983; Lonka & Lindblom-Ylänne, 1996; Marton & Säljö, 1976
 - Self-regulated learning (SRL)
e.g. Boekaerts, 1997; Pintrich, 2000; Vermunt, 1998
 - Motivation (Cognitive and attributional strategies, SAQ)
e.g. Cantor, 1990; Eronen, Nurmi, & Salmela-Aro, 1998; Jones & Berglas 1978; Martin, Marsh, & Debus, 2001; Norem, 1989; Nurmi, Aunola, Salmela-Aro, & Lindroos, 2003

Dynamic Interplay between Students and their Learning Environment



Modified on the basis of
Lindblom-Ylänne & Lonka, 2000



Teacher regulation and student regulation of learning (Vermunt & Verloop, 1999)

Degree of Student regulation of learning	Degree of Teacher regulation of learning		
	Strong	Shared	Loose
High	Destructive friction	Destr/Constr friction	Congruence
Intermediate	Destructive friction	Congruence	Constructive friction
Low	Congruence	Constructive friction	Destructive friction



Results from the pre-study

Three general learning profiles were identified among teacher students:

- *Unstressed students* (38%)
- *Committed students* (29%)
- *Dysfunctional students* (33%)

Committed students invested most time in self-studying.

Dysfunctional students had weakest sense of competence.

No differences in study success.





Aims

We looked at relationships between

- problems in studying (e.g. in self-regulation)
- motivation (optimism vs. task avoidance)
- experienced challenge and competence
- study engagement
- confidence of one's career choice

among first-year students from different domains



Research questions

- 1) What kinds of groups could be found to classify the participants according to exhaustion, lack of regulation, lack of interest, task avoidance, and optimism? (same variables as in pre-study)
- 2) Did these groups differ in terms of domain (faculty)
- 3) How did these groups differ in terms of experienced challenge and competence, study engagement, career choice, invested self-study time and study success?



Participants

The participants were 697 first-year students from

- teacher education,
- chemistry,
- theology,
- law and
- engineering

from the University of Helsinki and Aalto University

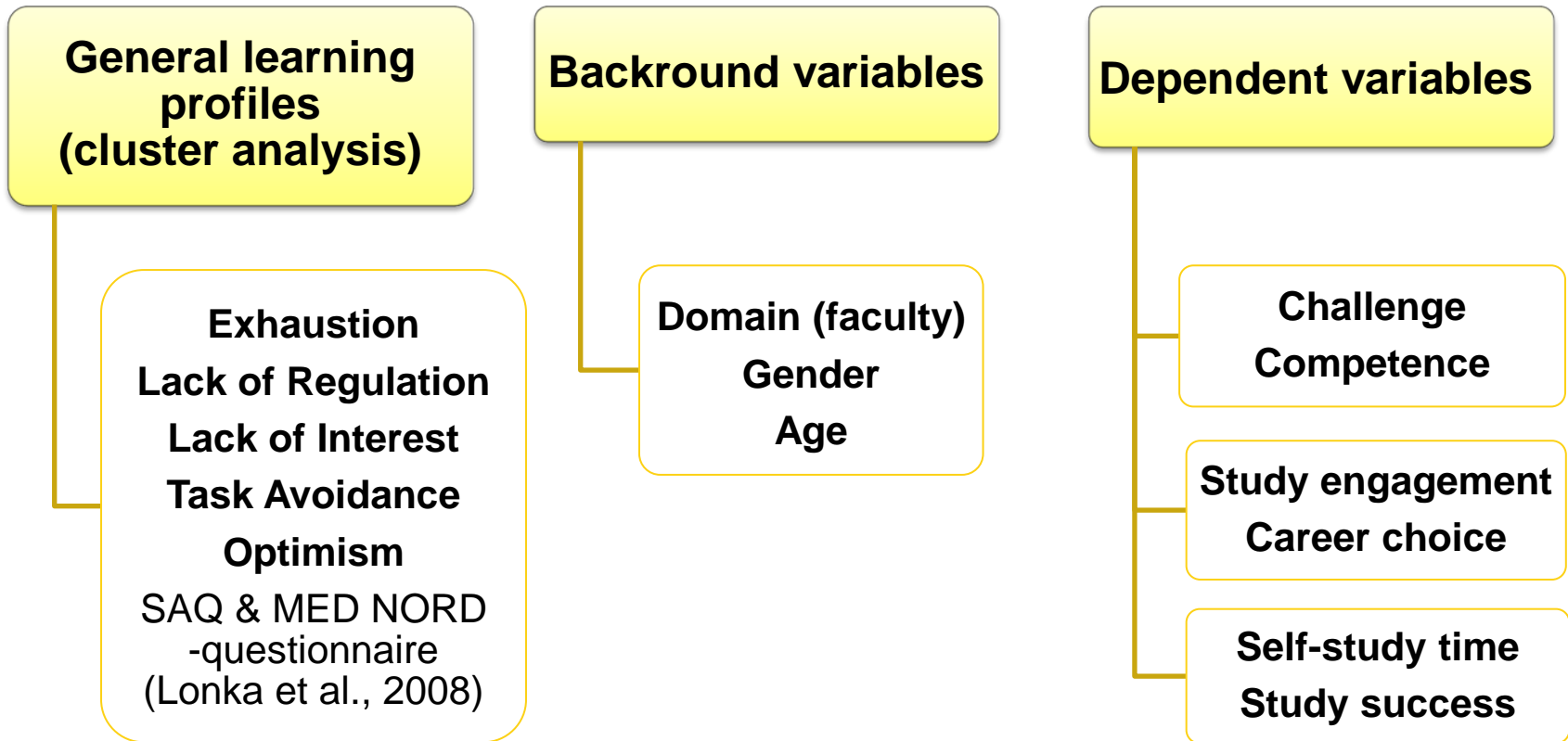


Materials and Procedures

- Pre-test questionnaire measuring problems in studying, optimism, task avoidance, experienced challenge and competence, study engagement, career choice etc.
- Follow-up questionnaire (during the course) measuring academic emotions, invested self-study time etc.
- Study success assessed on basis of course examinations
- Step-wise cluster analysis and various ANOVA tests were conducted (a person-oriented approach)



Variables





Cluster analysis

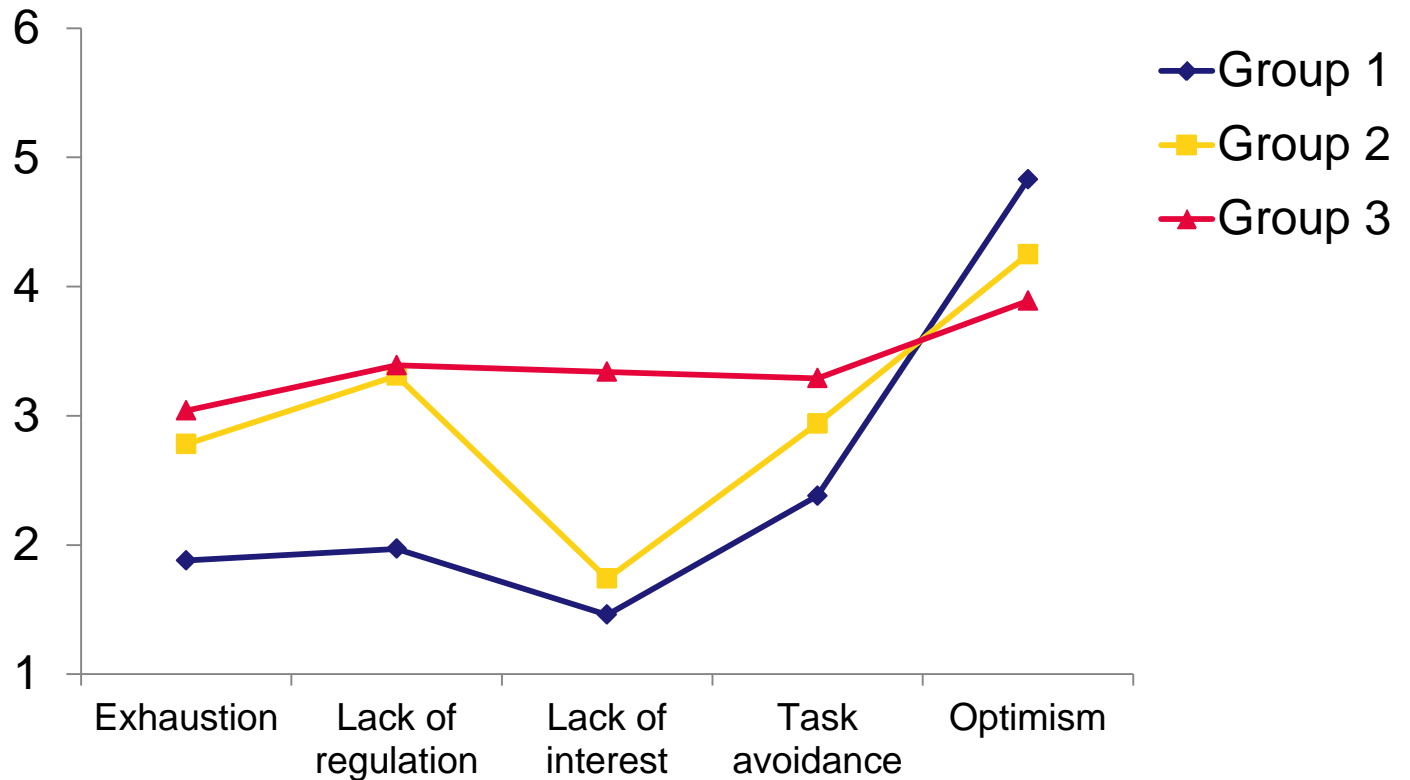


Figure 1. General learning profiles (mean scores) of the groups.



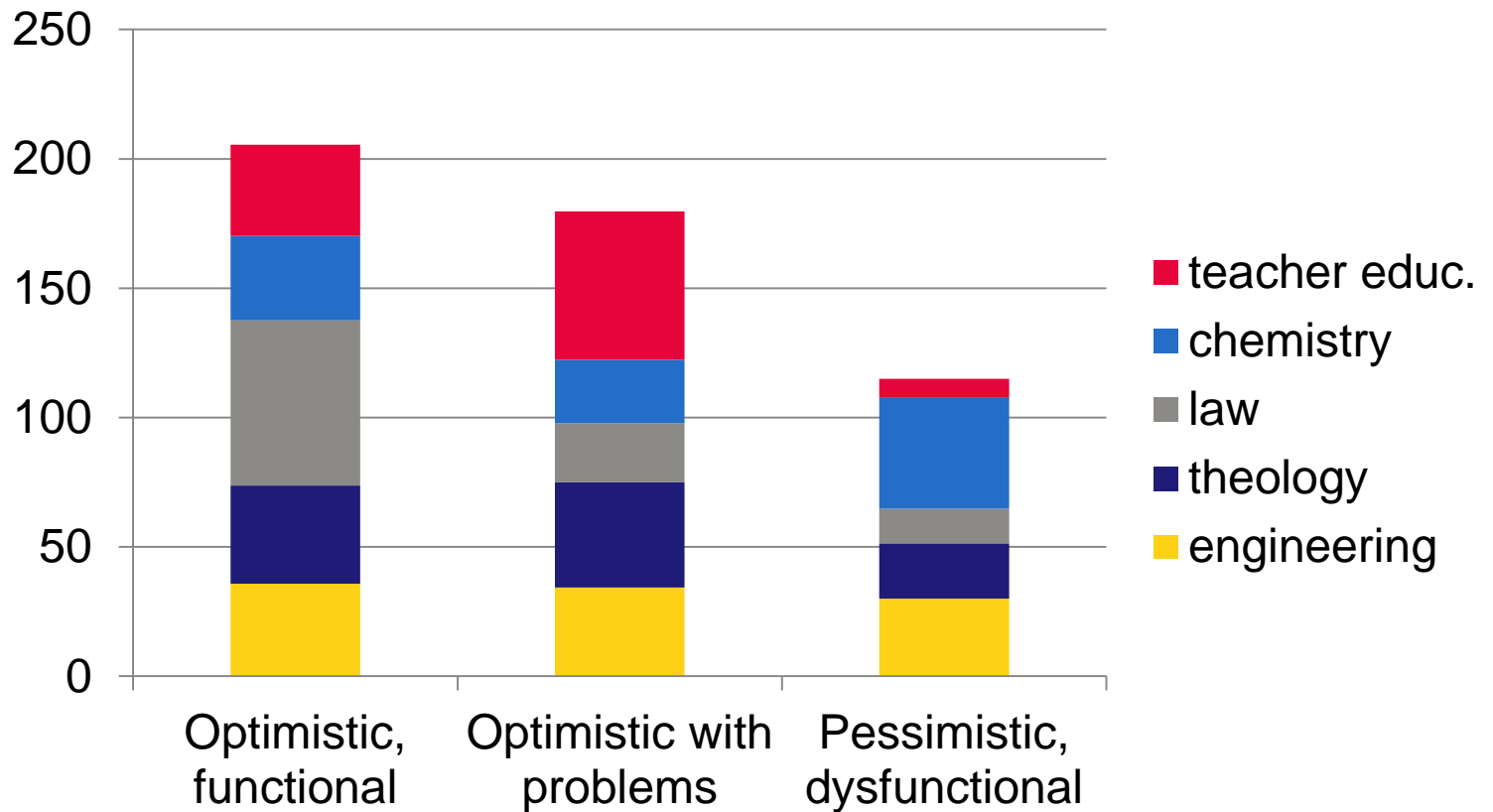
Learning profiles

Three clusters (general learning profiles) were identified:

- *Optimistic, functional students (44%)*
- *Optimistic students with study problems (33%)*
- *Pessimistic, dysfunctional students (23%)*



Differences between domains





Differences between clusters

	Optimistic, functional	Optimistic with problems	Pessimistic, dysfunctional	
Challenge (1-7)	4.6	5.2	4.8	$p = .000$
Competence (1-7)	5.6	4.8	4.2	$p = .000$
Study engagement (1-6)	4.4	4.1	3.4	$p = .000$
Career choice (1-5)	4.2	3.9	2.9	$p = .000$

Table 1. Between-group differences in experienced challenge and competence, study engagement, and confidence of career choice.



Differences in self-study and study success

	Optimistic, functional	Optimistic with problems	Pessimistic, dysfunctional	
Invested self-study (h)	5.5	5.0	1.5	$p = .038$
Planned self-study (h)	13.8	13.0	5.6	$p = .002$
Expected success (0-5)	3.4	3.2	2.6	$p = .007$
Study success (0-5)	3.5	3.3	2.7	$p = .003$

Table 2. Between-group differences in invested and planned self-study, and expected and actual study success.



Discussion with the audience



Our preliminary reflections

- Experienced level of challenge and competence were different → this supports the idea of constructive/destructive friction, where different groups of students react in various ways:
- *Optimistic, functional students* → highest sense of competence, study engagement and confidence of career choice
- *Optimistic with problems* → expressed highest challenge
- *Pessimistic, dysfunctional* → lowest sense of competence, study engagement and confidence of career choice, invested least time in self-study and got lowest grades



Key references

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