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The role of School Environment and Teachers' Basic Psychological Needs Satisfaction and Frustration in predicting (De)motivating Teaching Style

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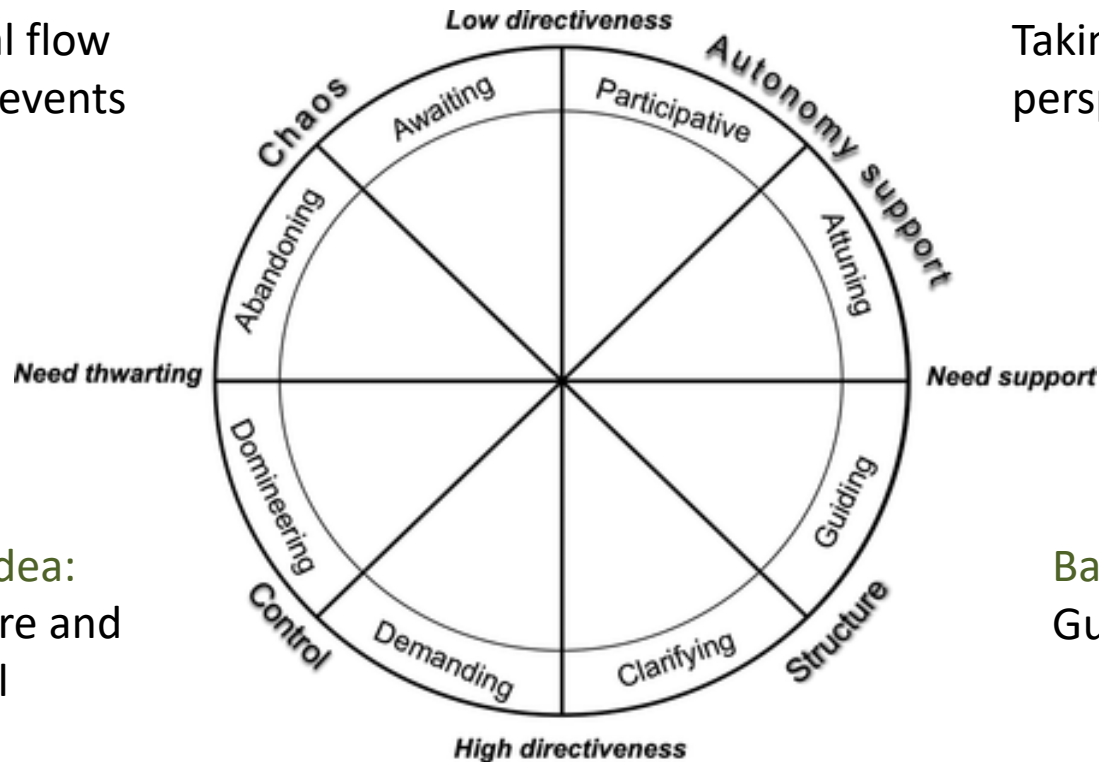
- In order to *educate creative, civic, critical-minded* people teachers need to:
 - Master a great variety didactic and technological competences
 - Be inspiring and empowering, rather than controlling and pressing

Introduction

This study will follow a new, integrated and detailed, circumplex model proposed by researchers at the University of Ghent in which both needs' promoting and blocking teachers' behaviors are analyzed simultaneously, taking into account their similarities, differences and interactions (Aelterman et al., 2018).

Introduction: Circumplex model

Basic idea:
Natural flow
of the events



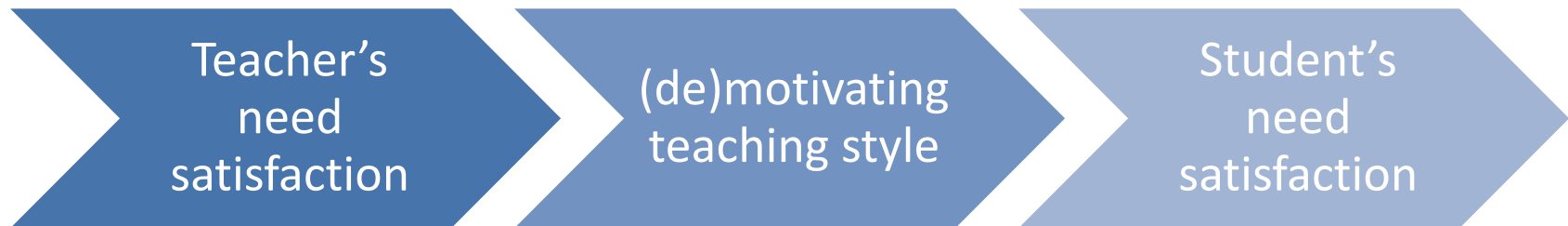
Basic idea:
Pressure and
control

Basic idea:
Taking students'
perspective

Basic idea:
Guiding

-
- What contextual and personal factors contribute to teachers' classroom (de)motivating style? Two perspectives were used:
 - Self-determination theory (Ryan & Deci, 2001)
 - Goal theory (George & Richardson, 2019)

- The Self-determination theory (SDT):
 - Basic psychological needs for autonomy (to be an agent of own behavior), competence (to experience effectiveness), and relatedness (to experience warm and nurturing relationships) have to be satisfied for high level functioning and well-being to occur. In teaching this is related with the choice of motivating teaching styles.



Introduction

- Need satisfaction and frustration is context dependant



Introduction

- Goal theory

Contextual factors

Mastery goal
structure

(learning, task mastery, skill
development)

Performance goal
structure

(achievement, ego
oriented)

Introduction

- Additionally, few previous studies suggest that **consonance** between teachers' personal and **school values** is another contextual factor related to teachers' need satisfaction and frustration (Skaalvik & Skaalvik, 2011).

Goal of the research:



To investigate the predictive value of school goal structure and value consonance for classroom (de)motivating styles controlling for teachers' sociodemographic characteristics (gender, school subject, grade, class size, teaching experience) and teachers' basic psychological needs satisfaction and frustration.

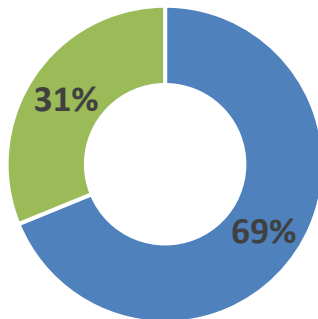
Participants

- 114 teachers from 37 different areas in Lithuania

Distribution by

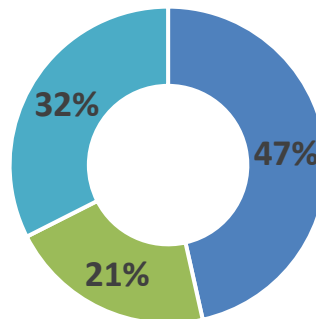
Gender

■ 5th-8th ■ 9th-12th



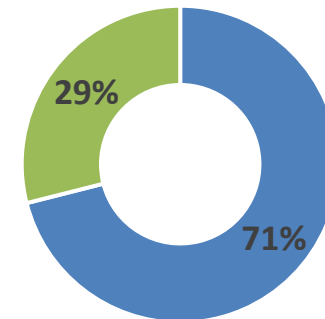
Grade taught

■ 5th-8th ■ 9th-12th ■ 5th-12th



Subject taught

■ High priority, e.g. math ■ Low priority, e.g. arts



- Teaching experience: 1-46 years (M=23.32, SD=11.5)
- Class size: 6-31 students (M=19.07, SD=6.18)

Measures

- **Situations in School questionnaire (Aelterman et al., 2018).** 4 (de)motivating teaching styles:
 - Autonomy supportive (15 items)
 - Structuring (15 items)
 - Controlling (15 items)
 - Chaotic (15 items)
- **Psychological Need Satisfaction and Frustration Scale (BPNSNF, Chen et al., 2015):**
 - Teachers' need satisfaction (12 items)
 - Teachers' frustration (12 items)
- **Perceptions of the School Goal Structure for Students Teacher Scale (Midgley et al., 2000).** Perceived school goal structure by teachers:
 - Mastery goal structure (7 items)
 - Performance goal structure (6 items)
- **Value consonance (Skaalvik & Skaalvik, 2011)** (3 items)

Plan of data analysis

4 Hierarchical multiple regression analyses:
For each (de)motivating teaching style as dependent variable

Predictors:

Step 1

Sociodemographic variables

- Gender (0 male, 1 female)
- Subject (0: low priority, 1: high priority)
- Grade (00: 5-12, 01: 9-12, 10: 5-12)
- Class size
- Teaching experience

Step 2

Subjective variables

- Teachers' need satisfaction
- Teachers' need frustration

Step 3

Contextual variables

- Mastery goal structure
- Performance goal structure
- Value consonance

Results: Autonomy supportive teaching style

Independent variables	1 st step		2 nd step		3 rd step	
		β		β		β
Gender		0.03		0.09		0.06
School subject		-0.14		-0.17		-0.16
Grade		0.01		0.05		0.03
Class size		-0.07		-0.07		-0.07
Teaching experience		0.17		0.19*		0.16
Basic psychological need satisfaction				0.42***		0.31**
Basic psychological need frustration				0.01		0.07
Mastery goal structure						0.22*
Performance goal structure						0.01
Value consonance						0.07
	R^2	0.05		0.21		0.26
	ΔR^2	-		0.17**		0.05
	F	1.01		4.05**		3.58***

Results: Structuring teaching style

Independent variables	1 st step		2 nd step		3 rd step	
		β		β		β
Gender		0.04		0.07		0.05
School subject		0.08		0.07		0.08
Grade		0.06		0.10		0.07
Class size		0.02		0.02		0.03
Teaching experience		0.18		0.21*		0.17*
Basic psychological need satisfaction				0.44***		0.28*
Basic psychological need frustration				0.14		0.21*
Mastery goal structure						0.37**
Performance goal structure						-0.06
Value consonance						0.01
	R^2	0.05		0.19		0.30
	ΔR^2	-		0.14***		0.11**
	F	1.17		3.57**		4.35***

Results: Controlling teaching style

Independent variables	1 st step		2 nd step		3 rd step	
		β		β		β
Gender		-0.15		-0.19*		-0.22*
School subject		0.14		-0.17		0.21*
Grade		0.02		0.01		-0.01
Class size		0.30**		0.29**		0.24**
Teaching experience		0.09		0.09		0.04
Basic psychological need satisfaction				-0.03		-0.11
Basic psychological need frustration				0.23*		0.27*
Mastery goal structure						0.13
Performance goal structure						0.30**
Value consonance						0.19
	R^2	0.12		0.18		0.30
	ΔR^2	-		0.06*		0.12**
	F	2.84*		3.24**		4.39***

Results: Chaotic teaching style

Independent variables	1 st step		2 nd step		3 rd step	
		β		β		β
Gender		-0.01		-0.05		-0.08
School subject		-0.06		-0.02		-0.04
Grade		0.06		0.06		0.10
Class size		0.15		0.14		0.12
Teaching experience		-0.04		-0.04		-0.03
Basic psychological need satisfaction				0.02		0.12
Basic psychological need frustration				0.31**		0.31**
Mastery goal structure						-0.33**
Performance goal structure						0.12
Value consonance						0.19
	R^2	0.03		0.12		0.21
	ΔR^2	-		0.09**		0.09*
	F	0.62		1.97		2.68**

Conclusions:

- Teachers apply the autonomy supportive teaching style more when:
 - their needs are satisfied;
 - they perceive school environment as mastery goals oriented.
- Teachers apply structuring teaching style more, when:
 - their needs are both satisfied and frustrated;
 - they perceive school environment as mastery goals oriented;
 - they have greater teaching experience.

Conclusions:

- Teachers apply controlling teaching style more when:
 - they perceive school environment as performance goals oriented
 - their needs are frustrated
 - they teach larger classes
 - they teach high priority subjects
 - they are males

Conclusions:

- Teachers apply chaotic teaching style more when:
 - their needs are frustrated
- Teachers apply chaotic teaching style less when:
 - they perceive school environment as mastery goals oriented.

Conclusions:

Overall, the results indicate that for the choice of (de)motivating teaching styles both contextual and subjective factors are important.

However, distinct factors contribute to the choice of specific (de)motivating styles.