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The role of teachers' instructional practices for shaping students' academic motivation

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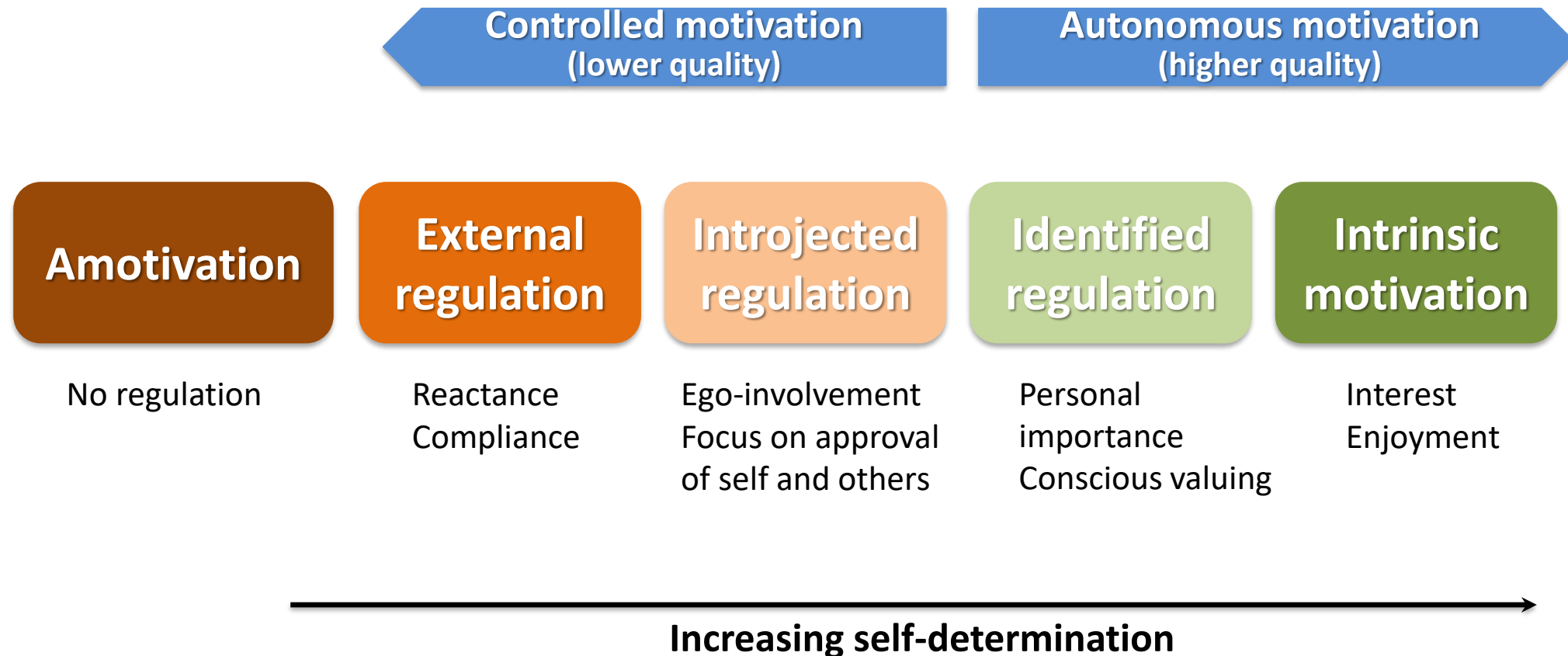
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- Self-determination theory (SDT; Ryan & Deci, 2000):
 - Natural tendency and potential to move towards well-being
 - Vulnerability to ill-being and poor adjustment
 - Social context (e.g. school) can facilitate or undermine growth

Introduction

- Academic motivation
 - driver for reaching learning goals
 - indicator of growth at school

Introduction: motivation in SDT



Introduction

- Teachers can influence the motivation of their students by adopting the instructional style that supports or thwarts three basic psychological *needs of autonomy, competence and relatedness* (Vansteenkiste, Ryan, 2013).



Demotivating teachers



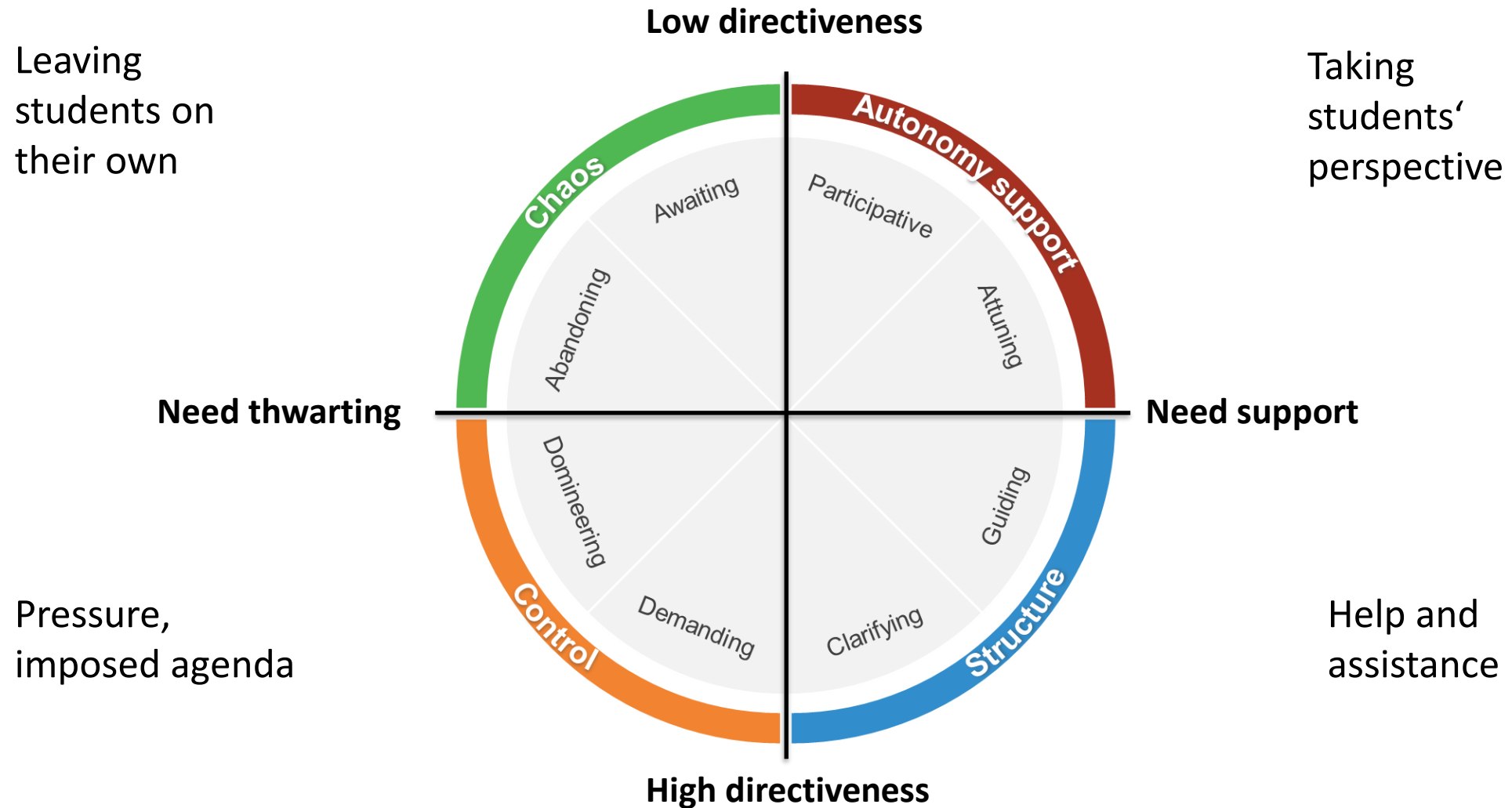
Controlling
Chaotic
Cold

Motivating teachers



Support autonomy
Provide structure
Involved

Introduction: Teaching wheel



Goal of this study

Determine the predictive value of 8 (de)motivating teaching dimensions for different types of students' academic motivation

Participants



374 Lithuanian students in 7th-8th grade



187
(50%)



151
(40%)

Age 12 – 14 ($M_{age} = 13,43$)

- **Situations in School Questionnaire (SISQ; Aelterman et al., 2019)**
- 15 situations; 8 (de)motivating teaching styles:
 - Participative (5 items) } Autonomy
 - Attuning (10 items) } support
 - Guiding (8 items) } Structure
 - Clarifying (7 items) }
 - Demanding (8 items) } Control
 - Domineering (7 items) }
 - Abandoning (10 items) } Chaos
 - Awaiting (5 items) }

Measures: Example of SISQ situation

The class period begins. Your math teacher:

- 1 2 3 4 5 6 7 Provides a clear, step-by-step schedule and overview for the class period.
- 1 2 3 4 5 6 7 Doesn't plan too much. Instead, takes things as they come.
- 1 2 3 4 5 6 7 Insists firmly that you must learn what you are taught—his/her duty is to teach, your duty is to learn.
- 1 2 3 4 5 6 7 Is interested to know what the students know about the learning topic.

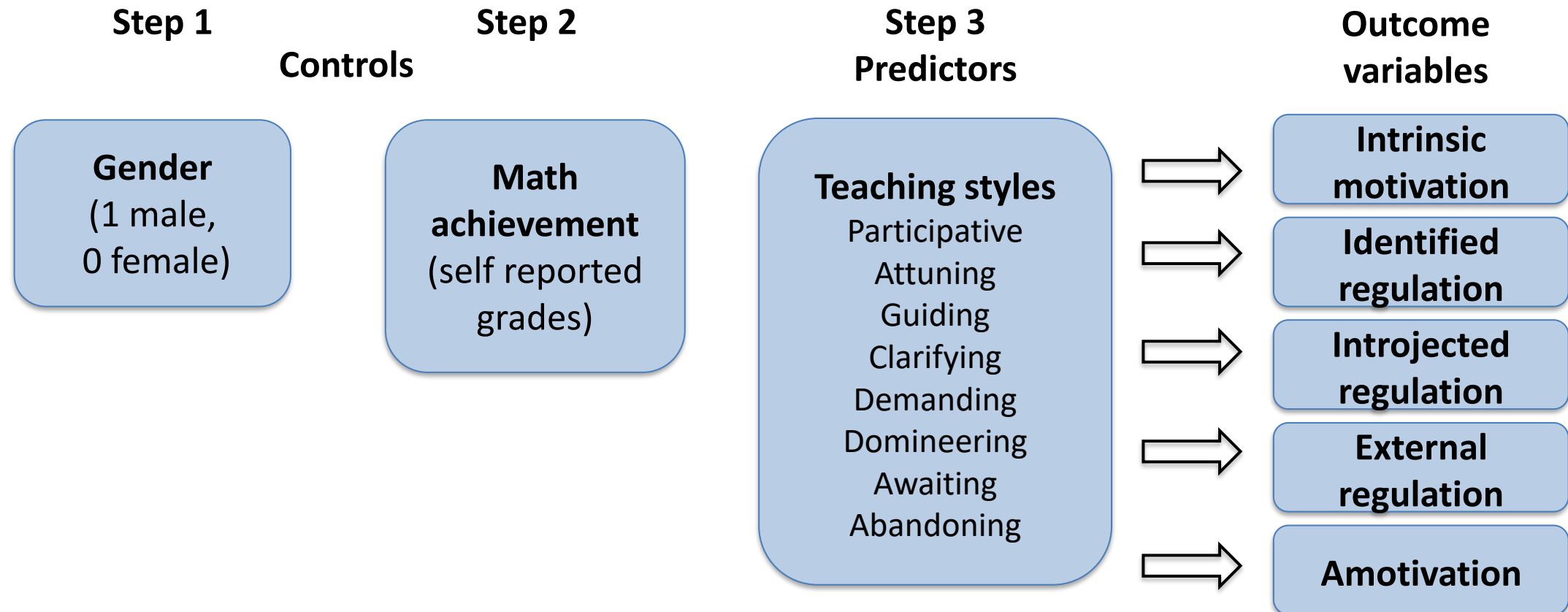
Measures

- **Academic Self-Regulation Scale (Ryan, Connell, 1989) modified by Vansteenkiste et al. (2009)**
- 4 types of academic motivation (4 items each):
 - Intrinsic motivation
 - Identified regulation
 - Introjected regulation
 - External regulation
- **Academic Motivation Scale (Vallerand et al., 1989):** Amotivation (4 items)

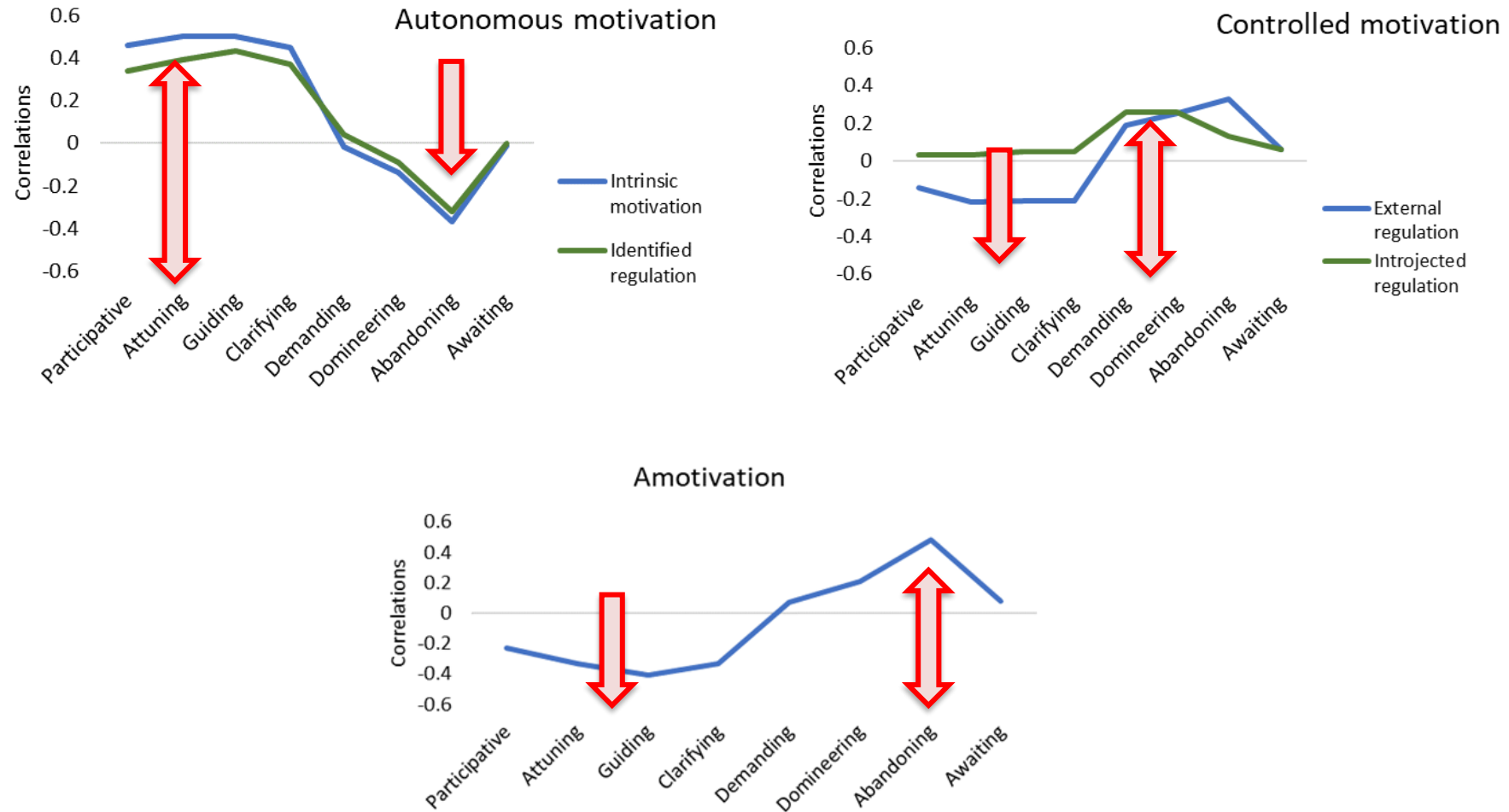
All measures were adapted for math classes: “why do you study math?”

Plan of data analysis

5 Hierarchical multiple regressions:
For each type of motivation as dependent variable



Results: Correlations



Outcome: Intrinsic motivation

| Independent variables | Step 1 (β) | Step 2 (β) | Step 3 (β) |
|-----------------------|--------------------|--------------------|--------------------|
| Gender | -0.19** | -0.18** | -0.11* |
| Achievement | | 0.33*** | 0.28*** |
| Participative | | | 0.26*** |
| Attuning | | | 0.19* |
| Guiding | | | -0.002 |
| Clarifying | | | 0.12 |
| Demanding | | | -0.03 |
| Domineering | | | -0.04 |
| Abandoning | | | -0.07 |
| Awaiting | | | 0.03 |
| | R^2 0.04 | 0.15 | 0.44 |
| | ΔR^2 - | 0.11*** | 0.29*** |
| | F 11.51** | 25.74*** | 22.63*** |

Outcome: Identified regulationion

| Independent variables | Step 1 (β) | Step 2 (β) | Step 3 (β) |
|-----------------------|--------------------|--------------------|--------------------|
| Gender | -0.09 | -0.08 | -0.02 |
| Achievement | | 0.3*** | 0.24*** |
| Participative | | | 0.17* |
| Attuning | | | 0.11 |
| Guiding | | | 0.07 |
| Clarifying | | | 0.05 |
| Demanding | | | 0.05 |
| Domineering | | | -0.08 |
| Abandoning | | | -0.13 |
| Awaiting | | | 0.09 |
| | R^2 0.08 | 0.1 | 0.29 |
| | ΔR^2 - | 0.09*** | 0.18*** |
| | F 2.42 | 16.75*** | 11.69*** |

Outcome: Introjected regulation

| Independent variables | Step 1 (β) | Step 2 (β) | Step 3 (β) |
|-----------------------|--------------------|--------------------|--------------------|
| Gender | 0.01 | 0.01 | 0.02 |
| Achievement | | 0.05 | 0.06 |
| Participative | | | 0.05 |
| Attuning | | | -0.01 |
| Guiding | | | 0.05 |
| Clarifying | | | -0.08 |
| Demanding | | | 0.17* |
| Domineering | | | 0.14 |
| Abandoning | | | 0.03 |
| Awaiting | | | 0.03 |
| | R^2 0.00 | 0.002 | 0.07 |
| | ΔR^2 - | 0.002 | 0.07** |
| | F 0.02 | 0.34 | 2.68** |

Outcome: External regulation

| Independent variables | Step 1 (β) | Step 2 (β) | Step 3 (β) |
|-----------------------|--------------------|--------------------|--------------------|
| Gender | -0.04 | -0.05 | -0.05 |
| Achievement | | -0.17** | -0.13* |
| Participative | | | 0.02 |
| Attuning | | | -0.19 |
| Guiding | | | 0.16 |
| Clarifying | | | -0.16 |
| Demanding | | | 0.15 |
| Domineering | | | 0.07 |
| Abandoning | | | 0.17* |
| Awaiting | | | -0.01 |
| | R^2 0.001 | 0.03 | 0.17 |
| | ΔR^2 - | 0.03** | 0.14*** |
| | F 0.42 | 4.76** | 5.86*** |

Outcome: Amotivation

| Independent variables | Step 1 (β) | Step 2 (β) | Step 3 (β) |
|-----------------------|--------------------|--------------------|--------------------|
| Gender | -0.05 | -0.06 | -0.09 |
| Achievement | | -0.32*** | -0.21*** |
| Participative | | | -0.04 |
| Attuning | | | -0.03 |
| Guiding | | | -0.14 |
| Clarifying | | | -0.03 |
| Demanding | | | 0.01 |
| Domineering | | | 0.01 |
| Abandoning | | | 0.37*** |
| Awaiting | | | -0.07 |
| | R^2 0.002 | 0.10 | 0.35 |
| | ΔR^2 - | 0.10*** | 0.25*** |
| | F 0.519 | 17.39*** | 15.54*** |

Conclusions

- Four instructional styles had unique effects for motivation:
 - Participative (intrinsic and identified)
 - Attuning (intrinsic)
 - Demanding (introjected)
 - Abandoning (external and amotivation)

Conclusions

- Not all styles are equally (de)motivating
- Most **beneficial** for motivation:
 - *participative*
 - encouraging students' initiative, suggestions
 - providing choice
 - *attuning*
 - nurturing students' interests and curiosity
 - aligning learning tasks with what learners find personally important and meaningful

Conclusions

- Most ***harmful*** for motivation:
 - *demanding*
 - requiring discipline, pointing on duties
 - tolerating no contradiction
 - threatening with sanctions if students don't comply
 - *abandoning*
 - giving up on students
 - allowing students to do their own thing

- Recommended
 - Adopt the general need supportive attitude; hear students perspectives
 - Stay away from need thwarting approaches, especially leaving the students with perceptions of being on their own (abandoned)