

# THE RELATIONSHIP BETWEEN 9TH GRADE STUDENTS' READING MOTIVATION, READING BEHAVIOR, AND COMPREHENSION

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# WHY STUDYING SECONDARY SCHOOL STUDENTS' READING COMPREHENSION?

Reading  
comprehension

Secondary  
school students

European Commission (2006); Taboada, Tonks, Wigfield, & Guthrie (2009); Boardman, Klingner, Buckley, Annamma, & Lasser (2015); Wolters, Denton, Francis, & York (2014)

# INTRODUCTION

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Reading  
comprehension

Reading  
motivation

Reading  
behavior

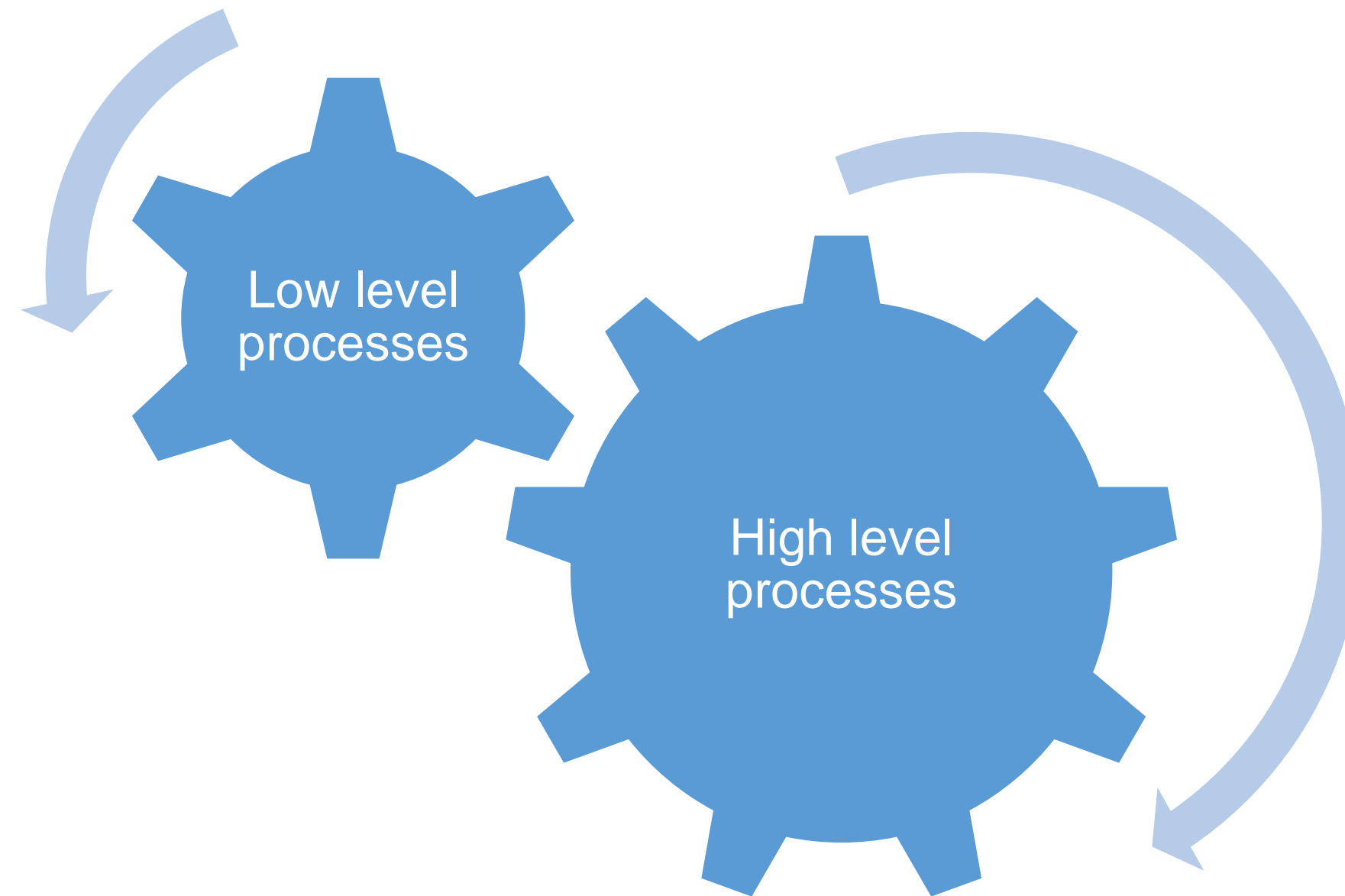
Reading  
comprehension

Reading  
motivation

Reading  
behavior

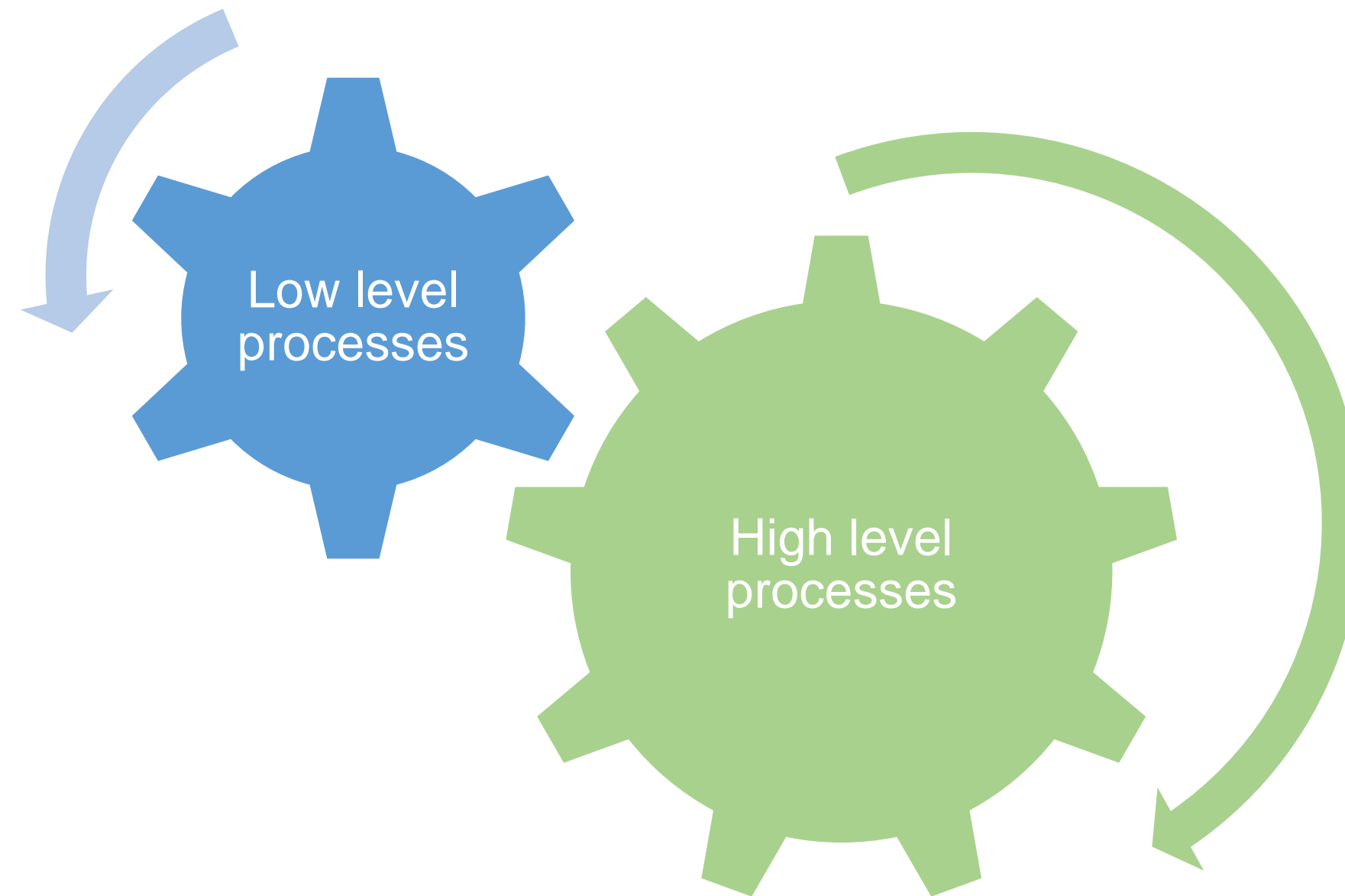
# READING COMPREHENSION

= ability to gain meaning from what is read



# READING COMPREHENSION

= ability to gain meaning from what is read



Reading  
comprehension

Reading  
motivation

Reading  
behavior



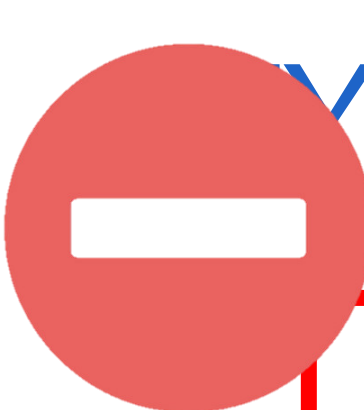
# READING MOTIVATION

## **Self-determination theory**

(Deci, Ryan, Vallerand, & Pelletier, 1991; Vansteenkiste, Zhou, Lens & Soenens, 2005)

Controlled  
reading  
motivation

Autonomous  
reading  
motivation



# TYPES OF MOTIVATION

Reasons to read

Controlled reading motivation

Punishment, reward, expectation

Shame, blame, proud, fear

Autonomous reading motivation

Personal value, usefulness

Passion, pleasure, interest



# READING SELF-CONCEPT

= students' perception of their own reading competency

(Martin, Mullis, & Kennedy, 2007)



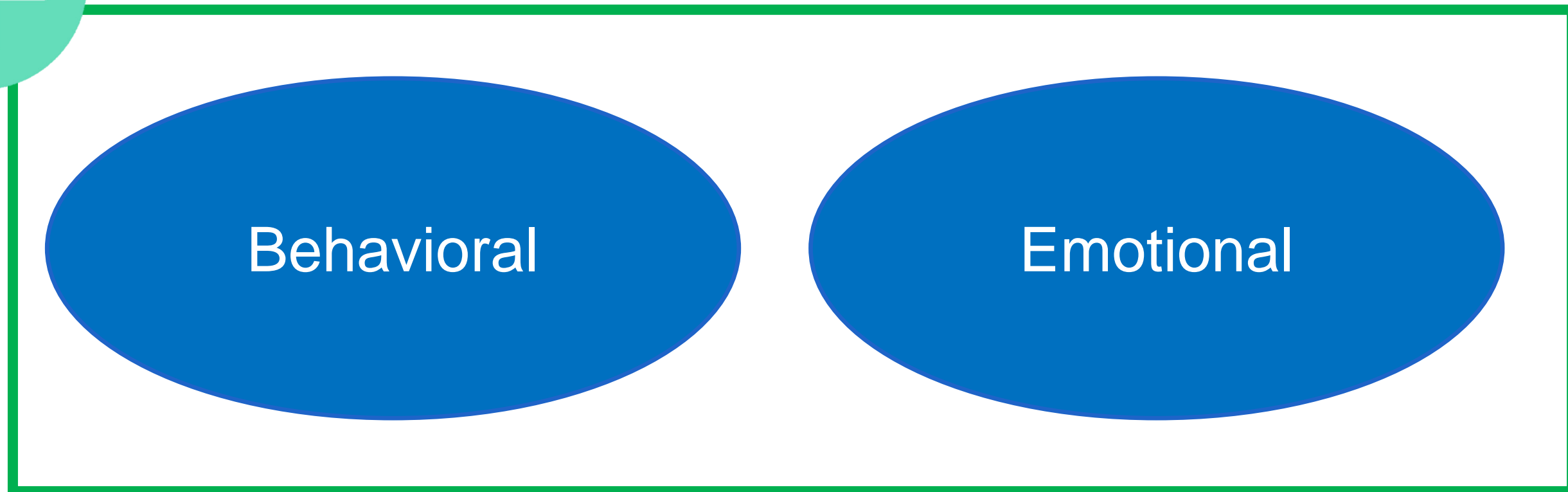
Reading  
comprehension

Reading  
motivation

Reading  
behavior

# READING ENGAGEMENT

= quality of students' involvement during the reading activity (Fredricks, Blumenfeld, & Paris, 2004)

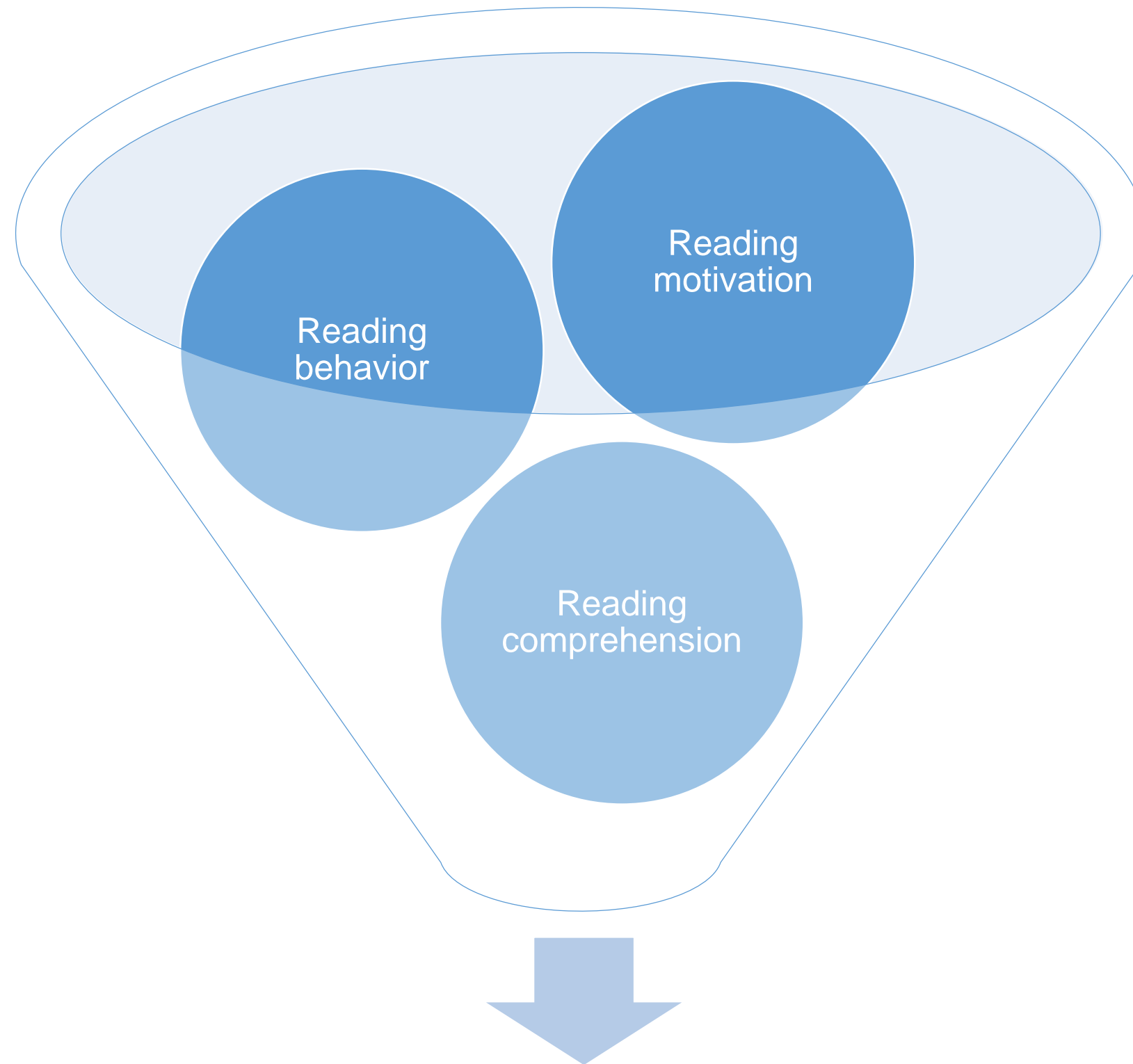




# READING FREQUENCY



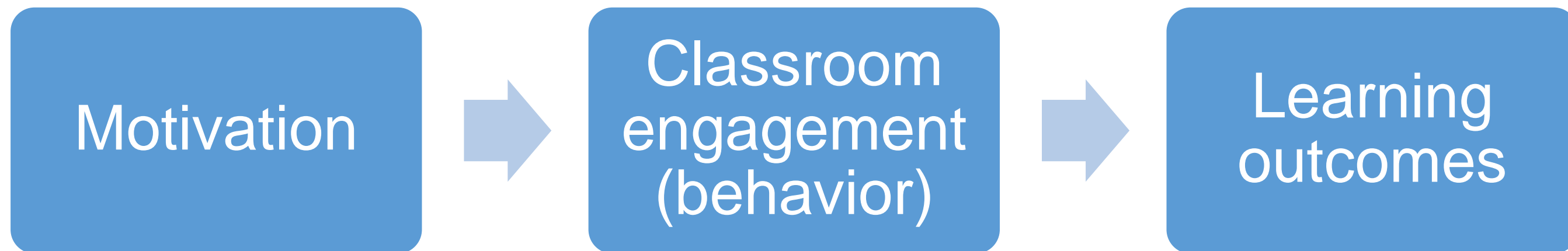
(Mol & Bus, 2011; Schiefele et al, 2012)



**Model?**

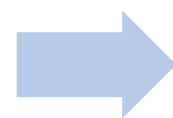
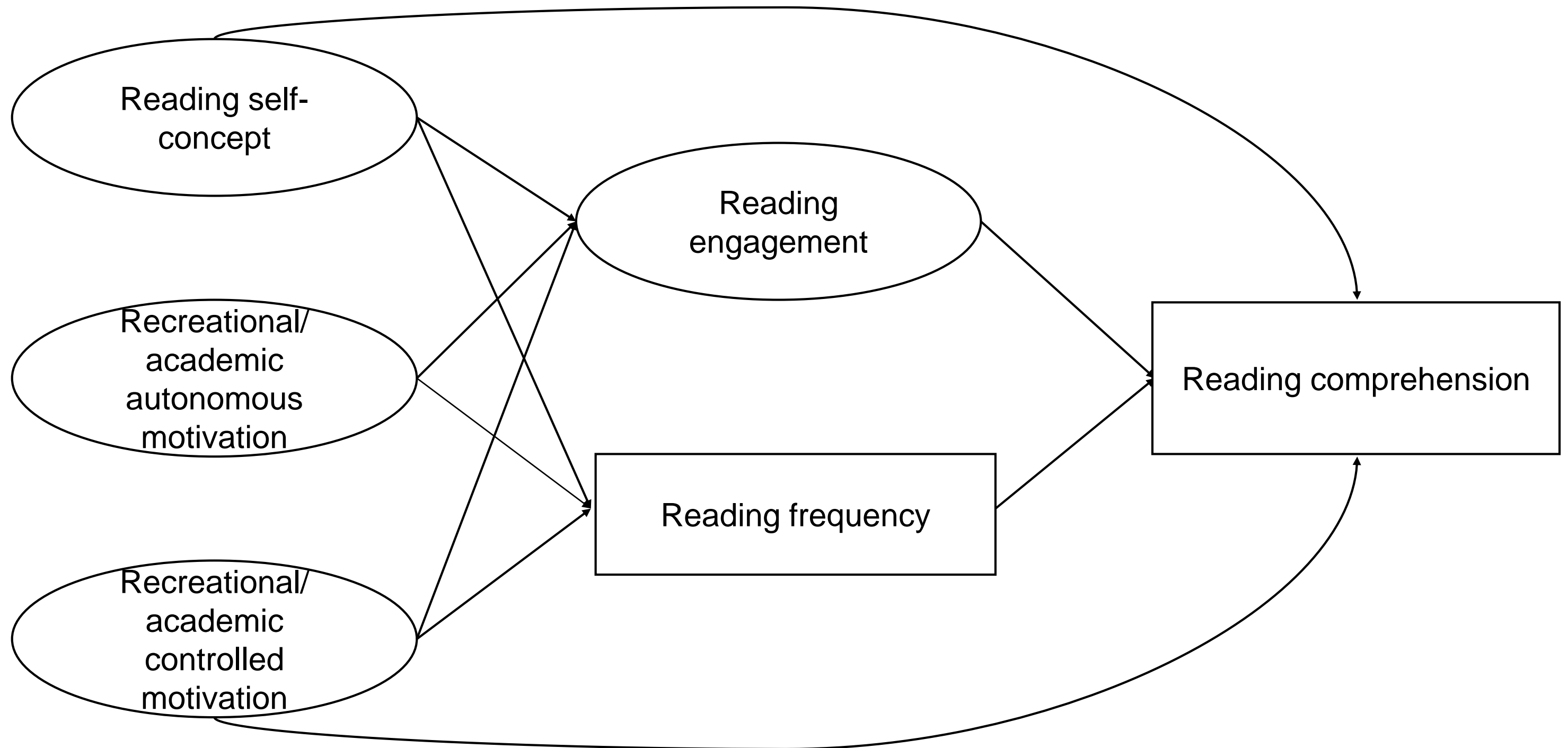
# THEORY

## **Motivation mediation model** (Jang, Kim, & Reeve, 2012)





# HYPOTHESIZED MODEL (DE NAEGHEL ET AL, 2012)



# RESEARCH QUESTIONS

- Contribution of **reading motivation and reading self-concept** to reading comprehension?
- Contribution of **reading behavior** to reading comprehension?
- Reading behavior as a **mediator** between reading motivation and reading comprehension?
- Differences between reading motivation in the **recreational and academic context**?
- Differences between **primary and secondary school** students?

# SECONDARY SCHOOL STUDENTS

- Decline in reading motivation (Van Elsäcker & Verhoeven, 2003)
- Extra concerns about reading comprehension (Paul & Clarke, 2006)
- Decline in recreational reading frequency (OECD, 2010)
- Stronger contribution of reading frequency to reading comprehension (Mol & Bus, 2011)
- Increasing differences across students (e.g. educational tracks) (Giambona & Porcu, 2015)

# METHODOLOGY

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# METHODOLOGY



29 schools  
194 classes  
2485 9th-grade students



Standardized reading comprehension test  
Online student questionnaire

- Reading frequency (Martin, Mullis, & Kennedy, 2007)
- Reading engagement (Reeve et al, 2004)
- SRQ reading motivation (De Naeghel et al, 2012)
- Reading self-concept (Martin, Mullis, & Kennedy, 2007)



Structural equation modeling (R, lavaan)

# READING COMPREHENSION

7 texts

46 multiple choice questions

*e.g. "What is the main topic of this text?"*



IRT analysis

Score between -3 and 3

Ordinal reliability: .79

# READING MOTIVATION – SRQ



Type	Number of items	Example	Internal consistency
Autonomous reading motivation	8	I enjoy reading I think reading is valuable	.95
Controlled reading motivation	9	I feel guilty when I do not read I will be punished when I do not read	.79

5-point Likert scale: 'I do not agree at all – I definitely agree'

# READING SELF-CONCEPT



Variable	Number of items	Example	Internal consistency
Reading self-concept	5	Reading is harder for me than for many of my classmates	.74

5-point Likert scale: 'I do not agree at all – I definitely agree'



# READING ENGAGEMENT



Variable	Number of items	Example	Internal consistency
Reading engagement	5	My attention is dispersed during reading – My attention is focused during reading	.70

Bipolar format

# RECREATIONAL READING FREQUENCY



Variable	Number of items	Example	Internal consistency
Reading frequency	1	How often do you read in your free time?	/

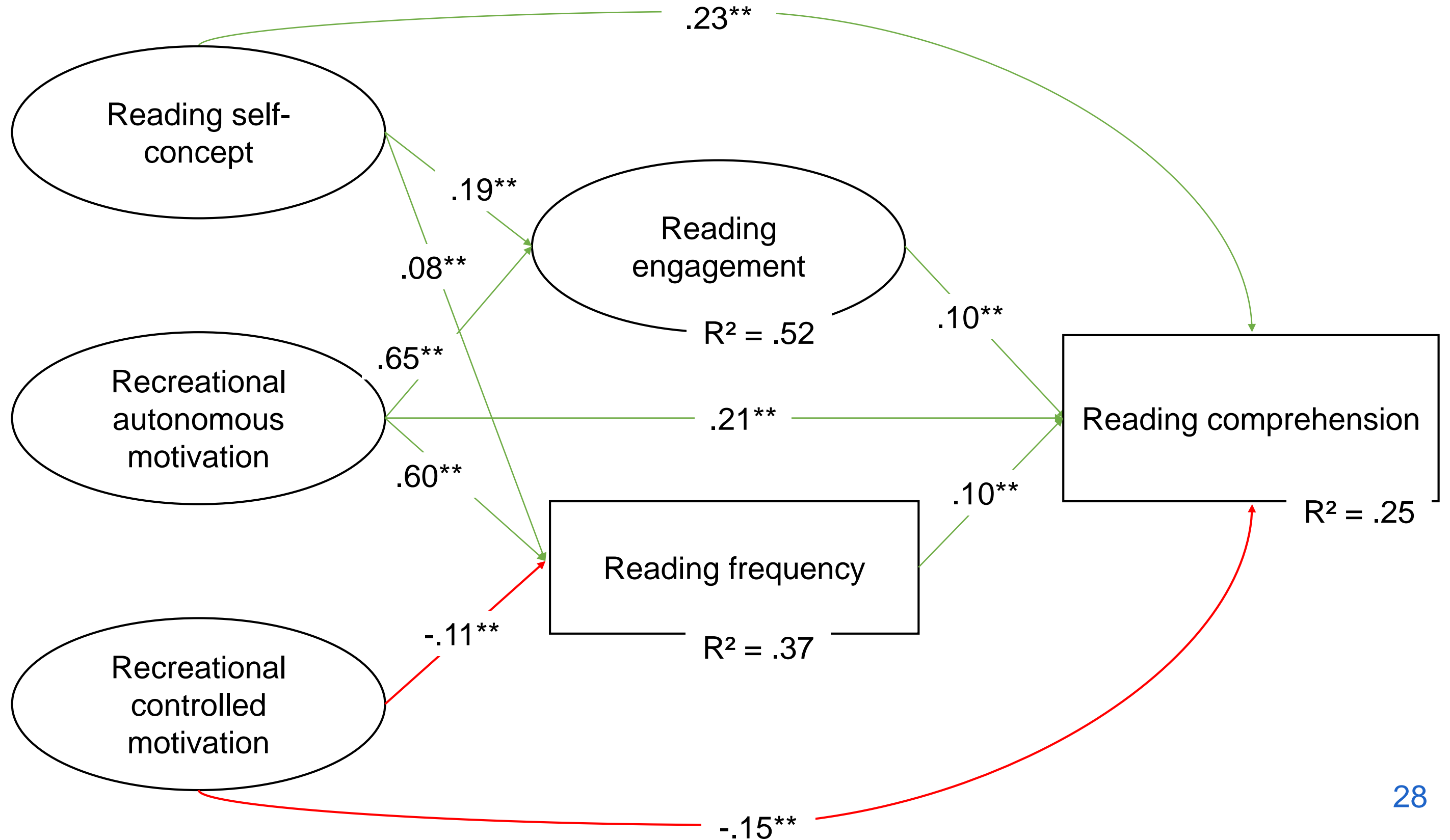
4-point Likert-type scale

# FINDINGS

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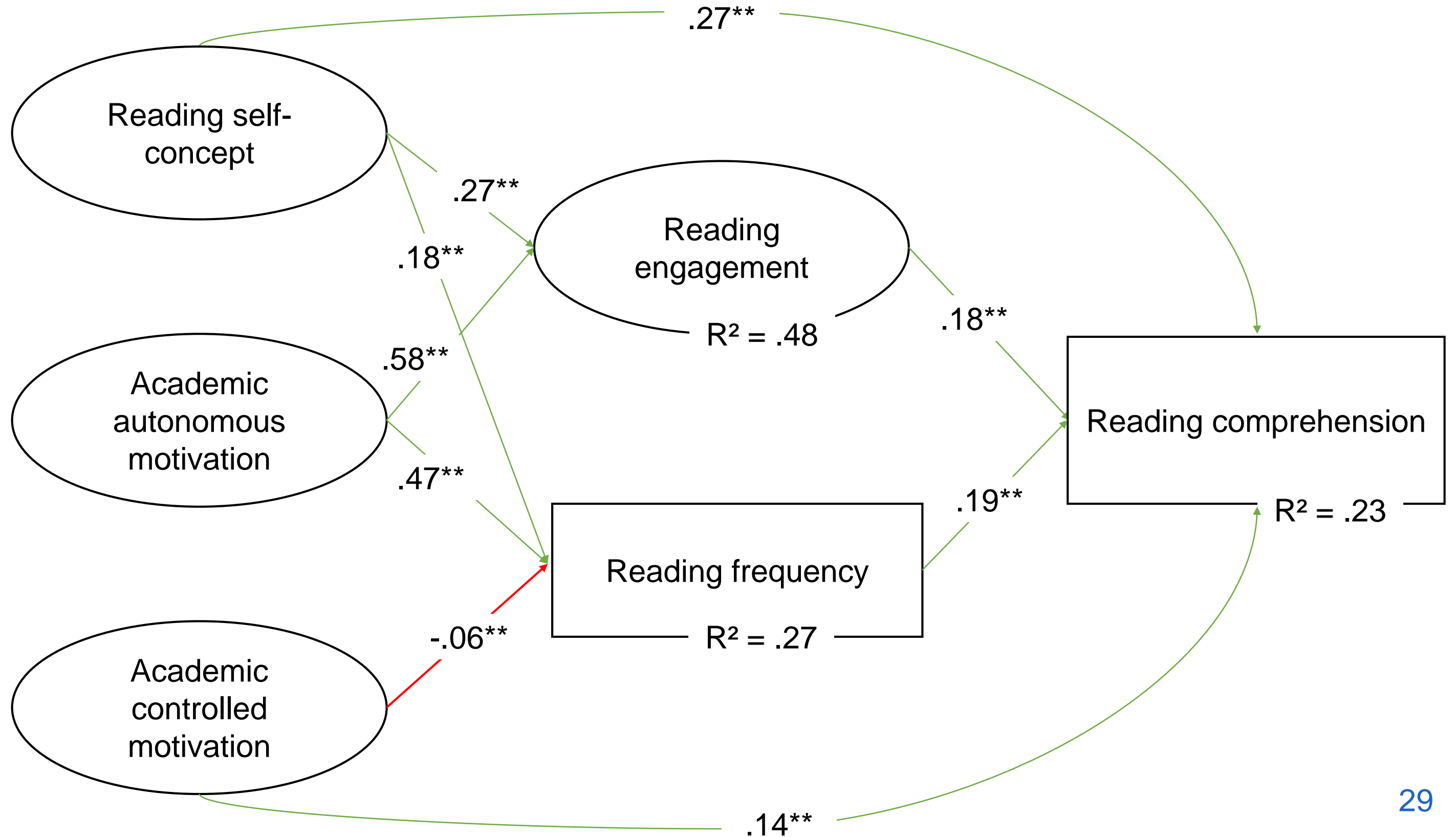
# 9TH-GRADE STUDENTS (RECREATIONAL CONTEXT)

CFI .94  
RMSEA .05  
SRMR .05



# 9TH-GRADE STUDENTS (ACADEMIC CONTEXT)

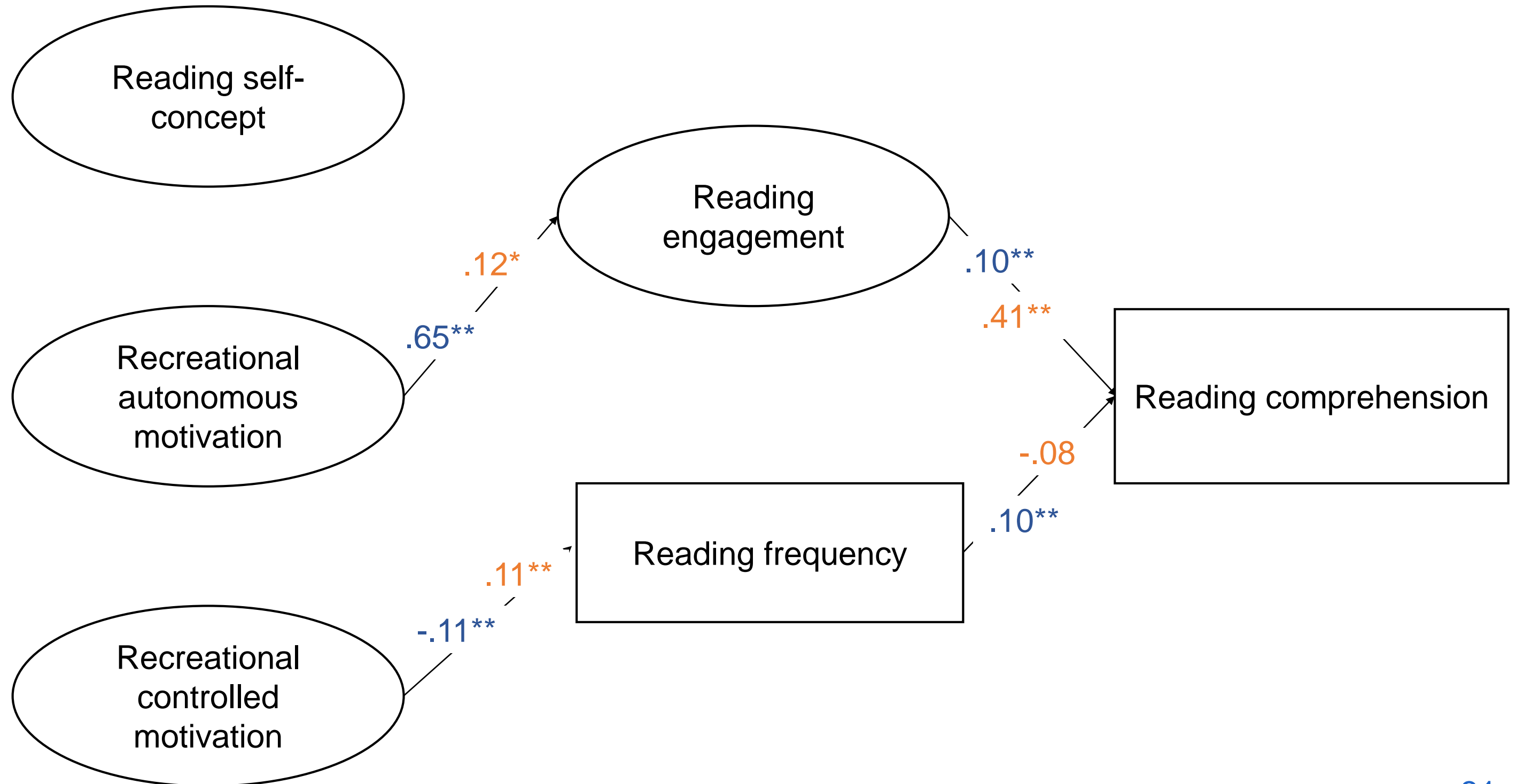
CFI .92  
RMSEA .05  
SRMR .05



# PRIMARY VS SECONDARY SCHOOL STUDENTS

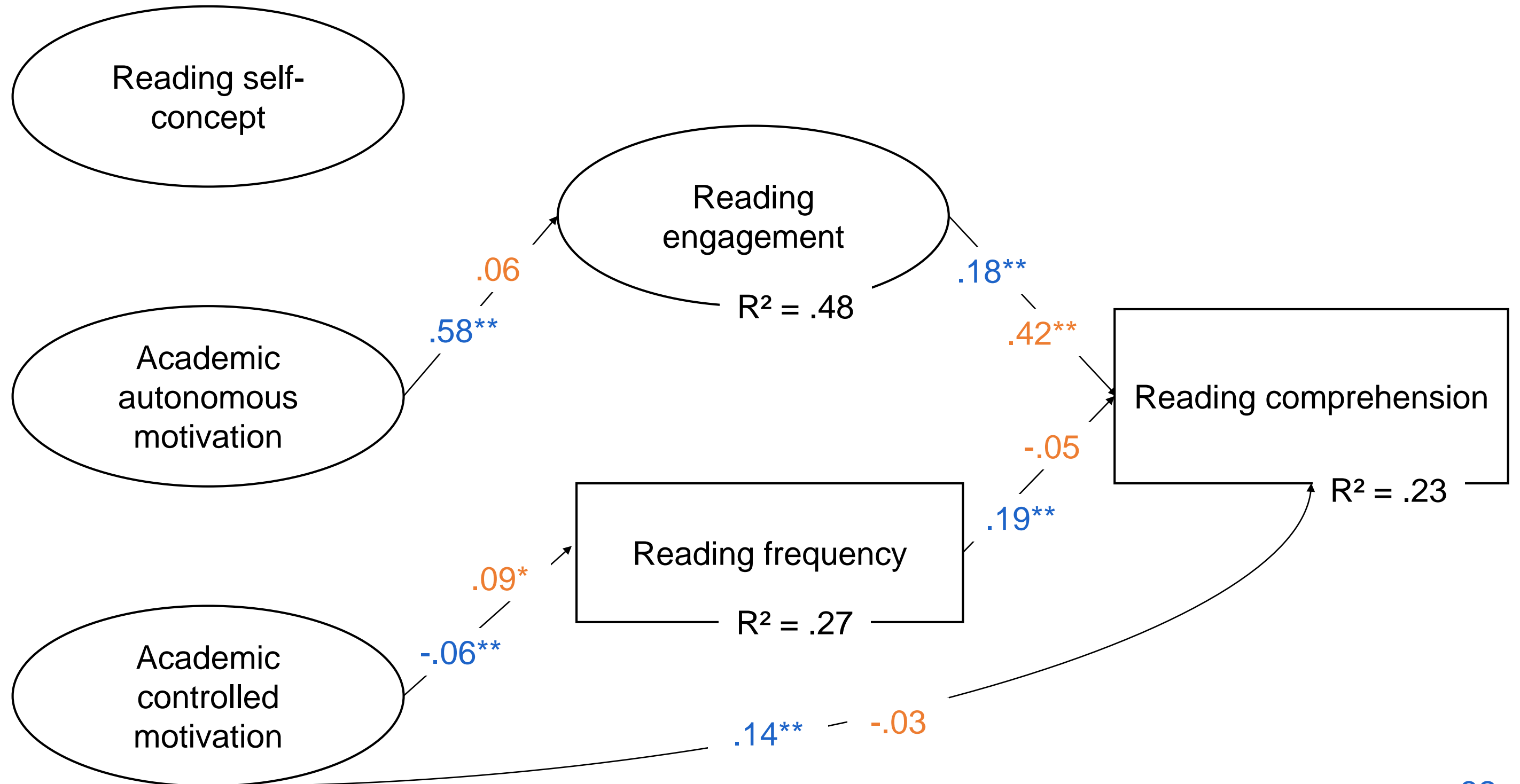
# RECREATIONAL CONTEXT

Primary school  
Secondary school



# ACADEMIC CONTEXT

Primary school  
Secondary school





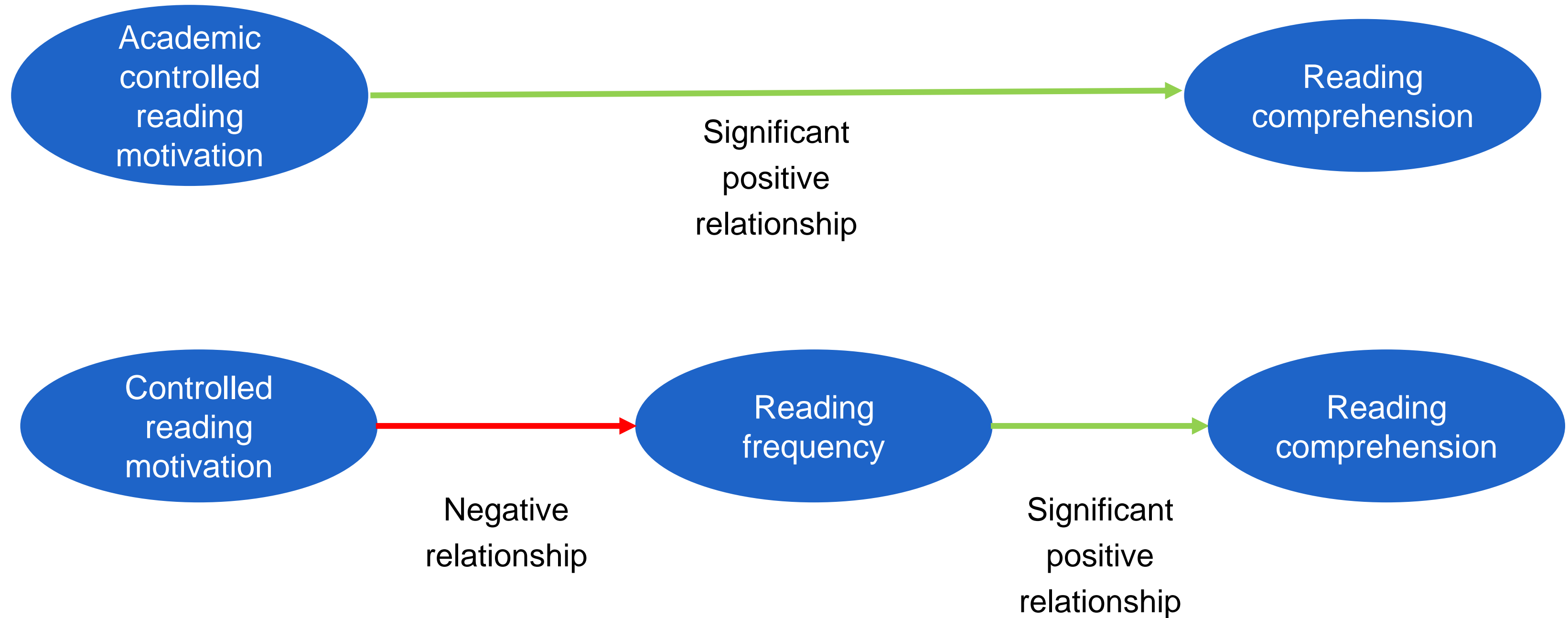
# DISCUSSION



# AUTONOMOUS READING MOTIVATION



# CONTROLLED READING MOTIVATION



# IMPLICATIONS

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# IMPLICATIONS

**Design of reading comprehension instruction or interventions for secondary school students**



# PLANS FOR THE FUTURE

## **Vocational students**

### **Autonomous reading motivation**

Autonomy

Relatedness

Competence



THANK  
YOU





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Indirect path	Indirect effect	Total effect
Reading self-concept → reading engagement	.02**	.25**
Reading self-concept → reading frequency	.01**	.24**
Recreational autonomous reading motivation → reading engagement	.06**	.28**
Recreational autonomous reading motivation → reading frequency	.06**	.27**
Recreational controlled reading motivation → reading engagement	-.00	-.15**
Recreational controlled reading motivation → reading frequency	-.01**	-.16**
Academic autonomous reading motivation → reading engagement	.11**	.03
Academic autonomous reading motivation → reading frequency	.09**	.01
Academic controlled reading motivation → reading engagement	.00	.14**
Academic controlled reading motivation → reading frequency	-.01*	.14**

# DESCRIPTIVES

Variable	Academic track	Technical track	Vocational track	Total
Reading comprehension	0.50 (0.73)	-0.32 (0.67)	-0.96 (0.62)	0.00 (0.90)
Recreational autonomous reading motivation	2.90 (1.20)	2.23 (1.14)	2.12 (1.10)	2.56 (1.22)
Recreational controlled reading motivation	1.73 (0.66)	1.66 (0.63)	1.81 (0.81)	1.72 (0.68)
Academic autonomous reading motivation	2.62 (0.99)	2.21 (1.00)	2.18 (1.00)	2.42 (1.01)
Academic controlled reading motivation	2.95 (0.82)	2.78 (0.86)	2.45 (0.93)	2.81 (0.87)
Reading self-concept	3.22 (0.58)	3.01 (0.65)	2.91 (0.72)	3.10 (0.64)
Reading engagement	4.23 (1.05)	3.75 (1.15)	3.55 (1.40)	3.96 (1.18)
Reading frequency	1.52 (1.17)	1.07 (1.13)	0.86 (1.13)	1.27 (1.18) <sup>43</sup>

# CORRELATION TABLE

	1	2	3	4	5	6	7	8
1. Reading comprehension	-							
2. Reading self-concept	.34 **	-						
3. Autonomous recreational reading motivation	.37 **	.26 **	-					
4. Autonomous academic reading motivation	.23 **	.18 **	.81 **	-				
5. Controlled recreational reading motivation	-.12 **	-.12 **	.21 **	.27 **	-			
6. Controlled academic reading motivation	.16 **	-.00	.21 **	.30 **	.40 **	-		
7. Reading engagement	.28 **	.28 **	.53 **	.50 **	.11 **	.17 **	-	
8. Reading frequency	.33 **	.24 **	.59 **	.46 **	.03	.10 **	.40 **	-