The relation between 9th grade students’ reading motivation, reading behavior, and comprehension

Abstract
Research indicates that reading motivation is a central aspect in fostering reading comprehension. The relationship between reading comprehension and reading motivation can have important implications, especially during the adolescence, where the reading motivation of students tends to decline. The present study aims to analyze the relation among 9th grade students’ reading motivation (i.e., both in the recreational and academic context), reading self-concept, reading behavior (i.e. engagement and frequency), and reading performance (i.e. comprehension). Participants included 2494 9th grade students from 195 classes in Flanders (Belgium). Both direct and indirect relations are taken into account, using structural equation modeling to analyze the relations. The model has been tested in a previous study among a group of 5th and 6th grade students. According to the results, student’s reading motivation and their reading self-concept are independently related to their reading behavior and reading comprehension. Comparing the model analyzed among the group of 5th and 6th graders and the group of 9th graders, most results remain stable. However, there are some disparities.

Extended summary
Aims
In our 21st century reading comprehension is considered as one of the most essential key competences in view of lifelong learning and academic success (European commission, 2006). In the reading literature, motivation is often studied as a critical factor in determining students’ reading comprehension (e.g. Taboada, Tonks, Wigfield & Guthrie, 2008; Wolters, Denton, York & Francis, 2014). In this respect, the aim of the present study is to clarify the relations among reading motivation, reading behavior (i.e. frequency and engagement) and reading comprehension. The hypothesized model is summarized in Figure 1. De Naeghel, Van Keer, Vansteenkiste, and Rosseel (2012) have clarified these relationships with 5th and 6th grade children. The present study examines the same hypothesized model in a group of 9th graders. Studying this age group is especially relevant because on the one hand research indicates that about 22% of secondary school students lack age-appropriate reading comprehension skills (Paul & Clarke, 2016). Furthermore, reading motivation declines as children grow older (e.g. Van Elsäcker & Verhoeven, 2003), especially during the transition into adolescence. This might imply that the relations found in younger age groups of primary school children do not necessarily remain stable or comparable for secondary school students.
Methodology

Participants. A total of 2494 9th grade students from 195 classes in Flanders participated. The sample consisted of 53.7% girls and 46.3% boys. Students overall mean age was 15.06 years (SD = 0.61).

Instruments and procedure. Students’ reading comprehension was measured by a standardized reading comprehension test of the Dutch organization CITO developed for the 9th grade (CITO B.V. Arnhem, 2013). Students’ reading motivation was measured using the SRQ-Reading Motivation Questionnaire (De Naeghel et al., 2012). Leisure-time reading frequency was measured by a single question, based on the PIRLS student questionnaire (Martin et al., 2007); reading self-concept was as well based on the PIRLS student questionnaire and was measured using a 5-point Likert scale. To assess students’ reading engagement, students filled out 7 items on a bipolar format (Reeve, Jang, Carrel, Jeon, & Barch, 2004).

Data-analysis. Structural equation modeling (SEM) was performed with R, lavaan package, to test the theoretically hypothesized model in figure 1. All variables in the construct were entered as latent constructs, except for reading frequency.

Findings

The results of the SEM models, respectively including recreational and academic reading motivation, are summarized in Figure 2 and Figure 3.
The results confirmed for example the direct relation between reading self-concept, reading motivation, reading engagement and reading frequency on the one hand and reading comprehension on the other hand. Comparing the results of the model tested among 5th and 6th grade students in the study of De Naeghel and colleagues (2012) and among 9th graders, most identified relations are affirmed. However, there are some disparities. For example, reading frequency is positively related to reading comprehension in the model tested among older students and not among younger students.

**Theoretical and educational significance**

**Implications.** This study identified the relationships between reading motivation, reading behavior, and reading comprehension for 9th grade students. Knowledge of these results can alert
teachers and scholars in designing interventions aiming at fostering students’ autonomous reading motivation, especially taken into account the direct and indirect impact. Therefore, it can be an aid to break through the decline in reading motivation among adolescents.

**Limitations and future research directions.** First, the data collected in this study are mainly self-report measures. Future research should, therefore, include qualitative data to obtain a more comprehensive result interpretation (Ng et al., 2015). Second, we should be cautious to interpret these results in view of making statements about causal relationships because cross-sectional data are used. Future research should incorporate a longitudinal design.

**References**


Van Elsäcker, W. (2002). Begrijpend lezen: Een onderzoek naar de invloed van strategiegebruik, leesmotivatie, vrijetijdslezen en andere factoren op het begrijpend lezen van eerste en tweede taalleerders in de middenbouw van het basisonderwijs [Reading comprehension: Studying the impact of strategy use, reading motivation, leisure time reading and other aspects on the reading comprehension of first and second language learners in the middle years of elementary education]. Amsterdam, the Netherlands: Stichting Lezen.