The effectiveness of increased support in reading and its relationship to teachers' affect and children's motivation

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ABSTRACT

The aims of this study were, firstly, to identify different groups of teacher–child dyads on the basis of the longitudinal associations between teachers’ individual support in reading and children’s reading skills, and, secondly, to examine whether the groups thus identified differ with respect to various teacher- and child-related factors. A total of 372 teacher–child dyads were examined. The reading skills of 6- to 7-year-old Finnish-speaking children were measured at the beginning and end of Grade 1. The amount of teachers’ support in reading for a particular child was gathered from teachers by questionnaires. Regression Mixture Modeling identified three latent groups of teacher–child dyads: Among 38% of the dyads, teachers’ increased support in reading for a particular child positively predicted the development of the child’s reading skills; among 13% of the dyads, teachers’ support in reading had no association with the child’s reading skills; and among the remaining 49% of the dyads, children acquired reading skills slowly irrespective of teachers’ efforts to support their learning. Teachers’ individual support in reading was positively related to the reading skills for children who were initially interested in reading, and who showed low levels of externalizing problem behavior. Moreover, teachers experienced less negative affect and reported less teaching-related stress when supporting children whose reading skills were developing faster in respect to reading instruction (vs. when working with children whose acquisition of reading skills developed more slowly).

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1. Introduction

Reading is a major academic skill which children need to acquire during their early school years. Teachers therefore put a lot of emphasis on reading instruction and children’s acquisition of reading skills (Sonnenstein, Stapleton, & Benson, 2010), especially during the first year of schooling. However, research findings suggest that even though children are in the same class and are instructed by the same teacher, their learning experiences and outcomes differ substantially (Connor, Morrison, Fishman, Schatschneider, & Underwood, 2007; Connor, Morrison, & Katch, 2004; Connor et al., 2009). Some previous studies have reported evidence of the positive impact of teachers’ support in reading on the children’s reading development (e.g. Connor et al., 2004; Juel & Minden-Cupp, 2000; Pianta, La Paro, Payne, Cox, & Bradley, 2002). Other studies have shown that teachers’ support does not always enhance the development of children’s reading skills (e.g. Nurmi, Viljaranta, Tolvanen, & Aunola, 2012; Snowling, Gallagher, & Frith, 2003; Torgesen, 2000), or even that teachers’ support in reading can be disproportionately time-consuming in comparison to its apparent impact (Niemit et al., 2011; Vellutino, Fletcher, Snowling, & Scanlon, 2004). One possible explanation for these contradictory findings is that previous research has mainly used a variable-oriented framework and investigated teacher–student dyads as homogeneous groups. That is, previous research has not taken into account the possibility that teachers’ support may have different consequences for the development of children’s reading skills. Consequently, the present study aimed to fill the gap in the existing literature, first, by identifying groups of teacher–child dyads that display different patterns of associations between teachers’ support in reading and the development of children’s reading skills in Grade 1 (Fig. 1), and, second, by determining the possible teacher- and child-related factors that are related to these differential associations.

⁎ This study has been carried out in the Centre of Excellence in Learning and Motivation Research, financed by the Academy of Finland (Nr. 213486 for 2006–2011), and other grants from same funding agency (Nr. 125811 for 2008–2009, Nr. 277299 for 2015–2017, Nr. 268586 for 2013–2017, and Nr. 292466 for 2015–2019).

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1.1. Children’s reading skills and teachers’ support in reading

According to the self-determination theory (SDT; Ryan & Deci, 2000), children’s intrinsic motivation and their later scholastic development depend on how well the three basic psychological needs—competence, relatedness, and autonomy—are satisfied. In school settings, interpersonal climate of the classroom, as well as teacher’s affect, beliefs, and behaviors are important in satisfying the basic needs of the child, and, thus, maintaining children’s motivation for scholastic development (Deci, Vallerand, Pelletier, & Ryan, 1991; Deci & Ryan, 2008). Alternatively, if the social context at school does not allow satisfying the three basic psychological needs, it will diminish intrinsic motivation and later performance. Although many studies have focused on examining the effects of teachers’ support in reading on the development of children’s skills, it has also been suggested that children’s reading skills may influence both the extent to which their teachers provide individualized support in reading (Connor et al., 2004; Connor et al., 2009; Nurmi, 2012; Pressley, Hogan, Wharton-McDonald, Mistretta, & Ettenberger, 1996), and the quality or content of instructional choices (Connor et al., 2009). Previous empirical results indicate that teachers increase the amount of their support when children display poor reading skills (Babad, 1998; Kikas, Silinskas, & Soodla, 2015; Nurmi et al., 2012; Pakarinen, Lerkkanen, Poikkeus, Siekkinen, & Nurmi, 2011). Theoretically, these results are in accordance with the theory of the evocative effect of children’s characteristics on the teacher–student relationship (Nurmi, 2012; Nurmi & Kiuru, 2015; Scarr & McCartney, 1983).

Another set of findings suggest that children with different skill levels benefit from different kinds of instructional practices and support (Connor et al., 2004; Sonnenschein et al., 2010). For example, children with low skills levels and learning disabilities benefit from teacher-directed practices (Adams & Carnine, 2003) or code-focused instruction (Connor et al., 2009), whereas children with high initial skills may benefit more from child-centered practices or meaning-focused instruction (Connor et al., 2009). These results match well with the transactional theory of child development (Sameroff, 2010; Sameroff & Mackenzie, 2003), which emphasizes the reciprocity of teacher–child interactions. Consequently, the reciprocal relationship between children’s reading skills and teachers’ support in reading was considered in the current cross-lagged longitudinal investigation.

1.2. A person-oriented approach

Although vast majority of the studies on the associations between teacher support and pupils’ academic skills have used variable-oriented statistics (e.g., regression analyses, path analyses, and structural equation modeling), some scholars have emphasized the importance of studying groups of individuals rather than the relations between variables at the level of the sample (Bergman, Magnusson, & El-Khoury, 2003). The major advantage of the person-oriented approach (Bergman et al., 2003) over the variable-oriented framework is that it allows the researcher (1) to identify different groups of individuals according to the associations that they show with respect to certain criterion variables (e.g., the development of academic skills and different types of teacher support), (2) to determine the proportion of the sample that shows a particular pattern (Bergman et al., 2003), and (3) to investigate the importance of other variables in predicting membership in the identified groups. In the present study, we expanded our variable-oriented path analyses with a person-oriented approach by using Regression Mixture Modeling (Fig. 1), which, as opposed to the mean-based person-oriented statistical techniques, attempts to find latent groups on the basis of associations between the variables.

1.3. The role of teachers’ affect in the development of children’s reading skills

The vast majority of studies in the field have focused on the support teachers provide and the instructional choices they make in response to the academic skills of each child (see Babad, 1998; Skinner & Belmont, 1993); only a few studies have investigated the role of teachers’ emotions in the association between teachers’ support and children’s reading skills. However, because learning is often an emotionally charged process for children, especially when they have difficulties in learning, some scholars have emphasized that teachers’ emotional reactions,