Reciprocal Associations Among Teaching Quality, Teachers' Work Engagement, and Children's Social

Competence

Your full name: Viola Penttinen

Affiliated authors with institutions: Viola Penttinen, University of Jyväskylä; Eija Pakarinen, University

of Jyväskylä; Marja-Kristiina Lerkkanen, University of Jyväskylä

Affiliation: University of Jyväskylä

Current position: Doctoral student

Title of your paper: Reciprocal Associations Among Teaching Quality, Teachers' Work Engagement,

and Children's Social Competence

# Abstract (300 words)

The purpose of this study was to examine reciprocal associations between teaching quality, teachers' work engagement and children's social competence across grade 1. The participants were 51 Finnish first grade teachers and 815 children from their classrooms. Teaching quality (emotional support, classroom organization and instructional support) was assessed with the Classroom Assessment Scoring System. Teachers filled in questionnaires on their work engagement and rated children's social competence (prosocial and antisocial behavior). The results of the multilevel modeling indicated that high-quality instructional support in fall predicted more prosocial behavior and less antisocial behavior in the classroom in spring. Moreover, children's prosocial behavior in fall predicted higher-quality emotional and instructional support in spring. Teachers' work engagement in fall predicted less antisocial behavior in spring, and children's prosocial behavior in fall predicted teachers' higher work engagement in spring. Finally, teachers' work engagement in fall predicted higher teaching quality in spring. The results suggest that on the one hand, teachers can enhance children's social competence with high-quality instructional support and on the other hand, children's prosocial behavior can be reflected in teaching quality and in teachers' work engagement. Moreover, it is important to support teachers' work engagement as it may be reflected in teaching quality.

**Extended summary** (1000 words, excluding reference list) Include introduction, theoretical background, methods, aims, preliminary findings/findings, results, theoretical and education significance, relevance to the QUINT ambition and the reference list.

## Introduction

In their prosocial classroom model, Jennings and Greenberg (2009) proposed that teachers' social and emotional competence and well-being enables them to create healthy teacher—child relationships, conduct effective classroom management, and implement social-emotional learning in the classroom. This way, a teacher creates a positive classroom climate that enhances children's social, emotional, and academic outcomes. Thus, according to the prosocial classroom model, teachers' occupational well-being is reflected in their teaching quality, which again is reflected in children's outcomes, including their social competence.

One aspect of teachers' occupational well-being is their work engagement. However, earlier research on the associations between teachers' work engagement and teaching quality has been scarce and cross-sectional, and thus has not been able to examine causalities (e.g., Penttinen et al., 2020). Directions of the associations between teaching quality and children's social competence also remain unclear (e.g., see Pakarinen et al., 2020; Siekkinen et al., 2013). Furthermore, although earlier research has shown that teachers' stress is associated with children's lower social competence (Herman et al., 2018; Siekkinen et al., 2013), to date, it is not yet clear whether work engagement as

Reciprocal Associations Among Teaching Quality, Teachers' Work Engagement, and Children's Social Competence

a positive aspect of occupational well-being plays a role in children's social competence. For these reasons, this study aimed to explore reciprocal associations among the teaching quality (emotional support, classroom organization, and instructional support), teachers' work engagement, and children's social competence over the course of first school year.

In the present study, teaching quality was conceptualized with the Teaching through Interactions (TTI) framework developed by Hamre et al. (2013). The TTI framework is based on Bronfenbrenner and Morris's (2006) bioecological model, which suggests that regular interactions that children have, for example, with parents and teachers, are a central driver for their development (Hamre et al., 2013). In TTI, interactions in the classroom are divided under three domains: emotional support, classroom organization, and instructional support.

## Method

Participants of the present study were 51 first grade teachers and 815 7-year-old children from their classrooms who were participating in a follow-up study (Lerkkanen & Pakarinen, 2016–2022) in the 2017–2018 school year. Data of the present study were collected twice during the school year: in fall and spring. Data consisted of video recordings from the classrooms, teacher questionnaires on their work engagement, and teacher ratings on children's social competence.

Teaching quality was assessed with the Classroom Assessment Scoring System (CLASS K-3: Pianta, La Paro et al., 2008). CLASS divides teaching quality into three domains: emotional support, classroom organization, and instructional support. Domains are described in the coding manual (Pianta, La Paro et al., 2008), which guides the assessment of teaching quality in the scale from 1 (low) to 7 (high). Teachers' work engagement was measured with the Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2002). UWES consists of nine items (e.g., "At my work, I feel bursting with energy") that the teachers answered on a scale from 1 (never) to 7 (daily). Teachers also rated children's social competence using the Multisource Assessment of Children's Social Competence Scale (MASCS; Junttila et al., 2006). MASCS consists of 15 items that fall under two domains: prosocial (e.g., "offers help to other children"), and antisocial behavior (e.g., "bothers and annoys other children"). Items were rated on a scale from 1 (never) to 4 (very frequently).

To analyze the data, multilevel models were conducted with Mplus (Muthén & Muthén, 1998-2017) (see schematic representation of the multilevel models, Figure 1). Teachers' work experience, class size, and children's gender were used as control variables in the analysis. Models were conducted separately for the three domains of teaching quality (i.e., emotional support, classroom organization, and instructional support) and two domains of children's social competence (i.e., prosocial and antisocial behavior). Consequently, six models were conducted.

Author: Penttinen, Pakarinen & Lerkkanen Reciprocal Associations Among Teaching Quality, Teachers' Work Engagement, and Children's Social Competence

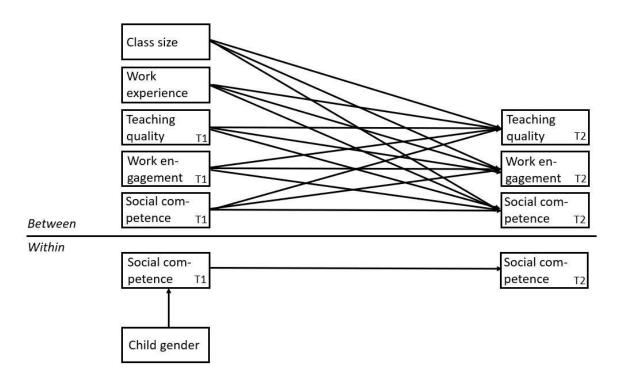


Figure 1. Schematic representation of the models.

Note: T1 = first grade fall; T2 = first grade spring

### **Results**

The results first showed that at the between-level, children's prosocial behavior in fall predicted both the quality of emotional support, albeit marginally significantly, and teachers' work engagement in spring. Moreover, teachers' work engagement predicted subsequent quality of emotional support. At the within-level, children's prosocial behavior at the beginning of grade 1 predicted their prosocial behavior at the end of grade 1, and girls displayed more prosocial behavior than boys. Similarly, children's antisocial behavior in spring was predicted by their preceding antisocial behavior in fall. Boys displayed more antisocial behavior than girls.

In terms of classroom organization, results showed that at the between-level, teachers' work engagement positively predicted subsequent classroom organization. Furthermore, classroom organization positively predicted subsequent children's prosocial behavior, albeit marginally significantly, and teachers' work engagement negatively predicted subsequent children's antisocial behavior, albeit marginally significantly.

The quality of instructional support positively predicted subsequent children's prosocial behavior. Moreover, children's prosocial behavior positively predicted subsequent quality of instructional support in spring, albeit marginally significantly. The quality of instructional support also negatively predicted subsequent children's antisocial behavior. Finally, teachers' work engagement positively predicted subsequent instructional support.

#### Discussion

This study revealed new results on the interplay of teaching quality, teachers' work engagement, and children's social competence. It expands earlier literature by showing that not only does high-quality

Reciprocal Associations Among Teaching Quality, Teachers' Work Engagement, and Children's Social Competence

instructional support predict children's social competence, but children's prosocial behavior also predicts the quality of emotional support and instructional support in the classroom. Moreover, the study is a first opening on the associations between teachers' work engagement and children's social competence: children's prosocial behavior predicts teachers' work engagement, whereas teachers' work engagement predicts less antisocial behavior. Thus, it would be important to support children's social competence as children's prosocial behavior seems to be reflected in both teaching quality and in teachers' work engagement. Finally, the study expanded earlier cross-sectional research by showing that work engagement predicts the quality of all three teaching quality domains. For this reason, it is important to support teachers' occupational well-being. Overall, the results highlight the importance of teachers' occupational well-being and high-quality teaching for children's social competence as well as the role of children's social competence in teachers' work engagement and teaching quality.

### References

Hamre, B. K., Pianta, R. C., Downer, J. T., DeCoster, J., Mashburn, A. J., Jones, S. M., Brown, J. L., Cappella, E., Atkins, M., Rivers S. E., Brackett, M. A., & Hamagami, A. (2013). Teaching through interactions. The Elementary School Journal, 113(4), 461–487. https://doi.org/10.1086/669616

Herman, K. C., Hickmon-Rosa, J., & Reinke, W. M. (2018). Empirically derived profiles of teacher stress, burnout, self-efficacy, and coping and associated student outcomes. Journal of Positive Behavior Interventions, 20(2), 90–100. https://doi.org/10.1177/1098300717732066

Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. Review of Educational Research, 79(1), 491–525. https://doi.org/10.3102/0034654308325693

Junttila, N., Voeten, M., Kaukiainen, A., & Vauras, M. (2006). Multisource assessment of children's social competence. Educational and Psychological Measurement, 66(5), 874–895. https://doi.org/10.1177/0013164405285546

Lerkkanen, M.-K. & Pakarinen, E. (2016-2022). Teacher and Student Stress and Interaction in Classroom (TESSI). https://doi.org/10.17011/jyx/dataset/77741

Muthén, L. K., & Muthén, B. O. (1998-2017). Mplus users guide and Mplus version 8. http://www.statmodel.com/index.shtml

Pakarinen, E., Lerkkanen, M.-K., & von Suchodoletz, A. (2020). Teacher emotional support in relation to social competence in preschool classrooms. International Journal of Research & Method in Education, 43(4), 444–460. https://doi.org/10.1080/1743727X.2020.1791815

Penttinen, V., Pakarinen, E., von Suchodoletz, A., & Lerkkanen, M.-K. (2020). Relations between kindergarten teachers' occupational well-being and the quality of teacher-child interactions. Early Education and Development, 31(7), 994–1010. https://doi.org/10.1080/10409289.2020.1785265

Pianta, R. C., La Paro, K. M., & Hamre, B. K. (2008). Classroom Assessment Scoring System: Manual K-3. Paul H Brookes Publishing.

Schaufeli, W., Salanova, M., González-romá, V., & Bakker, A. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. Journal of Happiness Studies, 3(1), 71–92. https://doi.org/1015630930326

Reciprocal Associations Among Teaching Quality, Teachers' Work Engagement, and Children's Social Competence

Siekkinen, M., Pakarinen, E., Lerkkanen, M.-K., Poikkeus, A.-M., Salminen, J., Poskiparta, E., & Nurmi, J. (2013). Social competence among 6-year-old children and classroom instructional support and teacher stress. Early Education & Development, 24(6), 877–897.

https://doi.org/10.1080/10409289.2013.74

Reciprocal Associations Among Teaching Quality, Teachers' Work Engagement, and Children's Social

Competence