

## PREDICTORS OF STUDENT'S SENSE OF BELONGING AT SCHOOL WITHIN DIFFERENT GROUPS OF STUDENTS IN SLOVENIA

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### Abstract

Sense of belonging at school refers to a student's subjective perception of the school environment. It has been confirmed in various studies as an important predictor of higher academic achievement and student well-being. The results from various international comparative studies in Slovenia (e.g. TIMSS, PIRLS, and PISA) show that students report a lower sense of belonging at school compared to the international averages, and as such need further investigation. The main aim of this paper is to gain a deeper understanding of the sense of belonging at school among Slovenian students by testing the explanatory model of students' sense of belonging at school that includes significant predictors already identified in other national and international studies and determined based on a broad literature review. In examining the effects of predictors of students' sense of belonging at school, the paper also examines the differences in the effects within different groups of students: according to students' gender, socioeconomic status, and immigration status. For the data analysis, we used the data from the PISA 2018 survey, which in Slovenia includes a representative sample of 6.24115-year-old students. From the 2018 questionnaire, we used separate scales addressing students' perceived disciplinary climate in the classroom, teacher's socio-emotional support, teacher's individual approach to teaching, discriminatory behavior of teachers, perceived competition amongst students, bullying, parental support, and frequency of students' positive emotions. All scales showed good internal consistency in the Slovenian sample. We used the linear regression procedure to analyse the size effects of different predictors when explaining students' sense of belonging at school within different groups of students. The multicollinearity between the variables was also checked before undertaking regression. Data were analysed using the statistical program IEA IDB Analyzer (Version 5.0.20), which, due to two-stage sampling in the PISA study, allows the use of individual students and sample weights to properly assess the standard parameter errors in the population using the Bootstrap method. The results showed that two predictors of students' sense of belonging at school had been confirmed as the most significant in the Slovenian context, regardless of students' gender, socio-economic status, and immigrant status: perceptions of students' bullying in schools and frequency of students' positive emotions. The results thus point to the importance of preventing bullying in schools and enhancing the socio-emotional well-being of students to promote a sense of belonging at school among different groups of students.

**Keywords:** *Sense of belonging at school, bullying, gender, socioeconomic status, immigrant status.*

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### 1. Introduction

Sense of belonging at school is defined as the student's subjective perception of being accepted, respected, included, and supported in the school environment (Goodenow, 1993). It has been confirmed in various studies (e.g. Allen et al., 2018; Pittman and Richmond, 2007; Ryan and Deci, 2000) as an important predictor of higher academic achievement and overall student well-being. Several studies, including some meta-studies and systematic reviews (e.g. Korpershoek et al., 2019), have examined the sense of belonging at school as an independent variable that predicts students' academic achievement and well-being. However, less attention has been paid to predictors of a sense of belonging at school in the scientific literature (Mok et al., 2016). Certain authors (e.g. D'Hondt, 2015; Hernández et al., 2017; Huyge et al., 2015; Loukas et al., 2016) point out that, due to the different and highly fragmented approaches to research on the sense of belonging at school, there are inconsistent findings on which predictors are most important for the development of students' sense of belonging at school. Studies (e.g. Chiu et al., 2016; Ham et al., 2017; Ni & Han, 2022; Sampasa-Kanyinga et al., 2019) also suggest that it is important to consider different groups of students when examining their sense of belonging at

school, as there are important differences within different groups of students. Here, differences by gender, immigration background, and socio-economic status of students are often highlighted.

## 2. Objectives

The results from various international comparative studies in Slovenia (e.g. TIMSS, PIRLS, and PISA) show that students report a lower sense of belonging at school compared to the international averages, and as such need further investigation. The main aim of this paper is to gain a deeper understanding of the sense of belonging at school among Slovenian students by testing the explanatory model of students' sense of belonging at school that includes significant predictors already identified in other national and international studies (e.g. Faircloth & Hamm, 2005; Reschly et al., 2008; Klem & Connell, 2004) and determined based on a broad literature review. Since there are significant differences in various aspects of educational outcomes within different groups of students in Slovenia (e.g. Šterman Ivančič & Štrefel, 2023), in examining the effects of predictors of students' sense of belonging at school, the paper also examines the differences in the effects within different groups of students according to students' gender, socioeconomic status, and immigration background.

## 3. Method

For the data analysis, we used the data from the PISA 2018 survey, which in Slovenia includes a representative sample of 6.24115-year-old students. From the 2018 questionnaire, we used separate scales addressing students' perceived disciplinary climate in the classroom, teacher's socio-emotional support, teacher's individual approach to teaching, discriminatory behavior of teachers, perceived competition amongst students, bullying, parental support, and frequency of students' positive emotions. All scales showed good internal consistency in the Slovenian sample. We used the linear regression procedure to analyse the size effects of different predictors when explaining students' sense of belonging at school within different groups of students. The multicollinearity between the variables was also checked before undertaking regression. Data were analysed using the statistical program IEA IDB Analyzer (Version 5.0.20), which, due to two-stage sampling in the PISA study, allows the use of individual students and sample weights to properly assess the standard parameter errors in the population using the Bootstrap method.

## 4. Results

Various predictors of a sense of belonging at school, which have already been confirmed as significant in other research, have been included in explanatory models. The results show that two in particular have been confirmed as the most significant in the Slovenian context: perceptions of students' bullying in schools and frequency of students' positive emotions. Also, these two predictors were confirmed as the most significant within different groups of students, with slightly higher explanatory power for girls, students with immigrant status, and students reporting a lower socio-economic status.

## 5. Discussion and conclusions

The findings of this study can be linked to previous research showing that low or no peer violence (e.g. D'hondt et al., 2015; Hatchel et al., 2019; Loukas et al., 2016) and higher frequency of students' positive emotions (e.g. Frydenberg et al., 2009; Tian et al., 2016) are significantly associated with a greater sense of belonging at school. At the same time, the study, using internationally comparable data, suggests the importance of these predictors for some at-risk groups of students (e.g. gender, immigrant status, low socio-economic status). The results thus point to the importance of preventing bullying in schools and enhancing the socio-emotional skills and well-being of students and teachers to promote a sense of belonging at school also among different groups of students.

The mentioned could be achieved through systematic planning and implementation of interventions e.g. peer violence prevention programmes, and programmes to develop the socio-emotional skills and well-being of students and teachers in Slovenia. This way the enhancement of a sense of belonging at school at the level of a whole-school approach seems to be of great importance, and with such interventions, some of the most vulnerable groups of students could be reached (Allen et al., 2018). The conclusions above are also relevant in light of previous research on the sense of belonging at school, which has rarely examined predictors of sense of belonging at school separately for specific groups of students (e.g. He & Fischer, 2020).

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