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School Belonging: The Importance of Congruence with Classmates' Characteristics and
Students' Individual Ethnic and Socioeconomic Background

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Abstract

In the social environment of the classroom, classmates' characteristics can impact students' school belonging. This study examined the effects of congruence with classmates' minority/majority membership, origin country, immigrant generational status, and socioeconomic (SES) on students' belonging to peers and school. In addition, the moderating effects of students' own ethnic and socioeconomic backgrounds were investigated. Children from different ethnic backgrounds (N = 204) at primary schools in the Netherlands participated in this study. School belonging was measured with the school- and peer subscales of a Dutch version of the PSSM. Regression analyses showed that minority/majority, country-of-origin, immigrant, and SES congruence are all important factors in determining students' school belonging. However, the effects of these factors vary depending on the student's own ethnic and SES background. The presence of same-ethnic peers promoted school belonging for students with a migration background, whereas it reduced feelings of belonging for ethnic Dutch students. In addition, both immigrant and SES congruence negatively affected students' sense of belonging when students' individual SES was taken into account. Therefore, it is crucial to consider individual student characteristics when examining their sense of belonging. The present study emphasizes the importance of recognizing the diversity within the minority and majority groups and creating diverse school contexts. These findings provide valuable directions for future research and practical implications aimed at fostering students' sense of belonging at school.

Keywords: school belonging, classmates' characteristics, congruence, ethnic background, socioeconomic status

Belonging is a fundamental human need, characteristic to all cultures and individuals. In the educational context, it encompasses the social dimension of students' well-being at school, which has become increasingly important in recent years (OECD, 2017). Studies demonstrated that school belonging is associated with students' socio-emotional well-being (Castro-Kemp et al., 2020; Georgiades et al., 2013; Korpershoek et al., 2020; OECD, 2017; Šeboková et al., 2018), school performance (Abdollahi & Noltemeyer, 2018; Akar Vural et al., 2020; Faircloth & Hamm, 2005; Hughes et al., 2015; Korpershoek et al., 2020; OECD, 2017), and minority students' national belonging (i.e., experiencing emotional involvement and a connection to the state they live in; Ashmore et al., 2004; van Vemde et al., 2021). The school environment plays a critical role in shaping students' school belonging, with peer and teacher relationships being key determinants (Allen & Kern, 2017; Goodenow & Grady, 1993; Gowing, 2019; Hamm & Faircloth, 2005). In this research, we will focus on the classroom social environment and its relationship with students' school belonging.

According to the person-context fit perspective, students' sense of belonging is influenced by the similarities students share with classmates (Block & Grund, 2014; El Zaatari & Maalouf, 2022; Lerner et al., 1985; McPherson et al., 2001; Titzmann, 2014). In the Netherlands, 27.8% of students have a migration background (i.e., at least one parent was born in a foreign country; CBS, 2022) resulting in many ethnically diverse classrooms throughout the country. With increasing diversity, there is a risk that students will feel less connected to their classmates. To promote students' social well-being at school, it is important to understand how the classroom environment affects their sense of belonging. Studies that operationalize classroom composition based on the percentage of students with minority/majority membership yielded inconsistent results as to whether having similar classmates matters for students' school belonging (Hornstra et al., 2015; Mok et al., 2016; Rjosk et al., 2017; Rodkin et al., 2007; Van Vemde et al., 2023). In this study, we assume that

this binary division of minority/majority membership does not reflect the more nuanced differences that exist within the minority group. As students who share the same country of origin or immigrant generational status have more similarities, it seems worthwhile to investigate classmates' specific ethnic backgrounds and immigrant generational status when examining students' school belonging. In addition, besides students' ethnic backgrounds, the role of students' own but also classmates' socioeconomic backgrounds are given little to no attention in previous research on school belonging (Georgiades et al., 2013; Hornstra et al., 2015; Mok et al., 2016; Rjosk et al., 2017; Rodkin et al., 2007; Thijs et al., 2019; Van Vemde et al., 2023). Therefore, this study will analyze the effects of classmates' characteristics not only in terms of minority/majority membership, but also by investigating the role of congruence in students' country of origin, immigrant status, and family SES. Furthermore, the moderating effects of students' own ethnic backgrounds and family SES will be examined. Thereby, this study contributes to research and practice by providing a more fine-grained understanding of students' school belonging and offering suggestions on how learning environments can be structured to foster it.

School belonging as a multidimensional construct

Having a sense of belonging at school refers to the feeling of being an integral part of a group, fitting in, being accepted and respected, and feeling supported (Goodenow & Grady, 1993; Hagerty et al., 1992; Macmillan & Chavis, 1986). According to Allen et al. (2021a) the dynamic feeling of school belonging consists of four interrelated components: competencies for belonging, opportunities to belong, motivations to belong, and perceptions of belonging. "These four components reinforce and influence one another over time, as a person moves through different social, environmental, and temporal contexts and experiences" (Allen et al., 2021a, p. 92). These four components explain why, for example, someone who is socially competent and motivated to fit in but has regularly experienced discrimination still questions

their belonging when opportunities to belong present themselves. In addition, in their study, Gray et al. (2022) even discovered that secondary school students' feelings of belonging can change throughout a school day, depending on the opportunities to belong provided by different teachers.

According to research on school belonging and connectedness, belonging should not be viewed as a single construct. Instead, it should be recognized as having multiple dimensions. For example, Allen & Kern (2017) identified three common operational dimensions of belonging across multiple studies: 1) school-based relationships (i.e., with peers); 2) student-teacher relationships; and 3) students' general feelings about school. It is thus better to distinguish different dimensions of school belonging based on different targets in the school context, such as peers, teachers, and school (Abubakar et al., 2016; Allen & Kern, 2017; Lohmeier & Lee, 2011). Previous research that investigated the factor structure of various school belonging scales confirmed this three-dimensional structure of belonging (Abubakar et al., 2016; Lohmeier & Lee, 2011; Sass et al., 2011; Ye & Wallace, 2014). Therefore, in the present study, we will focus on two aspects of belonging: students' general belonging to school and belonging to peers. General belonging to school refers to students' identification with and relatedness to the school, which is affected by school policies, but also school climate and student population (Allen & Kern, 2017; El Zaatari & Maalouf, 2022; Greenwood & Kelly, 2019). For example, studies show that diversity policies (Celeste et al., 2019), positive interethnic climates (Vang & Nishina, 2022), and an ethnically diverse student population (Graham et al., 2022) promote school belonging. Belonging to peers encompasses a student's relationships with classmates, which are an important source for students' overall sense of belonging at school (Allen & Kern, 2017; El Zaatari & Maalouf, 2022; Goodenow & Grady, 1993; Gowing, 2019; Hamm & Faircloth, 2005). Our research will not examine the third aspect of belonging, which involves students' relationships with teachers and other

adults at school (Allen & Kern, 2017), as they will most likely not be influenced by the characteristics of classmates.

School belonging and classroom composition

The classroom context creates many opportunities for children to interact and connect with peers (Allen et al., 2021a). According to a person-context fit perspective, an individual's psychosocial adjustment is determined by the individual's interaction with the social, cultural, and physical characteristics of the environment (Lerner et al., 1985). In the school context, the fit between a student and the classroom's social environment affects their sense of belonging to school (El Zaatari & Maalouf, 2022). For years, studies continue to demonstrate that people prefer to connect and interact with people who are more similar to them (i.e., homophily; Block & Grund, 2014; McPherson et al., 2001; Titzmann, 2014). A good fit, promoting strong feelings of belonging, is thus largely based on the similarities students share with their classmates. This highlights the importance of the composition of the classroom, in terms of ethnic- and socioeconomic backgrounds.

Previous research has shown that students that belong to an ethnic minority group often experience lower feelings of belonging in general (Biggart et al., 2013; OECD, 2017; Patte et al., 2021; Rjosk et al., 2017). The composition of the classroom could be an explanation, if, for example, the proportion of ethnic minority students is small. However, previous research seems inconclusive about the effects of the composition of the classroom when measured according to the percentage of students with or without a migration background. Some studies found that majority and minority students have a stronger sense of classroom belonging in classrooms with a higher percentage of other minority/majority students (Hornstra et al., 2015; Rjosk et al., 2017). Contrarily, studies found that majority students' sense of school belonging (Mok et al., 2016) and minority students' sense of peer belonging was not related to the ethnic composition of the classroom (Rjosk et al., 2017). In

addition, where one study indicates that a higher share of ethnic minority students promotes social integration for both groups (Rodkin et al., 2007), other studies found negative effects for minority and majority students' belonging to their classmates (Fedeli & Triventi, 2023; Rjosk et al., 2017).

School belonging and classmates' ethnic backgrounds

Many of the previously mentioned studies on the effects of classroom composition on school belonging categorized students based on the binary division of ethnic minority and majority students. However, this does not do justice to the heterogeneity of the minority group. That is, differences exist between students within the minority group, for example, based on country of origin, immigrant generational status, and family socioeconomic status (SES), which are important to consider when examining the role of classroom composition on students' sense of belonging within the social environment of the school.

If the only similarity between students is their minority status, with no further similarities, that characteristic alone may not contribute much to their belonging. However, students who share the same country of origin share a language and culture and often have similar norms and values. Previous research on homophily (i.e., the tendency for people to connect with people who are more similar to them; McPherson et al., 2001) indeed demonstrates that ethnicity is a very strong bonding factor (McPherson et al., 2001; Smith, 2018; Titzmann, 2014). The many similarities that students from the same ethnicity experience thus promote a good person-context fit within the classroom context, stimulating strong feelings of belonging. Studies indeed suggest that a high share of peers from the same origin country in the classroom and/or at school promotes feelings of belonging and classroom identification (Georgiades et al., 2013; Graham et al., 2022; Mok et al., 2016; Thijs et al., 2019).

In addition, Georgiades et al. (2013, p. 1486) use an even more nuanced measure of students' ethnic backgrounds by including their immigrant generational status. They define congruence as "the degree of "person-context fit" between school racial/ethnic and immigrant composition and an individual students' own race/ethnicity and immigrant generational status." Although most minority members share the experience of being raised in an immigrant family, differences exist between members due to their immigrant status. Foremost, migrant children (i.e., first generation) share the experience of migration as well as overcoming linguistic, cultural, and educational challenges that are different for second and third generations (Eyerman & Turner, 1998; Niño et al., 2017). In addition, previous research argues that most migrant children have a stronger adherence to traditional cultural beliefs than later-generation children (Bui, 2009; Kao, 2004; Phinney et al., 2000; Piquero et al., 2016), which could influence their preference for same-generation peers. Furthermore, research shows that the parenting styles of immigrant parents differ across generations (Bezioglu-Goktolga & Yagmur, 2022; Citlak et al., 2008; Driscoll et al., 2008), suggesting that children from different migration generations are also being raised with different norms and values. Consequently, as argued by the sociological generational theory, children with the same immigrant status thus share a unique generational identity, that is based on shared experiences, cultural adherence, and upbringing (Eyerman & Turner, 1998; Niño et al., 2017). Therefore, sharing the immigrant generational status could cause classmates to experience more similarities, which might promote a good person-context fit (i.e., congruence) and accordingly also feelings of belonging.

School belonging and classmates' socioeconomic backgrounds

The socioeconomic status (SES, i.e., material family wealth; Boyce et al., 2006; Corell et al., 2021; Torsheim et al., 2016) of students' families also differs among minority as well as majority group students. For both groups, students' SES in relation to the SES of their peers

can potentially influence their perceived connectedness and fit. According to the family investment model (Conger & Donnellan, 2007), higher SES families have greater access to financial, social, and human capital (i.e., education) which they can invest in the development of their children. This difference in resources due to a difference in SES can become apparent and noticeable to children through differences in standards of living, such as housing, clothing, leisure activities, and holiday trips abroad (Bradley & Corwyn, 2002; Conger & Donnellan, 2007). Indeed, previous research shows that children are already aware of family wealth indicators, such as material possessions and lifestyle characteristics, at the age of 8 (Mistry et al., 2015; Shutts et al., 2016; Sigelman, 2012). Consequently, children who notice a discrepancy in the living standards of their family and that of their classmates may perceive a weaker connection to their classmates, and, thus, a worse fit. Therefore, the (dis)similarity of family SES of classmates can be an important determinant of school belonging.

Aligning with van Vietze et al. (2023) this study is stepping away from the binary variable ‘with or without migration background’ in order to yield more detailed and meaningful results. We will adopt a more fine-grained approach to assess similarity between classmates (i.e., minority/majority membership, country of origin, immigrant generational status, family SES) that does justice to the heterogeneity of both the minority and majority group. Accordingly, we aim to obtain a more detailed picture of the social classroom environment and its relationship with school belonging.

School belonging, congruence, and students’ ethnic backgrounds

Due to past or current experiences of discrimination and stereotype, students with a migration background are more prone to feel less belonging at school (K. A. Allen et al., 2021; Carter, 2007; Heikamp et al., 2020; M. Hussain & Jones, 2021; Mello et al., 2012; Montoro et al., 2021; Russell & Mantilla-Blanco, 2022). Therefore, it may be even more important for minority students to attend a classroom with peers who share their origin

country, language, culture, and socioeconomic background. The recognition and acknowledgment of a shared ethnic identity and socioeconomic status could buffer against negative perceptions and experiences, promoting stronger feelings of school belonging (Allen et al., 2021a). Majority group students typically belong to the dominant group in society and in the classroom, so while having similar classmates can promote feelings of belonging for them as well, it may not be as crucial as it is for minority students.

Previous research that examined the differential impact of co-ethnic peers on school belonging for minority and majority students found either no differences between the groups (Thijs et al., 2019) or that minority students appeared to benefit more from the presence of co-ethnic peers (Hornstra et al., 2015; Mok et al., 2016). We aim to contribute to the literature by examining if and how the importance of same-ethnic and same-SES classmates for school belonging differs for students with and without a migration background.

School belonging, congruence, and students' socioeconomic backgrounds

Students' SES has a direct impact on students' school belonging (Ahmadi et al., 2020; Allen et al., 2022; OECD, 2019). While previous studies on the role of ethnic congruence included students' SES as a covariate (Georgiades et al., 2013; Hornstra et al., 2015; Mok et al., 2016; Rjosk et al., 2017; Thijs et al., 2019; van Vemde et al., 2023), SES has not been their main focus. However, students' family SES may interact with the effects of both SES and ethnic congruence. For children from low SES families having classmates with similar socioeconomic backgrounds may be more important as they may feel inferior, ashamed, or stigmatized when attending classrooms with high-SES classmates (Inglis et al., 2022; Simons et al., 2018). For the same reason, low-SES students could have a stronger preference for same-ethnic peers. Carter (2007) for example, found that interacting with same-ethnic peers can be a protective factor against emotional and psychological stress due to discrimination experiences. Likewise, the presence of same-ethnic peers might buffer against any inferior

feelings that low SES students could experience, promoting school belonging. It is thus important to consider SES as an impacting factor and potential moderating variable.

To the best of our knowledge, this study is unique by 1) studying the role of country-of-origin, immigrant, and SES congruence in addition to minority/majority congruence to investigate the degree of similarity between classmates that is important for students' school belonging and 2) examining the moderating role of SES. This approach could provide useful insights regarding the person-context fit perspective in the school's social environment.

Present study

The present study aims to obtain a more fine-grained understanding of how the classroom's social environment affects students' belonging to peers and school. To achieve this, we will examine classmates' characteristics not only in terms of minority/majority membership but also country of origin, immigrant generational status, and family SES. In addition, we will investigate how students' individual ethnic and socioeconomic backgrounds affect the impact of classmates' characteristics on students' school belonging. This research has the following research questions:

1. To what extent do the characteristics of classmates affect students' sense of belonging to peers and school?
 - a. To what extent does minority/majority congruence affect students' sense of belonging?
 - b. To what extent does the share of co-ethnic classmates based on country of origin (i.e., country-of-origin congruence) affect students' sense of belonging?
 - c. To what extent does the share of classmates with a similar immigrant generational status (i.e., immigrant congruence) affect students' sense of belonging?

- d. To what extent does the difference in family SES between a student and their classmates (i.e., SES incongruence) affect students' sense of belonging? And to what extent does the direction of the difference matter (negative or positive; SES incongruence dummy)?
 - e. To what extent do the effects of minority/majority, country-of-origin, immigrant congruence, and SES incongruence on students' school belonging differ for different ethnic groups (i.e., Dutch, within Europe, outside of Europe, multicultural)?
2. To what extent does family SES moderate the effects of the (in)congruence variables on students' sense of belonging?
 - a. To what extent does family SES moderate the relationship between SES incongruence and students' sense of belonging?
 - b. To what extent does family SES moderate the relationship between minority/majority, country-of-origin, and immigrant congruence on students' sense of belonging?

Regarding the first research question, we hypothesize that minority/majority congruence will positively affect students' sense of belonging (Hypothesis 1a) as previous research mostly found a positive effect for minority and majority students (Hornstra et al., 2015; Rjosk et al., 2017). We also expect that a higher level of both country-of-origin congruence (Hypothesis 1b) and immigrant congruence (Hypothesis 1c) and a lower score on SES incongruence (Hypothesis 1d) will lead to greater school belonging as the experienced similarity between classmates will increase and ensure a better student-classroom fit (Conger & Donnellan, 2007; El Zaatari & Maalouf, 2022; Eyerman & Turner, 1998; Lerner et al., 1985; Niño et al., 2017; Smith, 2018; Titzmann, 2014). Furthermore, we expect that the

effects of the (in)congruence scores will be stronger for minority students (Hypothesis 1e), because they are more prone to feel less belonging due to their experiences with discrimination (Allen et al., 2021a; Carter, 2007; Heikamp et al., 2020; M. Hussain & Jones, 2021; Mello et al., 2012; Montoro et al., 2021; Russell & Mantilla-Blanco, 2022). The presence of same-ethnic and same-SES peers might be more important to them (Allen et al., 2021a; Carter, 2007; M. Hussain & Jones, 2021).

Regarding the second research question, we expect that for low-SES students, who may experience feelings of inferiority or stigmatization when surrounded by high-SES classmates (Inglis et al., 2022; Simons et al., 2018), same-SES peers are more important than for high SES students (Hypothesis 2a). Similarly, we hypothesize that for low-SES students same-ethnic peers are more important (Hypothesis 2b), as they might buffer against the inferior feelings that low-SES students may experience (Carter, 2007), promoting school belonging.

Methods

This study was part of a larger study that examines teachers' interpersonal behavior and students' sense of belonging in multicultural classrooms. The study has been approved by the Ethics Committee of the Faculty of Social and Behavioral Sciences of Utrecht University. Data is stored on a secured server and is only accessible to the researcher of the present study and the principal investigator of the larger study.

Sample

The sample consisted of 204 students from 11 classes at 16 different primary schools in metropolitan areas in the Netherlands. The students differed in gender (50% boy, 50% girl), age ($M = 10$, $SD = 1.1$, $R = 8-13$), and family SES (i.e., FASIndex; $M = 8.5$, $SD = 2.0$, $R = 2-12$). In addition, the sample was very diverse in terms of origin countries. In total, 53 different

countries were selected by the students; with Dutch origin, Moroccan, Turkish, Antilleans, and Syrians being the biggest groups. Based on these origin countries, students were divided into four ethnic origin groups: 30.9% Dutch origin, 3.4% origin country within Europe, 37.7% origin country outside of Europe, and 27% mixed multicultural (see Measures for an explanation). Furthermore, based on their own and their parent's country of birth, the students were divided into three immigrant generational statuses: 36.8% no migration history, 16.2% migrant students (i.e., first generation), and 42.6% children of migrants (i.e., second generation).

For the larger study, teachers were recruited through purposive sampling, this means that a group of teachers was selected that would be representative of a specific population. Teachers had to meet two criteria to be included in the larger study. Firstly, as the larger study focused on multicultural classrooms, teachers had to be teaching in a classroom where the majority of students has a migration background. Therefore, schools were contacted that are characterized by having a high percentage of students that belong to an ethnic minority group. Second, because the larger study focused on interpersonal behavior of 'successful teachers', school leaders were asked to indicate which teachers they consider to be successful with regard to supporting the achievement potential of all students and foster positive relationships with their students. Those teachers were asked to participate with the students in their class. In total, ten classes from seven schools were collected in that way. In addition, in order to increase the diversity and representativeness of the sample for the purpose of the present study, the researcher of the present study recruited six more classes at four different schools that were not necessarily multicultural and without asking the school leader to select the teacher.

Procedure

After a teacher agreed to participate with their class, written and active consent was collected from the parents (Esbensen et al., 1996), asking permission for participation and collection of personal information such as the family's ethnic group and SES. The consent form was created in Qualtrics, an online survey maker, and was distributed to teachers through email. Teachers, in turn, distributed the consent form to parents. The response rates of parents across classes ranged from 26.1% to 100%, with a mean of 63.9%. Teachers were also informed about the study and asked to fill in a small form to collect their years of work experience and ethnicity. Student data were collected by means of a computer-administered questionnaire during class time. On the day of data collection, a researcher was present in class to guide students through the items and answer any questions or unclarities.

The questionnaire, containing questions asking students for their personal information and the sense of belonging items, was created in Qualtrics. In Qualtrics, respondents can be obliged to fill in an answer to all items on a page before proceeding to the next page or saving the response. Therefore, missing data regarding participants' personal information was due to parents not consenting to the collection of one or more personal characteristics (i.e., family SES, country of origin). In addition, missing data regarding questionnaire items was due to the participant not finishing the questionnaire after the collection of the personal information.

Measures

Sense of belonging

The sense of belonging of students was measured with the Psychological Sense of School Membership scale (PSSM; Goodenow, 1993), adapted for the target population (see Appendix A). Examples of items are "I feel like a part of my school" and "I am treated with as much respect as other students in my school". Every item is rated on a five-point scale (1 = *not at all true*; 5 = *completely true*). The principal investigator of the larger study translated

the questionnaire into Dutch. Afterward, a pilot study with students from the target group showed that there were some difficult words included in the items. Therefore, the principal investigator added a brief explanation of a few words (being interested = being curious and asking questions”).

Since the construct of school belonging is multi-dimensional (Abubakar et al., 2016; Allen & Kern, 2017; Lohmeier & Lee, 2011) we examined the factor structure of the PSSM. Many studies identified two (Arslan et al., 2022; Arslan & Duru, 2017; Demanet & Van Houtte, 2012; S. F. Hussain et al., 2018), three (Cowden et al., 2018; Togari et al., 2011; Ye & Wallace, 2014; You et al., 2011), four (St-Amand et al., 2020) or five (Abubakar et al., 2016) factor structures that have a better model fit than a unidimensional model. These studies are inconclusive about the exact structure of the PSSM, however, most studies (St-Amand et al., 2020; Togari et al., 2011; Ye & Wallace, 2014; You et al., 2011) label the factors according to different agents (i.e., students’ belonging with peers, their teachers, and the school in general). This is in line with Abubakar et al. (2016, p. 386) who argue that the items of the PSSM should be separated based on different “targets of belongingness” in the school context. Therefore, we performed a CFA testing a three-factor structure that distinguishes between items focused on relationships with peers, attachment to and acceptance at school, and relationships with/support of teachers/other adults at school. As many studies also found a two-factor structure, grouping the items focused on school belonging and peer relationships into one factor (see Demanet & Van Houtte, 2012; Hussain et al., 2018), we also tested a two-factor structure. Examining the internal structure of the questionnaire promotes validity (Knekta et al., 2019). The three-factor model demonstrated good fit to the data: $\chi^2(132) = 205.48, p < .000, CFI = .95, TLI = .94, RMSEA = .05, \text{ and SRMR} = .05$. The two-factor model demonstrated a slightly worse fit to the data: $\chi^2(134) = 230.43, p < .000, CFI = .93, TLI = .92, RMSEA = .06, \text{ and SRMR} = .05$. A chi-square difference test was performed using

the Satorra-Bentler scaled chi-square (Satorra & Bentler, 2010), which demonstrated that a model based on a three-factor structure fits the data better than a two-factor structure ($\chi^2 = 3.93$, TRd = 9.55, $df = 2$, $p = .0085$). In addition, a one-factor model demonstrated poor fit, $\chi^2(135) = 284.21$, $p < .000$, CFI = .89, TLI = .88, RMSEA = .07, and SRMR = .05. Another chi-square difference test showed that a model based on a three-factor structure fits the data better than a one-factor structure ($\chi^2 = 1.55$, TRd = 58.36, $df = 3$, $p < .00$). These results suggest that the structure of the PSSM is best operationalized as a three-factor structure reflecting different targets in the school context. Item 3 had a very weak factor loading ($B < .40$) and was therefore excluded from analyses (Knekta et al., 2019; Matsunaga, 2010). Because we expect that classmates' background will not affect students' belonging to teachers, in the present study, school belonging will be measured according to the two subscales: peers and school (hereafter: SB peers and SB school). The reliability of the subscales was analyzed using the Omega dependency measure (McDonald, 1999), which is argued to be a more sensible and unbiased index of internal consistency (Dunn et al., 2014; Hayes & Coutts, 2020; McNeish et al., 2017). The reliability for SB peers $\omega = .79$, 95% CI [.67, .85] and SB school $\omega = .84$, 95% CI [.80, .87] was acceptable to good (George & Mallery, 2003).

Family socio-economic status

Family socioeconomic status was measured with the revised Family Affluence Scale (FAS; Torsheim et al., 2016) filled in by students. The scale consists of six items and is a valid measure of family wealth (see Appendix A; Hobza et al., 2017). The items ask about the number of computers, number of cars, number of bathrooms, whether students have their own bedroom, number of family holidays, and whether there is a dishwasher at home. Each item resulted in a score between 0 and 3, ultimately creating a total FASIndex score that ranges from 0 to 13. Previous research showed good external validity and stability of the scale

(Boyce et al., 2006; Corell et al., 2021; Hobza et al., 2017; Torsheim et al., 2016) The variable was treated as a continuous variable (Donner & Eliasziw, 1994; Hobza et al., 2017).

Students' and classmates' characteristics

Students' ethnic group and immigrant generational status were based on self-report of their family's background (see Van Vemde et al., 2023). Students were asked to select the group they and their family belonged to (see Appendix A). They had the option to select one or multiple groups from a list or fill in a group that was not included in the list. Students could choose as many groups as they identified with (Veerman & Platt, 2021). In addition, students were asked if they and their parents were born inside or outside the Netherlands.

One variable was created that reflected the *ethnic origin group* a student belongs to. These groups were defined according to new definitions of the Central Bureau of Statistics (CBS; Statistics Netherlands, 2022) in the Netherlands into four groups: 1) the Netherlands as country of origin (students self-identified as Dutch and two parents born in the Netherlands); 2) country of origin within Europe (excluding the Netherlands, Turkey, Armenia and Georgia, including Russia); 3) country of origin outside of Europe; 4) multicultural (self-identified Dutch in combination with one or more other ethnic groups selected and one parent born outside of the Netherlands). In addition, students' *immigrant generational status* was determined, also based on definitions of the CBS: 1) Non-migrant children (born in the Netherlands and both parents born in the Netherlands); 2) migrant children (born abroad but parents either born abroad or born in the Netherlands); 3) child of migrants (born in the Netherlands and at least one parent born abroad; Statistics Netherlands, 2022).

Next, per classroom, it was explored how many students belonged to the ethnic minority or majority group in the classroom. The definition regarding ethnic minority according to the United Nations is: "An ethnic, religious or linguistic minority is any group of persons which constitutes less than half of the population in the entire territory of a State

whose members share common characteristics of culture, religion or language, or a combination of any of these.” Thus, every ethnic group other than the dominant one in the Netherlands is considered an ethnic minority. Consistent with the prior definition, in the present study, every student with at least one parent born in a foreign country was categorized as belonging to the ethnic minority group. Although a student from Portugal might be less visibly a minority than a student from Ghana, in a classroom context, such a student might feel a minority or less belonging due to a different mother tongue language or different cultural norms, values, and customs than their classmates. Thus, only students for whom both parents were born in the Netherlands belonged to the ethnic majority group (see Vervoort et al., 2010). For every student, a *minority/majority congruence* score was calculated that showed the share of classmates that belonged to the same group (minority or majority). In addition, a *country-of-origin congruence* score was calculated for every student, indicating the percentage of classmates in the student’s classroom that shared the same origin country. For example, if there were 6 students in a classroom that belong to the Turkish ethnic group of in total 15 students, the country-of-origin congruence score for one Turkish-origin student was $(5/15)*100 = 33.3\%$. Furthermore, an *immigrant congruence* score was calculated for every student reflecting the share of classmates in the classroom that shared the same immigrant generational status.

Lastly, to obtain an *SES incongruence* score, for every participant, the absolute difference was calculated between the mean FASIndex score (i.e., family SES score) of the class, without the score of the individual participant included, and the FASIndex score of the participant. This variable thus shows how much a participant’s SES deviates from the average SES of the class, a high score reflecting a high discrepancy and, thus, high incongruence. In addition, a binary variable was created to reflect the direction of the difference (0=negative, 1=positive).

Data Analyses

To answer the research questions, structural equation modeling was conducted in the statistical program MPlus (Muthén & Muthén, 1998). The two PSSM subscales (i.e., SB peers and SB school) were included as outcome variables and minority/majority congruence, country of origin congruence, immigrant congruence, and SES incongruence as predictor variables. Before analysis, the missing values of all predictor and outcome variables were examined in SPSS (Version 28). For age and gender, there was no missing data. However, for ethnic origin group, immigrant generational status, and family SES respectively 1%, 4.4%, and 4.5% of data was missing. Similarly, for minority/majority, ethnic, and SES incongruence respectively 1%, 1%, and 4.5% of data was missing. For immigrant congruence, 5.4% was missing and for the binary variable SES dummy 6.4% was missing. The Little's Missing Completely at Random Test demonstrated that the values were missing completely at random, $\chi^2 = 41.40$, $df = 32$, $p = .123$. In MPlus, missing values are handled with the full information maximum likelihood method, which means that all data that is available is used to estimate the model (Muthén & Muthén, 1998). In addition, the assumptions of normality, heteroscedasticity, and multicollinearity were investigated in SPSS (Barbeau et al., 2019; Kline, 2015; Lumley et al., 2002). For all predictor variables, multicollinearity was low. In addition, the assumption of normality as well as the assumption of heteroscedasticity was violated. Therefore, the MLR estimator was used in MPlus which is robust to most violations (Muthén & Muthén, 1998).

To account for the nested structure of the data, students within classes, TYPE=COMPLEX was included in the MPlus syntax that corrects the standard errors (McNeish et al., 2017; Muthén & Muthén, 1998). As the focus of the present study is the classroom context, we used class rather than school as cluster variable. The intra-class correlations for the class variable were 0.32 for SB school and 0.11 for SB peers. In addition,

the MLR estimator is also robust to non-independence of observations (Muthén & Muthén, 1998). This method was chosen as the sample size of the present study is too small to conduct multilevel analyses and because it can adequately deal with hierarchical data. Previous research suggested that, with structural equation modeling, a sample size of 200 is sufficient (Kline, 2015).

Multiple multivariate regression models were tested (see Table 1), which implies that multiple outcome variables are put in the model simultaneously. In this study, the outcome variables were SB peers and SB school. Before analysis, for both categorical variables ethnic origin group and immigrant generational status, two dummy variables were created. Because the ethnic origin group ‘within Europe’ was too small ($n=7$), that group was excluded from the analysis. The remaining groups were the ethnic group non-EU and the ethnic group multicultural; the ethnic group Dutch was used as the reference group. The groups for the immigrant generational status dummy variables were migrant and child of migrants, and the group with no migration history was used as the reference group. In addition, all continuous predictor variables were grand mean centered. The individual variables age, gender, FASIndex (i.e., family SES), ethnic origin non-EU, ethnic origin multicultural, migrant, and child of migrants were used as covariates.

Model 1 first included only the covariates. Next, to test the effects of the predictor variables, minority/majority congruence (Model 2), country of origin congruence (Model 3), immigrant congruence (Model 4), and SES incongruence (Model 5a) were added step by step, to assess the added value of each subsequent predictor for the explained variance in school belonging. The tested models were fully saturated (i.e., the number of parameters that are being estimated is equal to the number of data points; Geiser, 2013), which means that the models could not be tested on model fit or compared with one another. Therefore, we examined the estimated regression coefficients and the obtained proportion of the explained

variability in the outcome variables (i.e., R^2 value; Geiser, 2013). After SES incongruence was included in the model, the SES dummy variable was added to discover whether the direction of the difference in SES score between a participant and their classmates affected the outcomes (Model 5b). In Model 6, it was examined whether the effects of minority/majority, country-of-origin, immigrant, and SES incongruence differed for different ethnic groups with interaction variables. As the models were fully saturated, a multigroup analysis could not be performed. Therefore, we created eight interaction variables for the ethnic group dummy variables and the predictor variables: nonEU x MMC, nonEU x COC, nonEU x IC, nonEU x SESIC, Multi x MMC, Multi x COC, Multi x IC, and Multi x SESIC. Afterward, the insignificant interaction variables were excluded from the model. Lastly, the moderating role of SES was investigated for SES incongruence (Model 7a) and minority/majority, country-of-origin, and immigrant congruence (Model 7b) by adding the interaction variables: SES x SESIC, SES x MMC, SES x COC, and SES x IC.

Table 1

The multivariate regression models

	Predictor variables
Model 1	Covariates
Model 2	Covariates and minority/majority congruence (MMC)
Model 3	Covariates, MMC, and country of origin congruence (COC)
Model 4	Covariates, MMC, COC, and immigrant congruence (IC)
Model 5a	Covariates, MMC, COC, IC, and SES incongruence (SESIC)
Model 5b	Covariates, MMC, COC, IC, SESIC and SES dummy
Model 6	Covariates, MMC, COC, IC, SESIC, nonEU x MMC, nonEU x COC, nonEU x IC, nonEU x SESIC, Multi x MMC, Multi x COC, Multi x IC, and Multi x SESC
Model 7a	Covariates, MMC, COC, IC, SESIC, and SES x SESIC
Model 7b	Covariates, MMC, COC, IC, SESIC, SES x SESIC, SES x MMC, SES x COC, and SES x IC

Results

Preliminary analyses

The descriptive statistics of the two outcome variables and the predictor variables are presented in Table 2. For the binary variable SES relative difference, participants with a negative difference (i.e., those who had a lower SES than their classmates) constituted 48.1% and a positive difference 45.6% of the sample. A correlation matrix of all variables included in this study can be found in Table 3. Country-of-origin congruence and minority/majority congruence had a positive association with SB peers. In addition, Immigrant congruence and SES incongruence were not significantly correlated with any of the outcome variables.

Table 2

Descriptive statistics

	<i>Min.</i>	<i>Max.</i>	<i>M</i>	<i>SD</i>
SB peers	1.40	5.00	3.83	.74
SB school	1.67	5.00	3.94	.72
Country of origin congruence	0	79	24.32	26.78
Immigrant congruence	0	84	49	25.41
Minority/majority congruence	0	94	60.55	24.72
SES incongruence	.06	5.65	1.56	1.06

The individual variables age, gender, ethnic origin group, immigrant generational status, and family SES were included as covariates. The direct effects of these variables can be found in Tables 4 and 5. Gender had a negative association with both outcome variables, which means that boys tended to score higher on feelings of belonging to their peers and school. In addition, the ethnic groups non-EU and multicultural had a significant negative relationship with both outcome variables as well, which indicates that ethnic Dutch students

Table 3*Correlations of variables in the present study*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.
1. Age	-															
2. Gender	.03	-														
3. EG Dutch	-.29**	.01	-													
4. EG non-Eu	.32**	.01	-.52**	-												
5. EG multicultural	-.08	-.06	-.41**	-.47**	-											
6. IGS no migration	-.34**	.03	.78**	-.53**	-.14*	-										
7. IGS migrant	.29**	.04	-.29**	.29**	-.06	-.34**	-									
8. IGS child of migrants	.17*	-.03	-.49**	.29**	.19**	-.66**	-.38**	-								
9. SB peers	-.09	-.22*	-.04	-.01	.08	.01	.09	-.09	-							
10. SB school	-.15*	-.18*	-.02	-.02	.05	-.05	.05	-.05	.72**	-						
11. M/M congruence	.26**	-.01	-.18*	.33**	-.19**	-.20**	.12	.13	.17*	.14	-					
12. Country of origin congruence	-.09	-.11	.60*	-.19**	-.36**	.43**	-.22**	-.23**	.16*	.16*	.38**	-				
13. Immigrant congruence	-.05	-.02	.14	-.02	-.11	.14*	-.29**	.08	.09	.09	.66**	.46**	-			
14. Family SES	-.18*	.10	-.06	-.22**	.10	.19**	-.14	-.05	-.01	.02	-.17*	.11	.07	-		
15. SES incongruence	.19**	-.04	-.16*	.28**	-.13	-.22**	.01	.15**	-.00	.02	.17*	-.01	.01	-.24*	-	
16. SES dummy	.007	-.02	-.21**	.12	-.09	-.08	.11	-.02	.02	.04	.19*	-.08	.09	-.69**	.11	-

Note. * Significance at $p < .05$. ** Significance at $p < .01$.

(i.e., the reference group) tended to score higher on measures of school belonging than the other two ethnic groups.

Furthermore, the immigrant status child of migrants (i.e., second generation) had a negative association with the subscale school, suggesting that their classmates with no migration history score higher on a general sense of school belonging. Together, the covariates explained 51% and 59% of the variance in SB peers and SB school, respectively (see Tables 4 and 5).

The effects of classmates' characteristics on students' school belonging

To answer the first research question, to what extent the characteristics of classmates affect students' sense of belonging, the direct effects of minority/majority congruence, country-of-origin congruence, immigrant congruence, and SES incongruence were examined by adding the predictor variables step by step (see Table 4 and 5). In line with Hypothesis 1a, minority/majority congruence had a positive association with both SB peers and SB school. This implies that students' sense of belonging to their peers and school is higher when the percentage of classmates that shares the same minority/majority status is higher.

Contradictory to our expectations (Hypothesis 1b, 1c and 1d), for country-of-origin congruence, immigrant congruence, and SES incongruence, no significant associations were found. Interestingly, when SES incongruence was added to the model, the effect of minority/majority congruence on SB school became insignificant. This suggests that for students general belonging to school, minority/majority congruence might be of little importance as the effect is probably explained by SES incongruence instead. However, the direct effect of SES incongruence on SB school was not significant. The largest increase in explained variance ($\Delta R^2=0.04$ for SB peers and $\Delta R^2=0.03$ for Sb school; see Table 4 and 5) was from the model with only covariates (Model 1) to the model where minority/majority congruence was added (Model 2).

Table 4*Unstandardized estimates of covariates and predictor variables on SB peers*

	Model 1		Model 2		Model 3		Model 4		Model 5a		Model 5b		Model 6		Model 7a		Model 7b	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Age	-0.01	0.05	-0.06	0.06	-0.07	0.06	-0.08	0.06	-0.07	0.06	-0.07	0.06	-0.10*	0.05	-0.09	0.05	-0.01	0.05
Gender (0=boy; 1=girl)	-0.40**	0.10	-0.40**	0.10	-0.41**	0.09	-0.41**	0.09	-0.40**	0.09	-0.41**	0.10	-0.37**	0.08	-0.37**	0.09	-0.37**	0.08
Family SES	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.00	0.03	0.00	0.02
Ethnic group non-EU	-0.37**	0.12	-0.41**	0.09	-0.41**	0.09	-0.40**	0.09	0.39**	0.08	-0.39**	0.08	-0.19	0.12	-0.34**	0.11	-0.35**	0.11
Ethnic group Multi	-0.34**	0.02	-0.35**	0.03	-0.35**	0.03	-0.35**	0.03	-0.34**	0.03	-0.34**	0.04	-0.07	0.13	-0.13	0.08	-0.08	0.08
Status migrant	0.24	0.19	0.31	0.18	0.30*	0.19	0.24	0.25	0.22	0.23	0.22	0.23	0.40*	0.18	0.35*	0.17	0.41*	0.16
Status child of migrants	0.05	0.03	0.07	0.05	0.07	0.05	0.08	0.05	0.07	0.05	0.07	0.05	0.08*	0.03	0.06	0.03	0.06*	0.03
MMC			0.01**	0.00	0.01**	0.00	0.01**	0.01	0.01**	0.01	0.01**	0.01	0.00	0.00	0.01	0.01	0.01	0.01
COC					-0.00	0.00	-0.00	0.00	-0.00	0.00	-0.00	0.00	-0.00	0.00	-0.00	0.00	-0.00	0.00
IC							-0.00	0.01	-0.00	0.01	-0.00	0.01	0.01	0.00	-0.00	0.01	-0.00	0.00
SESiC									-0.03	0.04	-0.04	0.04	0.12	0.08	0.01	0.04	0.06	0.06
SESdum											-0.01	0.07						
MultixMMC													0.00	0.00				
MultixCOC													0.01*	0.00	0.01**	0.00	0.01**	0.00
MultixIC													0.00	0.00				
MultixSESiC													-0.06*	0.03	-0.03*	0.01	-0.04**	0.01
NonEUxMMC													0.01*	0.00	0.00	0.00	0.00	0.00
NonEUxCOC													0.01**	0.00	0.00	0.00	0.00	0.00
NonEUxIC													-0.01	0.01				
NonEUxSESiC													-0.21**	0.08				
SESxSESiC															0.03*	0.01	-0.02	0.02
SESxMMC																	0.00	0.00
SESxCOC																	-0.00	0.00
SESxIC																	-0.00*	0.00
R ² value	0.51**	0.08	0.55**	0.09	0.55**	0.09	0.55**	0.09	0.56**	0.09	0.56**	0.09	0.61**	0.08	0.58**	0.09	0.61**	0.08

Note. * Significance at $p < .05$. ** Significance at $p < .01$.

Table 5*Unstandardized estimates of covariates and predictor variables on SB school*

	Model 1		Model 2		Model 3		Model 4		Model 5a		Model 5b		Model 6		Model 7a		Model 7b	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Age	-0.02	0.03	-0.07	0.07	-0.08	0.08	-0.09	0.06	-0.09	0.07	-0.11	0.08	-0.15*	0.06	-0.10	0.07	-0.11	0.06
Gender (0=boy; 1=girl)	-0.24*	0.08	-0.24*	0.11	-0.25*	0.12	-0.25*	0.11	-0.25*	0.11	-0.24*	0.11	-0.26*	0.11	-0.25*	0.11	-0.23*	0.11
Family SES	0.05	0.03	0.05*	0.03	0.05*	0.03	0.06**	0.02	0.06*	0.03	0.03	0.04	0.06*	0.02	0.05	0.03	0.05	0.03
Ethnic group non-EU	-0.18*	0.13	-0.21**	0.06	-0.21**	0.06	-0.21**	0.07	-0.23**	0.08	-0.26**	0.08	-0.15**	0.16	-0.34**	0.12	-0.38**	0.11
Ethnic group Multi	-0.21**	0.10	-0.21**	0.03	-0.22**	0.03	-0.22**	0.03	-0.23**	0.03	-0.22**	0.03	-0.14	0.19	-0.22**	0.03	-0.22**	0.03
Status migrant	0.02	0.07	0.09	0.11	0.08	0.12	0.03	0.22	0.05	0.24	0.09	0.22	0.20	0.22	0.06	0.22	0.14	0.20
Status child of migrants	-0.26**	0.04	-0.24**	0.03	-0.23**	0.03	-0.23**	0.03	-0.23**	0.03	-0.20**	0.02	0.24**	0.03	-0.23**	0.04	-0.20**	0.04
MMC			0.01*	0.00	0.01**	0.00	0.01*	0.01	0.01	0.01	0.01	0.01	0.01**	0.01	0.01*	0.01	0.01*	0.01
COC					-0.00	0.00	-0.00	0.00	-0.00	0.00	-0.00	0.00	-0.00	0.00	-0.00	0.00	-0.00	0.00
IC							-0.00	0.01	-0.00	0.01	-0.00	0.01	0.01	0.00	-0.00	0.01	-0.00	0.01
SESC									0.05	0.06	-0.05	0.07	0.02	0.10	0.06	0.07	0.09	0.06
SESDum											-0.12	0.08						
MultixMMC													0.00	0.00				
MultixCOC													0.01	0.01				
MultixIC													0.00	0.00				
MultixSESiC													-0.04	0.05				
NonEUxMMC													-0.00	0.01				
NonEUxCOC													0.01**	0.00	0.00	0.00	0.00	0.00
NonEUxIC													-0.01	0.01				
NonEUxSESiC													-0.01	0.11				
SESxSESiC															0.01	0.02	0.02	0.02
SESxMMC																	-0.00	0.00
SESxCOC																	-0.00	0.00
SESxIC																	-0.00	0.00
R ² value	0.59**	0.06	0.62**	0.08	0.62**	0.08	0.62**	0.08	0.62**	0.08	0.63**	0.08	0.65**	0.08	0.63**	0.08	0.65**	0.08

Note. * Significance at $p < .05$. ** Significance at $p < .01$.

After adding SES incongruence, the effect of the SES incongruence dummy variable was examined (Model 5b, see Tables 4 and 5). The dummy variable had no significant associations with any of the outcome variables and the explained variance from Model 5a to Model 5b increased only very little ($\Delta R^2=0.00$ for SB peers, $\Delta R^2=0.01$ for Sb school; see Tables 4 and 5). Therefore, the SES dummy variable was excluded from the consecutive models.

The results thus indicated that SB peers and SB school were predicted by minority/majority congruence. The other congruence variables however did not add to the prediction of SB peers and SB school. That is, both country-of-origin congruence as well as immigrant and SES (in)congruence were not predictive of SB peers and SB school.

The moderating effects of ethnic origin group

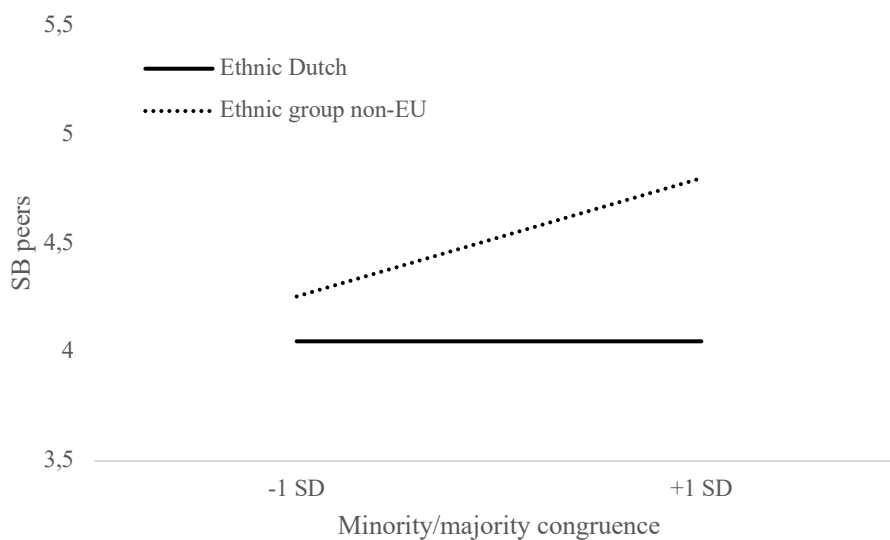
Next, the relationship between the ethnic origin groups and the predictor variables was examined by means of interaction variables (see Tables 4 and 5). In line with our Hypothesis 1e, for SB peers, the ethnic group non-EU interacted with minority/majority congruence, suggesting a difference in effect between the ethnic origin groups. Figure 1 indeed demonstrates that for students who belong to ethnic group non-EU, the effect of minority/majority congruence on belonging to peers was stronger than for Dutch-origin students.

Interestingly, although no direct effects of country-of-origin congruence were found, some interactions appeared to be significant (see Tables 4 and 5). For SB peers, both ethnic groups non-EU and multicultural had a significant positive interaction with country-of-origin congruence. This suggests that the effect of country-of-origin congruence on belonging to peers differs per group. More specifically, the effect of country-of-origin congruence is positive for students who belong to the ethnic group non-EU and multicultural, indicating that a higher share of classmates with the same origin country is positively related to their sense of

belonging (see Figure 2). This aligns with our Hypotheses 1b and 1e. The effect appeared to be slightly stronger for the multicultural origin group. Contrarily, the effect was negative for students who belong to the reference group, which means that students of Dutch origin experienced less belonging to their peers and school in general in a classroom with a higher percentage of co-ethnic peers (see Figure 2).

Figure 1

Interaction effect of minority/majority congruence and ethnic group non-EU on belonging to peers

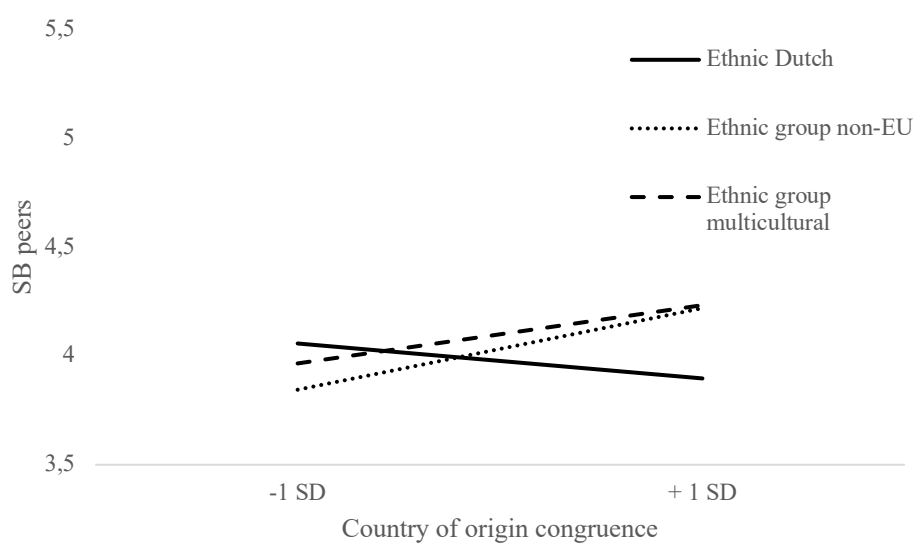


For SB school, there was also a significant interaction found between the ethnic group non-EU and country-of-origin congruence (see Table 5). For students' belonging to school, country-of-origin congruence also has contrasting effects. For ethnic Dutch students, the effect was negative whereas for students who belong to the ethnic group non-EU the effect is positive (see Figure 3). This means that a higher share of classmates from the same origin country is related to a weaker sense of belonging for ethnic Dutch students. Whereas for students who belong to the ethnic group non-EU, a higher percentage of classmates with the

same country of origin is related to a stronger sense of belonging to school. This is only partially in line with our Hypotheses 1b and 1e, as we did not expect the effect on country-of-origin students to be negative for ethnic Dutch students.

Figure 2

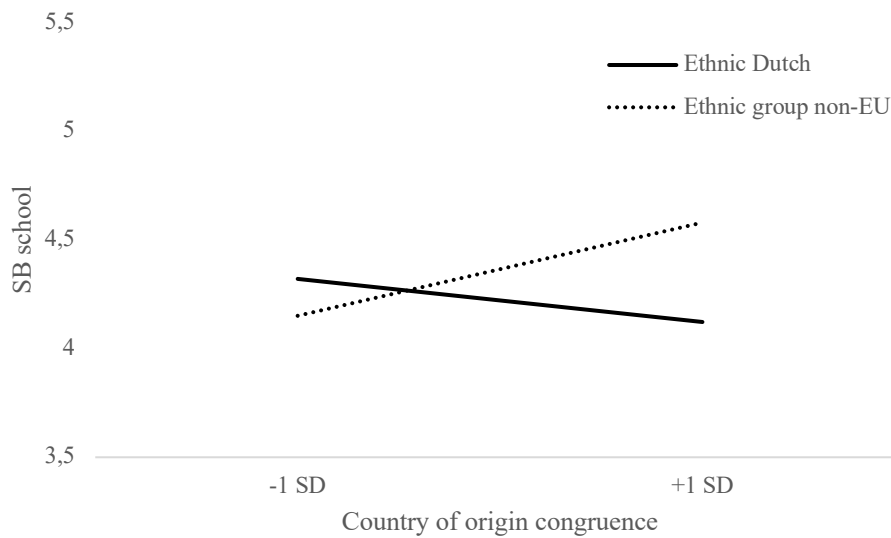
Interaction effect of country-of-origin congruence and the ethnic origin groups on belonging to peers



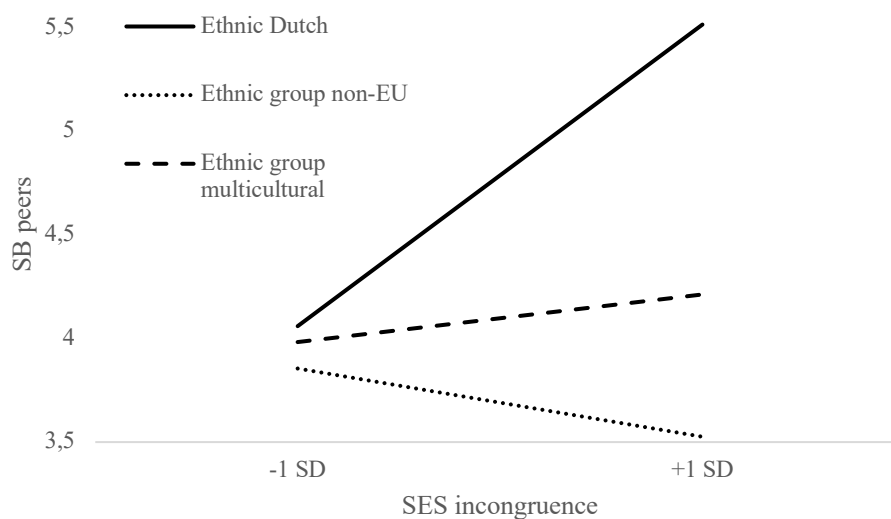
Furthermore, for SB peers, both ethnic groups had a significant negative interaction with SES incongruence (see Table 4). Figure 4 shows that for ethnic Dutch students and students with a multicultural background, the effect of SES incongruence is positive which suggests that more SES incongruence (i.e., a greater discrepancy in SES) is associated with stronger feelings of belonging. This contradicts our Hypotheses 1d and 2e. The positive effect is stronger for ethnic Dutch students. Contrarily, for students who belong to the ethnic group non-EU, the effect of SES incongruence is negative. This means that more SES incongruence is related to weaker belonging to peers, which was what we expected (Hypothesis 1d and 1e).

Figure 3

Interaction effect of country-of-origin congruence and the ethnic group non-EU on belonging to school

**Figure 4**

Interaction effect of SES incongruence and the ethnic origin groups on belonging to peers



The findings show that for both outcome variables, the individual characteristic ethnic origin group is associated with minority/majority, country-of-origin, and/or SES

incongruence. That is, for minority/majority congruence, the effects are stronger for different ethnic groups. In addition, for country-of-origin and SES incongruence, the effects are opposite for different ethnic groups. Together, the addition of the interactions increased the explained variance in SB peers and SB school by 5% and 2% respectively.

After the relationship between the ethnic origin groups and the congruence variables was investigated, the insignificant interaction variables were deleted from the model again, for parsimony purposes.

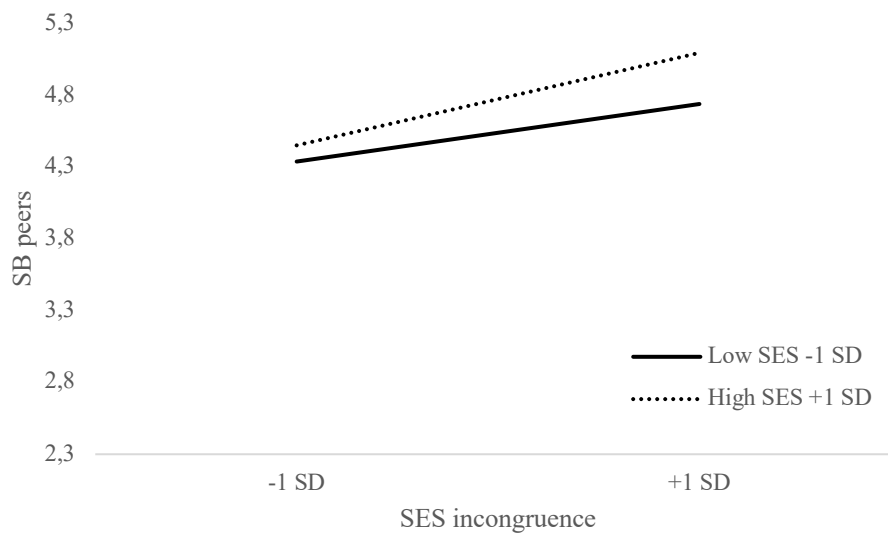
The moderating effects of family SES

Lastly, to answer Research Question 2, we investigated the moderating effects of family SES by adding interaction variables for SES incongruence in Model 7a and for minority/majority, country-of-origin, and immigrant congruence in Model 7b (see Table 4 and 5). For SB peers, we found a significant positive interaction of SES and SES incongruence (see Table 4). This suggests that, for low- and high-SES students alike, students who experience a greater SES incongruence (i.e., greater discrepancy in SES), feel more belonging to peers. For students with a high SES, this positive effect is slightly stronger (see Figure 5). These findings are not in line with our Hypothesis 2a.

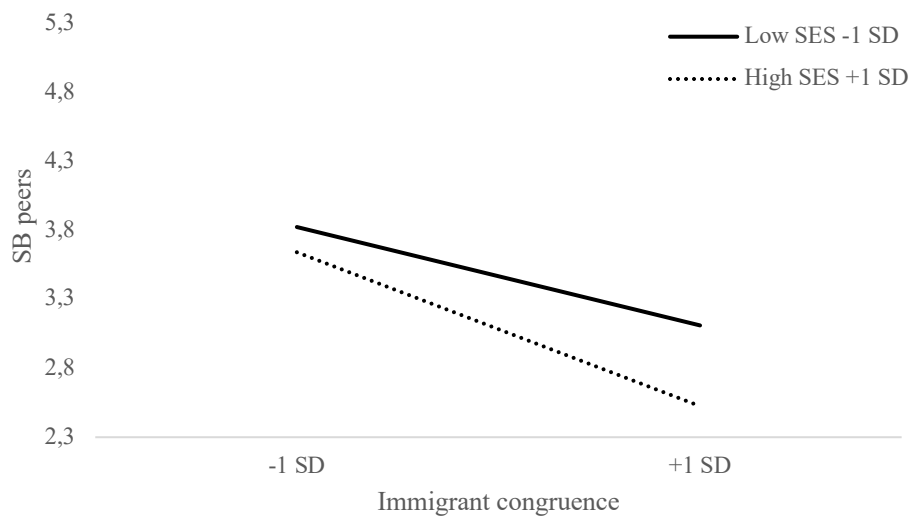
In addition, there was a significant negative interaction effect found for immigrant congruence on SB peers (see Table 4). It appeared that for both low- and high-SES students, the effect of immigrant congruence was negative, suggesting that a higher share of classmates with the same immigrant generational status resulted in lower feelings of belonging. Figure 6 shows that the negative effect of immigrant congruence is slightly stronger for students who have a higher SES. These findings are not in line with our hypothesis 2b because we expected there to be a positive interaction effect, which would be stronger for low SES students. No significant effects were found for the other congruence variables. In addition, no significant interaction effect was found for SB school.

Figure 5

Interaction effect of SES and SES incongruence on belonging to peers

**Figure 6**

Interaction effect of SES and immigrant congruence on belonging to peers



All in all, SES serves as a moderator for SES incongruence and immigrant congruence on SB peers. However, SES is not a moderator for the other congruence variables. In addition, SES does not moderate any relationship between the congruence variables and SB school.

The explained variance increases slightly more when adding SES as moderator for the country-of-origin congruence variables on top of the SES incongruence variable ($\Delta R^2=0.03$ for SB peers and $\Delta R^2=0.03$ for Sb school; see Table 4 and 5).

Discussion

Students' sense of belonging at school is, according to the person-context fit perspective, greatly influenced by the similarities students share with classmates (Block & Grund, 2014; El Zaatari & Maalouf, 2022; Lerner et al., 1985; McPherson et al., 2001; Titzmann, 2014). Previous research that investigated classroom composition effects often distinguished students solely based on minority/majority membership (Hornstra et al., 2015; Mok et al., 2016; Rjosk et al., 2017; Rodkin et al., 2007; van Vemde et al., 2023), which does not do justice to heterogeneity of both minority and majority group. In addition, few studies focused specifically on students' and classmates' socioeconomic background in relation to students' school belonging. Therefore, the present study investigated to what extent similarities with classmates affect students' sense of school belonging by analyzing the effects of minority/majority congruence, country-of-origin congruence, immigrant congruence, and SES incongruence. Overall, the findings of this study suggest that the characteristics of classmates matter for a student's sense of belonging to their peers and school. However, the findings that the effects of congruence differed based on students' own ethnic background and SES also highlight the importance of taking into account students' individual characteristics.

Consistent with previous research (Hornstra et al., 2015; Rjosk et al., 2017), it was found that the share of classmates with the same minority/majority membership promotes students' feelings of belonging to peers and school. In addition, based on previous research (Block & Grund, 2014; Georgiades et al., 2013; Graham et al., 2022; Mok et al., 2016; Thijs et al., 2019; Titzmann, 2014), we expected that more specific measures of classmates' ethnic

backgrounds, in terms of country of origin and immigrant generational status, would promote students' school belonging. We indeed discovered that, next to minority/majority congruence, country-of-origin and immigrant congruence play an additional role in students' school belonging. However, the small changes in explained variance showed that the effects of the congruence variables were rather limited.

School belonging and classmates' ethnic backgrounds

The effects of country-of-origin and immigrant congruence are affected by the individual characteristics of students. Country-of-origin congruence has opposite effects for different ethnic groups. More specifically, students with a migration background experienced a greater sense of school belonging when they attended a classroom with more classmates from the same country of origin. It is thus important to acknowledge the heterogeneity of the minority group, especially when examining their social well-being at school. Students with a migration background often experience weaker feelings of belonging at school, which was found in our study but also supported by previous research (Biggart et al., 2013; OECD, 2017; Patte et al., 2021; Rjosk et al., 2017). The finding that the presence of same-ethnic peers can foster school belonging for students with a migration background is therefore a very valuable one. As experiences with discrimination are one reason that could cause their overall weaker feelings of belonging (Carter, 2007; Heikamp et al., 2020; M. Hussain & Jones, 2021; Mello et al., 2012; Montoro et al., 2021; Russell & Mantilla-Blanco, 2022), it would be interesting for future research to discover how the presence of same-ethnic classmates might buffer against negative perceptions of belonging for students with a migration background. For example, by conducting interviews with students.

Contrarily, ethnic Dutch students felt less belonging in a classroom where more classmates shared the Dutch ethnicity. This finding is surprising and not in line with previous research (Rjosk et al., 2017; Thijs et al., 2019). A possible explanation could be that in more

homogenous Dutch classrooms, there is more focus on other ways that children deviate from the norm (e.g., behavior, clothing, reading abilities). According to the social misfit theory (Wright et al., 1986), individuals whose characteristics deviate from the norm group are prone to rejection and exclusion. Ethnic Dutch students in homogenous classrooms ‘fit in’ in terms of ethnicity but might be afraid to ‘misfit’ due to other characteristics. Consequently, ethnic Dutch students can feel less belonging in more homogenous classrooms. Nonetheless, it is a very interesting and valuable finding that ethnic Dutch students thus feel more belonging in heterogeneous classrooms.

In addition, the effects of immigrant congruence are moderated by SES. The findings showed that students felt less belonging in a classroom where a high percentage of students had the same immigrant generational status. This effect was stronger for students from high socioeconomic backgrounds. According to the sociological generational theory, children with the same immigrant status share a unique generational identity (Eyerman & Turner, 1998; Niño et al., 2017). However, it could be the case that within a generational status, there is still much diversity. For example, students can differ based on their identification with the ethnic group. Therefore, children might not necessarily prefer same-generation classmates but classmates who share their ethnic identification. This is in line with the social identity theory (Tajfel & Turner, 1986), which argues that people who more strongly identify with the ethnic group have a stronger preference for same-ethnic peers (Brown, 2000; Leszczensky & Pink, 2019). Leszczensky and Pink (2019) indeed found that high identifiers befriend same-ethnic peers who share their strong ethnic identification, while excluding same-ethnic low identifiers. It could be that ethnic identification plays a more prominent role in the classroom than generation status. For future research, it would be worthwhile to investigate this interplay of ethnic identification and generation status and students’ school belonging. In addition, as we found that high SES students’ felt even less belonging in classrooms with more same-

generation peers, it would also be interesting to examine how family SES affects students' ethnic identification.

School belonging and classmates' socioeconomic backgrounds

The present study was one of the first to measure congruence in socioeconomic status between students and their classmates to examine its relationship with school belonging. The findings show that differences in SES also have an impact, in particular for students' belonging to peers. However, the effects of SES incongruence are also dependent on the individual characteristics of classmates. Based on the person-context fit perspective (Lerner et al., 1985; McPherson et al., 2001; Titzmann, 2014) and the family investment model (Conger & Donnellan, 2007), we expected that students will feel more belonging in classrooms with a higher percentage of students that share the same SES. We indeed found that this is the case for students with a non-European migration background. Contrarily, students who have a partial or full ethnic Dutch background experience weaker feelings of belonging when more classmates have the same socioeconomic background. First of all, this shows that, in line with previous research (Mistry et al., 2015; Shutts et al., 2016; Sigelman, 2012), primary school-aged children notice differences in socioeconomic status. Based on indicators of family wealth, they make evaluations and judgments regarding peers' living standards (Mistry et al., 2015; Sigelman, 2012). Our findings suggest that these evaluations affect students' belonging to their classmates. Students with a non-European migration background, who experience more differences in terms of ethnicity, culture, and mother tongue language, might prefer to have classmates with similar living standards. The correlations showed that, in this study, the non-European group was associated with lower SES scores, which could also indicate that they feel more comfortable being around same-SES peers due to feelings of inferiority and shame (Inglis et al., 2022; Simons et al., 2018). In contrast, it could be that students who have a Dutch background, partial or full, experience more competition among same-SES

classmates. In addition, when students' individual SES was taken into account, it appeared that students felt less belonging when they attended classrooms where more students have the same socioeconomic backgrounds, whether below or above the class average. Students from high-SES households reported even weaker feelings of belonging than students from low-SES households. Previous research suggests that children also form judgments regarding character traits, social abilities (i.e., popularity), and academic competence of classmates based on their family wealth indicators (Mistry et al., 2015; Sigelman, 2012). Within classrooms that are homogenous in terms of SES, these judgments can foster a competitive classroom climate. Students from high-SES households might feel the need to show off their family's living standards even more when attending a classroom with same-SES peers, which apparently has a negative impact on their relationships. However, not much research has yet investigated to what extent children compare their family's SES in the classroom and how that could influence peer relationships and school belonging, which would be a very valuable direction for future research.

Limitations and directions for future research

The present study also has some limitations that are important to consider. Firstly, due to the low response rate of parents of some classes, the minority/majority, country-of-origin, immigrant, and SES incongruence scores may not have accurately reflected the population in the classroom. The share of classmates with the same characteristics may have been underestimated or overestimated, which is important to keep in mind when interpreting the results. Secondly, the identification of students' country of origin and ethnic origin groups relied on students' self-report. During data collection, we noticed that the question (i.e., to which group(s) do you and your family belong?) sometimes caused confusion among students. For example, students asked whether they had to indicate it for their whole family or core family (in Dutch: gezin). However, by asking students this directly, their answers reflect

the ethnicities they identify with. Especially for this research, which investigates students' ethnic backgrounds in relation to their classmates' ethnic backgrounds and their feelings of fitting in, this approach is valuable. Thirdly, we measured students' socioeconomic status with the Family Affluence Scale, which has been validated by previous research with slightly older children (i.e., aged 11-13; Boyce et al., 2006; Corell et al., 2021; Hobza et al., 2017; Torsheim et al., 2016). It is possible that the children in this study were too young to answer the questions accurately, truly reflecting their parents' wealth (Ridolfo & Maitland, 2011). For example, during data collection, children sometimes commented that they did not exactly remember how many times they had been on holiday abroad. Future research on SES congruence should consider measuring family SES through parental income, education, and/or occupation (Diemer et al., 2013). Fourthly, we only accounted for the nested data at the class-level because the TYPE=COMPLEX command only allows for the selection of one cluster variable. This means that the nested data at the school level was not taken into account, which may have influenced the results, particularly for the subscale of general belonging to school. Lastly, the data violated the assumption of homoscedasticity, which should be considered when interpreting the results.

Despite these limitations, the study provides valuable insights and interesting directions for future research. The findings of this study suggest that future research into students' social well-being should acknowledge the heterogeneity that exists within both the minority and majority groups. Zooming in on those differences, it seems that primary school-aged children may not always prefer to connect with similar peers, which contradicts the principle of homophily (Block & Grund, 2014; McPherson et al., 2001; Titzmann, 2014). For future research, it would be very interesting to untangle this further. For example, it seems worthwhile to investigate why same-ethnic Dutch students or same-SES students feel less connected to each other in the social context of the classroom. In addition, future research

should examine how congruence with teachers' characteristics affects students' relationships with teachers and general school belonging. Our sample was too small to include belonging to teachers, but previous research demonstrated that student-teacher relationships (Allen et al., 2021b; Tillery et al., 2013) and teachers' support (Allen et al., 2018; Kiefer et al., 2015) impact school belonging. Lastly, the research provides a reliable Dutch version of the PSSM for primary school-aged children, which is useful for future research that aims to discover the impacting factors of school belonging even further.

Practical implications

The findings of the current study have several practical implications. First of all, they highlight the importance of creating diverse school environments. Governments and school boards should collaborate to increase the diversity of student populations at primary schools in the Netherlands, allowing ethnic minority students to have more opportunities to attend classrooms with classmates who share their country of origin. Moreover, the finding that heterogeneous classrooms promote a sense of belonging among ethnic Dutch students underscores the importance of diversifying school contexts in terms of ethnic backgrounds.

Secondly, the findings show that belonging at school is not obvious to all students, emphasizing the need to actively work on promoting belonging at school. Knowing which factors impact students' school belonging provides schools and teachers with useful tools to foster it. Teachers can structure learning environments to create new opportunities to belong, for example, by grouping children according to minority/majority membership or origin country for certain collaborative projects (Allen et al., 2021a; Gray et al., 2022). In addition, schools can take action to minimize the apparent differences in socioeconomic status among students.

Conclusion

All in all, the present study showed that students' sense of belonging at school is affected by the characteristics of their classmates. More specifically, we found that in addition to minority/majority membership, origin country, immigrant generational status, and socioeconomic status (SES) all play a role in promoting students' belonging to peers and school. However, the effects of congruence with classmates' characteristics differed based on students' own ethnic and socioeconomic backgrounds. The findings demonstrate that the presence of same-ethnic peers can foster school belonging for students with a migration background, which is especially valuable as these students often experience weaker feelings of belonging. However, ethnic Dutch students felt less belonging in a classroom where more classmates shared the Dutch ethnicity. In addition, immigrant and SES congruence both negatively affected school belonging, which was moderated by students' own SES. The findings highlight the importance of acknowledging the heterogeneity of both minority and majority groups, especially when examining their social well-being at school. In addition, this study underscores the importance of creating diverse classrooms and the need for further research to explore the mechanisms through which same-ethnic and same-SES classmates can lead to stronger or weaker school belonging for students from different backgrounds.

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Appendix A

Student Questionnaire

Items students' demographics

0.0 Wat is je voor- en achternaam?

0.1 Hoe oud ben je?

- 7 jaar (1)
- 8 jaar (2)
- 9 jaar (3)
- 10 jaar (4)
- 11 jaar (5)
- 12 jaar (6)
- 13 jaar (7)

0.2 Ik ben een:

- Jongen (1)
- Meisje (2)

Items students' ethnic origin group and immigrant generational status

1.1 Klik aan bij welke groep je familie en jij horen. Als de groep er niet bij staat, mag je het zelf invullen. Je mag meer dan één groep aanklikken.

- Nederlanders
 - Turken
 - Marokkanen
 - Surinamers
 - Somaliërs
 - Polen
 - Chinezen
 - Antillianen
 - Afghanen
 - Syriërs
 - Anders, vul zelf in:

 - Weet ik niet
-

1.2 Ben jij in Nederland geboren?

- Ja
- Nee

1.3 Zijn je ouders in Nederland geboren?

- Ja, allebei
- 1 ouder is in Nederland geboren
- Nee, geen ouder is in Nederland geboren

Items Family Affluence Scale (FAS)

2.1 Heeft je familie thuis een auto of bus?

- Nee, 0
 - Ja, 1
 - Ja, 2 of meer
-

2.2 Hoeveel badkamer(s) zijn er thuis?

- 0
 - 1
 - 2
 - 3 of meer
-

2.3 Hoeveel computers, laptops of tablets zijn er thuis?

- 0
 - 1
 - 2
 - Meer dan 2
-

2.4 Heb je een eigen slaapkamer voor jou alleen?

- Ja
- Nee
-

2.5 Is er een vaatwasser thuis?

- Ja
- Nee
-

2.6 Hoe vaak ben je dit jaar met familie naar het buitenland op vakantie gegaan?

- 0 keer
- 1 keer
- 2 keer
- 3 keer of meer

Items Psychological Sense of School Membership Scale (PSSM)

3.1 Ik voel me echt onderdeel van mijn school.
Onderdeel voelen van: of je erbij hoort.

- Helemaal eens
- Eens
- Beetje eens, beetje oneens
- Oneens
- Helemaal oneens
-

3.2 De juffen en meesters merken het als ik ergens goed in ben.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.3 Het is moeilijk voor kinderen zoals ik om op school geaccepteerd te worden.
Geaccepteerd worden: jezelf kunnen zijn.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.4 Andere klasgenoten nemen mijn mening serieus.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.5 De meeste juffen/meesters van mijn school zijn in mij geïnteresseerd.
Geïnteresseerd zijn: nieuwsgierig zijn en vragen stellen.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.6 Soms heb ik het gevoel dat ik niet op deze school thuis hoor.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.7 Er is op deze school ten minste 1 leraar of andere volwassene met wie ik kan praten als ik een probleem heb.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.8 De mensen op school zijn vriendelijk tegen me.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.9 Leraren hier zijn niet geïnteresseerd in kinderen zoals ik.
Geïnteresseerd zijn: nieuwsgierig zijn en vragen stellen.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.10 Ik word bij veel activiteiten betrokken op school.
Betrokken worden: ergens over meedenken.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.11 Ik word met evenveel respect behandeld als andere kinderen.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.12 Ik voel me heel anders als de andere kinderen hier op school.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.13 Op deze school kan ik echt mezelf zijn.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.14 De juffen en meesters hier respecteren mij.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.15 De juffen en meesters hier weten dat ik hard kan werken.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.16 Ik wou dat ik op een andere school zat.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.17 Ik ben er trots op om bij mijn school te horen.

- Helemaal eens
 - Eens
 - Beetje eens, beetje oneens
 - Oneens
 - Helemaal oneens
-

3.18 Mijn klasgenoten mogen me zoals ik ben.
Iemand mogen: iemand aardig vinden.

- Helemaal eens
- Eens
- Beetje eens, beetje oneens
- Oneens
- Helemaal oneens