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Does the same teacher's attitude fit all students? Uncovering student-specific variance of teachers' attitudes towards all of their students

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ABSTRACT

In this study, inter- and intra-individual differences of teachers' attitudes towards their students are investigated. Thirty-two teachers from inclusive primary school classes from Austria participated in the survey. Teachers filled out the ATIS scale for each of their students ($N = 473$ students; 55 students with SEN). The results of multilevel analyses indicate a high student-specific variance of teachers' attitudes towards their students. Predictors of teachers' attitudes towards students were only found at the student level (students' migrant background and behavioural problems), not at the teacher level (teaching experience, teachers' general attitudes towards inclusion and teachers' general self-efficacy beliefs).

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Introduction

Inclusive education and teachers' attitudes

Inclusive education is one of the most frequently addressed research topics of the last century. Even in the recent context of COVID-19 and its impact on the education system, inclusive education played a significant role (see, e.g. Lindner et al. 2023). According to Haug (2017), 'Most European countries have acknowledged inclusive education as a means to secure equal educational rights for all persons' (206). Similarly, changes in European policies towards inclusive education pointed out a shift from addressing only students with disabilities and or special educational needs (SEN) to addressing the individualities of all students and valuing diversity (for an overview, see, e.g. Schwab 2020). However, while equality and high educational quality for all students in education were secured in policy papers, often, inclusive education is operationalised using a distinction of students with and without SEN in the same class for inclusive settings and students with SEN in special classes for non-inclusive settings as

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the only characteristic. In Austria, for example, the federal state of Styria was known as a ‘inclusive role model’, since the number of students with SEN in Styria was relatively high compared to other federal states (for an overview, see, e.g. Schwab 2018).

According to the literature review (e.g. Avramidis and Norwich 2002; de Boer, Pijl, and Minnaert 2011; Lindner et al. 2023; Schwab 2018) and study results (e.g. Hellmich, Löper, and Görel 2019; Wilson et al. 2016), especially teachers’ attitudes towards inclusive education influence is especially influential in its success (see also Boyle, Anderson, and Allen 2020). Therefore, it is not surprising that attitude is a popular research topic in the field of inclusion (Avramidis and Toulia 2020; Lüke and Grosche 2018; see also, de Vroey, Struyf, and Petry 2016; van Mieghem et al. 2020).

While summarising the definitions of attitudes, its terminological ambiguity and its complexity became obvious. The ABC model of Eagly and Chaiken (1998; see also Triandis 1971) refers to three components, namely, the affective, the behavioural and the cognitive. According to Allport (1935), who is one of the pioneers of attitude research, attitude is defined as ‘a mental and neural state of readiness, organised through experience, exerting a directive or dynamic influence upon the individual’s response to all objects and situations with which it is related’ (810). Regarding teachers’ attitudes, Pit-ten Cate and Glock (2019) point out that ‘explicit attitudes infer deliberation and reflection, hence affecting controlled behavior’ (1). Based on the results of their meta-analysis, van Steen and Wilson (2020) state that, ‘Attitudes towards inclusion do not occur in a vacuum, but are a product of societal, and possibly historical, artefacts that shape society and inform common values’. Further, teachers’ attitudes towards inclusive schooling can differ in specific attitudes towards the inclusion of students with specific characteristics (e.g. learning disabilities, behavioural disorders), general attitudes towards a specific group (e.g. students with SEN) or general attitudes towards the concept of inclusive education (Pit-ten Cate et al. 2019).

A student-specific perspective on teachers’ attitudes

Several reviews (Avramidis and Norwich 2002; de Boer, Pijl, and Minnaert 2011; Schwab 2018) underpin that the kind of disabilities of the included child is an important predictor of teachers’ attitudes towards inclusion. In this context, plenty of studies used specific wordings (such as ‘students with learning disabilities’) in the introduction, items (see, e.g. Sharma and Jacobs 2016) or case vignettes of fictive students with specific kinds of SEN (e.g. learning disabilities) to assess teachers’ attitudes (e.g. Kast and Schwab 2023; Schwab 2018). Studies that try to avoid addressing specific students (such as students with disabilities) are rather rare (see, e.g. Schwab, Resch, and Alnahdi 2021).

Further, research that focuses on categories other than SEN is rarely available in the literature. Recent studies more often take into account teachers’ attitudes towards students of different ethnicities or migrant background (Abacioglu et al. 2019; Geerlings, Thijs, and Verkuyten 2018; Glock and Kleen 2019; Glock, Kovacs, and Pit-ten Cate 2019; Kast et al. 2021; Kast and Schwab 2023; for an overview, see also Pit-ten Cate and Glock 2019). Although less often, socio-economic status (e.g. Auwarter and Aruguette 2008; Kast et al. 2021) of students has been taken into account. While in the context of inclusive education it is not different categories that should be addressed, but rather students’ diversity and heterogeneity of students, literature using such a broad

understanding of inclusive education is hardly available (based on our research), but needed (e.g. see Schwab, Resch, and Alnahdi 2021). This inclusion of just some students or student groups but not every single student marks a research gap as it is against the actual understanding of inclusion (see, e.g. Schwab 2020).

Within the context of teachers' self-efficacy, a new idea was introduced by Zee, de Jong, and Koomen (2016) and Zee et al. (2016), who argue that alongside the global concept of teachers' self-efficacy, a dyadic approach (one teacher–one student dyad) is needed as there is high variance in teachers' self-efficacy towards their students. While a teacher can feel a very high level of self-efficacy towards one student of their class, they might feel much less efficacy towards another one. Teachers' self-efficacy might be explained to some extent by teacher characteristics (e.g. for teaching experience, see Zee et al. 2016), student characteristics (such as SEN or behavioural problems; Sawyer et al. 2022; Schwab 2019; Schwab, Resch, and Alnahdi 2021; Zee, de Jong, and Koomen 2016) and the interaction between a teacher and a specific student. While previous literature on teachers' self-efficacy (e.g. Kast et al. 2021) used case vignettes of fictive students, Zee, de Jong, and Koomen (2016) and Zee et al. (2016) focused on the real students in classes. Therefore, apart from a much higher impact on the practice, the external validity of their approach is also higher than that of experimental studies using case vignettes (where the internal validity is assumed to be high). As teachers' self-efficacy is linked with their attitudes (see, e.g. Savolainen, Malinen, and Schwab 2022; Yada et al. 2022), there might be uncovered student-specific variance for teachers' attitudes. However, based on literature review, to the best of our knowledge, a student-specific approach has not been utilised in the investigated for teachers' attitudes towards inclusive education.

Study aim

The current study aims to identify the amount of student-specific variance in teachers' attitudes towards their students. Based on results in the context of teachers' self-efficacy (see Schwab 2019; Zee, de Jong, and Koomen 2016; Zee et al. 2016), it is expected that there will be more variance at the student level (between a teacher and all of their students) than at the teacher level (variance among teachers). Therefore, the influence of students' characteristics will be analysed, and the following hypothesis are assumed:

- Having SEN is negatively linked with teachers' attitudes.
- Having a migrant background is negatively linked with teachers' attitudes.
- Having behavioural problems is negatively linked with teachers' attitudes.

Further, students' gender will be controlled for. On the teacher level, a general attitudes scale will be used as a control variable (to underpin the relevancy of the dyadic approach if there is still high variance at the student level when controlling for the general attitudes scale). Additionally, at the teacher level, teaching experience and self-efficacy beliefs will be added as a predictor of teachers' attitudes, as it is expected that

- The more the teaching experience, the more positive the attitude.
- The higher the teachers' self-efficacy beliefs, the more positive the attitude.

Method

Procedure

For the current study, data from the Attitudes Towards Inclusive Schooling – Students, Teachers and Parents (ATIS-STEP) study (see Schwab 2018) have been used. In this project, inclusive primary classes¹ from rural and urban areas of the federal state of Styria (Austria) were invited to participate in a survey. Only Grade 4 was included as it marks the end of primary school in Austria, and, at this grade, class teachers² are assumed to have already worked intensively for four years with the same children (as the class teachers teach nearly all the subjects). The ethical approval for the study was given by the local school authority (Styrian Regional School Authority). In the first step, the project team contacted public schools via phone, and if there were fourth graders with a formal diagnosis of SEN, the respective teachers were asked to participate in the survey. Before the data collection, parents were informed about the study and gave written consent to participate in the survey. As not all parents returned the signed consent form, some students dropped out of the study. Teachers filled out one general questionnaire (e.g. about the years of their teaching experience, about general attitudes towards inclusive education) as well as one short questionnaire about each student of their class. For 32 classes, the student-specific questionnaires for each student were filled out for both measurement points (the beginning and the end of Grade 4); the data of these 32 classes were used.

Participants

In total, 32 teachers³ (30 females and 2 males) took part in the survey. The mean age of the teachers was 41.3 years ($SD = 11.37$). The years of teaching experience varied between 2 and 36 years ($M = 16.3$, $SD = 11.9$). The teachers filled out the student-specific questionnaires for a total number of 473 students (221 boys, 227 girls, 25 without gender specification). All students attended Grade 4 public primary schools in rural or urban areas of Styria. Therefore, their ages ranged between approx. Nine and 11 years during the first measurement point. Out of the 473 students, 55 had an official diagnosis of SEN. In Austria, the local school authority gives this label after a diagnosis procedure. This diagnosis most often refers to learning disabilities, indicating a lower intelligence as well as lower school achievement in all subjects. In this study, the majority of students with SEN diagnosis had learning disabilities (64.3%), around 14.3% were diagnosed with social and behavioural disorders and around 11.9% were diagnosed with sensory disabilities (e.g. seeing or hearing difficulties). Further, teachers were asked to rate the nationalities of all of their students. According to the teachers, 143 students had migrant backgrounds. The sample is not representative of the population of Austrian students as students labelled as having SEN, migration biography and low socio-economic background were overrepresented in the sample.

Although the current study addressed teachers' attitudes towards all of their students, the intersectionality of students' characteristics could not be considered due to a limited sample. Moreover, given the small sample size of students labelled as having SEN, interaction effects between different characteristics could not be taken into account.

Instruments

Teachers' student-specific attitudes

To assess teachers' attitudes towards all of their students, the Attitudes Towards Inclusion Scale (ATIS; see Schwab et al. 2012) was used. In its original form, a case vignette of a fictive student and class setting was introduced before answering the items. For example, one of the cases described Lukas, a student with serious problems with reading, writing and numeracy. However, in that study, no case description was given; instead, teachers were asked to rate all items for each of their students in class. The scale consists of six items:

- (1) 'I think that this child feels alone and isolated in this class'.
- (2) 'I think that this child is developing a positive self-concept in this class'.
- (3) 'I think that this child is developing weaker self-confidence in this class'.
- (4) 'I think that this child's achievement motivation increased through comparison with his classmates'.
- (5) 'I think that the teaching quality in this class is very good for this child'.
- (6) 'I think that this child learns a lot in this class'.

A 4-point Likert scale (1 = 'Not at all true', 2 = 'Somewhat not true', 3 = 'Somewhat true', 4 = 'Certainly true') was used. For the original version of the scale (see Schwab et al. 2012; Schwab, Hellmich, and Görel 2017), high quality of the scale was found. However, as this scale had never been used in a student-specific context where a teacher rates their own students, in this study, the psychometric quality of the current sample was assessed using preliminary analyses.

Teachers' attitudes towards inclusive education

To assess teachers' general attitudes towards inclusive education, the Attitudes Towards Inclusion (Einstellungen zur Integration [EZI]) Questionnaire (Kunz, Luder, and Moretti 2010) was used. This German scale was developed based on previous work and refers to the Teacher Attitudes Towards Inclusion Scale (see Bryer et al. 2004; Stanley et al. 2003). The scale consists of 11 items, which are answered using a 6-point Likert scale (ranging from 1 = 'Totally disagree' to 6 = 'Totally agree'). Kunz, Luder, and Moretti (2010) already showed the acceptable internal consistency of the scale for teachers (Cronbach's alpha = .80).

Teachers' self-efficacy beliefs towards inclusive education

Teachers' self-efficacy beliefs were assessed using the Teacher Inclusive Education Self-Efficacy Scale (TIESES; see, e.g. Görel 2019; Hellmich and Görel 2014; Schwab, Hellmich, and Görel 2017). This German-language instrument was developed on the basis of studies by Jerusalem and Schwarzer (1981), Kopp (2009) and Schwarzer and Schmitz (1999). The items (e.g. 'I am sure that, even with larger performance differences, I will be able to provide adequate learning opportunities for each individual child in my inclusive class') were answered on the same Likert scale as was used for assessing the teachers' general attitudes. Good psychometric properties for this instrument in the context of teachers have already been demonstrated by Hellmich and Görel (2014).

SEN

To identify if students had SEN, class teachers were asked to indicate if a formal diagnosis of SEN was assigned by the local school authority. In the standard procedure, if teachers or parents observe that a student is struggling (e.g. in their learning development or social-emotional development), an official process is started and the local school authority starts a diagnostic process, which ends in a formal diagnosis of SEN (if necessary). In this diagnosis, decisions about the curricula (e.g. if a student needs a curricula for learning disabilities or for severe mental disabilities) are also made. In the school year 2018/19, 6% of Austrian students were identified as having SEN (see data from Statistic Austria 2020), and most of them were diagnosed as having learning disabilities. Nowadays, inclusive and special education is possible for Austrian students who are labelled as having SEN. In inclusive classes, a second teacher who is trained in SEN co-teaches with the class teacher if around three to five students with SEN are in the class (for an overview about the education system, see, e.g. Schwab 2018; for students with SEN, see, e.g. Buchner and Proyer 2020).

Behavioural problems

Students' behavioural strength and difficulties were assessed using the Strengths and Difficulties Questionnaire (SDQ; Goodman and Goodman 2011). This widely used screening instrument has a teacher version for identifying students' problem behaviour as well as prosocial behaviour. The SDQ comprises five subscales (emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and prosocial behaviour). All of the subscales consist of five items (25 items in total). The psychometric properties for the German version of the SDQ have already been proved (e.g. Klasen et al. 2000).

Data analysis

The data were analysed in four different steps. First, the data were screened to identify missing values and outliers and to ensure that the data is suitable for further analysis. Second, the reliability statistics for all used instruments were calculated. Third, descriptive statistics were calculated by different independent variables. Fourth, a multilevel regression model analysis was used to examine the predictability of different variables related to the class level (teacher level) and student level. Multilevel regression models have several advantages over other statistical analyses (Enders and Tofighi 2007), such as the ability to account for a hierarchical structure of the data and the examination of both individual-level and group-level effects (Raudenbush and Bryk 2002). The IBM SPSS Statistics 21 software and AMOS software were used for the statistical analyses.

Results

Preliminary results of testing the psychometric quality of the used scales

The reliability of the used instruments was examined by calculating Cronbach's alpha. Table 1 shows that obtained alpha values lie in a good range, from .7 for students' peer relationship subscale to close to .9 for student-specific attitude. These values reflect the good internal consistency of the used instruments (George and Mallery 2003).

Table 1. Cronbach's alphas.

Instruments	Number of items	Alpha	N
Student-specific attitudes	6	0.86	473
Teachers' attitudes towards inclusive education	11	0.74	32
Teachers' general self-efficacy	7	0.89	32
Students' emotional symptoms	5	0.77	473
Students' conduct problems	5	0.75	473
Students' hyperactivity/inattention	5	0.84	473
Students' peer relationship	5	0.69	473
Students' prosocial behaviour	5	0.83	473

For the student-specific attitudes scales, apart from the reliability, the factorial structure was also analysed, as the scale had not been used in a student-specific way. Confirmatory factor analysis was used to examine whether the observed data would fit the hypothesised (single factor) structure, since obtaining indicators that the data fit the hypothesised model supports the construct validity of the scale. Different fit indices were examined, such as the comparative fit index (CFI), the root mean square error of approximation (RMSEA), the Tucker–Lewis index (TLI) and the goodness of fit index (GFI). The fit indices supported the model – CFI was $>.95$ ($=.99$), RMSEA was $<.06$ ($=.056$), TLI was $>.95$ ($=.98$) and GFI was $>.95$ ($=.98$; Hu and Bentler 1998; 1999; Pugesek, Tomer, and Von Eye 2003; Schermelleh-Engel, Moosbrugger, and Müller 2003). It is worth mentioning that errors among Items 1, 2 and 3 and between Items 5 and 6 covaried (see Appendix for all six items). Figure 1 demonstrates this model and shows the loading of all six items on the latent variable.

Predictors of teachers' student-specific attitudes

Table 2 presents the mean values and standard deviations of student-specific attitudes based on the students' variables. Generally, all the mean values are rather high and above the theoretical mean of the scale (considering the range from 1 to 4, the theoretical mean is 2.5). For example, the mean is 3.10 ($SD = 0.58$) for students with SEN, while the mean is 3.47 ($SD = 0.47$) for students without SEN. The group difference test indicated that this difference was significant. Further, teachers' attitudes were more positive

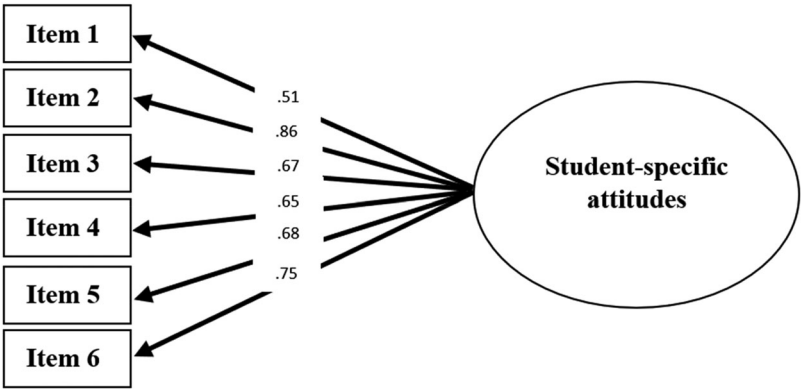


Figure 1. Confirmatory factor analysis of the student-specific attitudes scale.

Table 2. Teachers' student-specific attitudes mean & standard deviations by students' variables.

Independent variables		<i>M</i>	<i>SD</i>	<i>N</i>	Minimum	Maximum	Median
SEN	No	3.47	0.47	393	1	4	3.50
	Yes	3.10	0.58	55	1	4	3.00
Student Gender	Boy	3.38	0.58	221	1	4	3.40
	Girl	3.48	0.50	227	1	4	3.50
Migrant background	No	3.50	0.46	268	2	4	3.66
	Yes	3.33	0.54	143	1	4	3.33
	ALL	3.43	0.50	448*	1	4	3.50

*Differences between the total and the sample size 473 are missing information.

towards students without migrant backgrounds ($M = 3.50$, $SD = 0.46$) and less positive for students with migrant backgrounds ($M = 3.33$, $SD = 0.54$). Moreover, regarding students' gender, a (small) significant effect was found, indicating a slightly more positive attitude towards girls.

Next, we ran two models using multilevel regression model analysis to examine the level of variances that could be explained at the student and class levels regarding teachers' student-specific attitudes. First, a model with no predictors was implemented. This model showed that 30% of the variances were at the teacher level (student-specific variance = 0.7, variance at the teacher level = 0.3, deviance = 1236, Wald $Z = 3.4$, $p < 0.01$).

Second, a model with 11 predictors was implemented. Three variables were related to the teacher level – teacher's general attitudes towards inclusive education, self-efficacy and years of experience. In addition, eight variables related to students were included: whether the student has SEN, student's migration background, gender, emotional symptoms, conduct problems, hyperactivity/inattention, peer problems and level of prosocial behaviours. This model showed that 24% of the variances were at the teacher level (student-specific variance = 0.46, variance at the class level = 0.24, deviance = 876, Wald $Z = 3.34$, $p < 0.01$).

Four variables showed to be significant indicators of teachers' student-specific attitudes: student's migration background ($\beta = -0.273$, $p < 0.01$, $t[392.53] = -3.21$, $SE = 0.09$), hyperactivity ($\beta = -0.267$, $p < 0.01$, $t[372.82] = -5.36$, $SE = 0.05$), peer relationship problem ($\beta = -0.211$, $p < 0.01$, $t[382.93] = -4.76$, $SE = 0.04$) and conduct problem ($\beta = 0.129$, $p < 0.01$, $t[375.56] = 2.43$, $SE = 0.05$). Conversely, teachers' variables (teachers' general attitudes towards inclusive education, self-efficacy and years of experience) were not found to be significant predictors of teachers' student-specific attitudes in this model (see Table 3).

In sum, results showed that teachers were less positive with students with migrant background, high level of hyperactivity and problems in peer relationship. Further, they suggested that higher contact problems are slightly related with a more positive teachers' attitude.

Discussion

Existing literature on teachers' attitudes towards students does not take into account that teachers' attitudes might be student-specific, as every single student is an individual. To fill this gap, in this study, a multilevel exploration was used to investigate how much teachers' attitudes depend on students' characteristics.

Table 3. Estimates of the multi-level regression analyses to predict student-specific attitudes of teachers (model with predictors).

	<i>B</i>	<i>SE</i>
Students' SEN	−0.23	0.13
Students' migrant background	−0.27**	0.09
Students' gender	−0.017	0.08
Students' emotional symptoms	−0.06	0.04
Students' conduct problems	0.129*	0.05
Students' hyperactivity/inattention	−0.267**	0.05
Students' peer relationship	−0.211**	0.04
Students' prosocial behaviour	0.068	0.05
Teachers' attitudes towards inclusion	0.147	0.09
Teachers' general self-efficacy	0.134	0.09
Teachers' years of experience	0.099	0.10
Intra-group-variance	0.46**	0.04
Inter-group-variance	0.24**	0.07
Deviance	876	

* $p < .05$; ** $p < .01$.

First, the descriptive results of the current study indicated that Austrian teachers have not yet reached an 'all means all' attitude (see, e.g. Global Education Monitoring Report 2020). Rather, teachers tend to have a more negative attitude towards students with SEN (than those without SEN) as well as towards students with migration backgrounds (than those without migrant background). Although this result does not differ from previous literature, it is somewhat interesting, as in the current study, different categories of diversity have not been used. Instead, teachers' attitudes towards all of their students were assessed, and it was checked if group categories also exist. Methodologically, use of categories in teachers' attitudes scales can be criticised as this suggests that individual students can be categorised into simple categories (for an overview about this, see, e.g. Meyer, Schröter, and Bierschwale 2021). In fact, there were large differences among individuals belonging to the same category (e.g. those having SEN). Moreover, not explicitly checking attitudes towards specific subgroups might reduce normative response bias or tendency towards social desirability. In addition, an advantage of examining teachers' attitudes towards their students is that it provides the possibility to use references. For example, most studies only assess teachers attitudes towards a specific group (e.g. students with SEN) but do not clarify teachers' attitudes towards non-group members (e.g. students without SEN). In this context, it might not be expected that each class will be the best opportunity for each single child to develop in the best way possible for them. Therefore, a reference would be meaningful for interpretation. For instance, Schwab (2018) has already claimed that teachers' attitudes towards a (fictive) student with learning disabilities do not differ much from their attitudes towards a (fictive) regular student. Further, Schwab (2018) also suggests that teachers' attitudes do not score maximum on the scale for regular students. Focusing on the descriptive results of the current study, it can be pointed out that generally, teachers' attitudes are pretty positive towards all students, as the empirical mean towards all students was relatively close to the scale maximum. However, still some (slight) differences for different students groups were found. This indicates that the basic idea of inclusion – that all students should get equal opportunities to develop best – has not reached teachers' attitudes yet. Thus, teachers still differentiate students' educational opportunities based on student characteristics.

Second, results of the multilevel analysis indicated that the variance of teachers' student-specific attitudes can partly be explained at the teacher level (e.g. by teachers' class-level characteristics) and mostly (70% of variance) by student characteristics. Here, it is important to note that the official diagnosis of having SEN did not reach the level of significance when controlling for other variables, for example, students' behaviour. This underpins that teachers' attitudes towards students with and without SEN in relation to learning difficulties do not differ much. However, a tendency towards a more negative attitude towards students with SEN can be noted. A further explanation on this result might be that diagnosis of SEN is not reliable and valid (for SEN in Austria, see, e.g. Schwab, Kopp-Sixt, and Bernat 2015). Moreover, especially since students' behaviour was controlled in this study, the effect of SEN might have reduced. Previous studies often show a high comorbidity between SEN and behavioural difficulties. In this study as well as in Schwab's (2018) study, it was observed that hyperactivity and/or inattention difficulties lead to a significantly more negative teachers' attitudes. Moreover, peer relationship problems were also a significant predictor of teachers' attitudes. A possible explanation might be that the items of the used attitudes scale specifically focused on students' emotional-social development and social participation. (For instance, Item 1: 'I think that this child feels alone and isolated in this class'; Item 2: 'I think that this child is developing a positive self-concept in this class'). Contrary to expected results, having conduct problems showed a (small) positive effect on teachers' attitudes. Apart from behaviour, students' migrant background was also a significant predictor of teachers' attitudes, indicating a less positive attitude for students having migrant background. This is not surprising as, for example, Item 6 ('I think that this child learns a lot in this class') is related to students' learning outcomes. For Austria, large-scale assessments constantly show that migrant background is risky for students' learning development. Further, previous results indicate that belonging to the group of students with migrant background is a risk factor for social inclusion (e.g. Krawinkel et al. 2018). However, keeping in mind that teachers' attitudes are also linked with students' outcomes, the less favourable attitude towards students with migrant background might worsen the situation of those students.

Concentrating on teacher level, a bit less than one-third of the variance of teachers' attitudes was found at this level. Using a classic attitudes scale (which does not focus on real students but rather on the general idea of inclusion) as a prediction factor did not contribute significantly in explained teachers' student-specific attitudes. In addition, teachers' general self-efficacy beliefs as well as their years of teaching experience did not significantly predict teachers' student-specific attitudes. This might be explained by a methodological effect: While in inclusion questionnaire, the attitudes solely towards students with SEN were referred to, teachers' student-specific attitudes were also assessed towards all of their students, regardless of whether they were diagnosed or not diagnosed with SEN. It might also be an indicator of a huge gap between teachers' philosophical attitudes towards inclusion and their practical attitudes towards their real students. Previous literature already suggests that the former is rather positive, while the latter indicates much more concerns (see, e.g. Avramidis and Norwich 2002).

Conclusion

Previous literature (especially quantitative one) on teachers' attitudes towards students tends rather to use fictive scenarios (e.g. case vignette of fictive students) or to assess

attitudes in a more general way (e.g. towards students with SEN or disabilities). Inter-individual differences in teachers' attitudes towards real students in class have not been taken into account. This is especially surprising as recent definitions of inclusive education avoid the use of categories and focus instead on the fact that each student is individual.

Moreover, students of a group (e.g. students with learning disabilities) are very heterogeneous. In addition to the individual student-centred perspective, the relationship between a teacher and a student may be very different from the relationship of another teacher to the same student. For example, one teacher might think Kevin's behaviour is unacceptable and therefore have a rather negative attitude towards Kevin. Another teacher might experience the same behaviour as easy. It might even remind him/her of his/her own behaviour at school and he/she knows how to deal with it.

Therefore, in this study, following the approach of dyadic self-efficacy beliefs of Zee et al. (2016) and Zee, de Jong, and Koomen (2016), it was assumed that assessing teachers' attitudes towards all of their (real) students increases external validity of research in the field of teachers attitudes. As the first step, high student-specific variance of teachers towards their students in class was uncovered. This acted as a first indicator that a student-specific assessment approach is useful not only for teachers' self-efficacy beliefs but also for teachers' attitudes. However, further research would need to follow this new approach and explore it in more detail. In view of the results of the present study, the findings of previous studies and their interpretation can be questioned. Is it permissible to ignore student-specific variance in teachers' attitudes? Or might be the student-specific part of attitudes something that needs to be additionally considered as one part of teachers' attitudes? How can teachers' attitudes be changed if they are negative? If the attitudes are rather student-specific then intervention programmes would need to take an in-depth look into the specific situation, which requires (real) case-sensitive supervision rather than theoretical programmes that should fit for all.

Notes

1. Inclusive classes indicate that students with and without a labelled SEN are educated together. In all of these classes, an additional SEN-teacher teaches together with the class teacher.
2. In this context, class teachers teach all students in mainstream education. They, e.g. do not have a specific contract or specialization for teaching students labelled as having SEN.
3. One major limitation of the current study is the small sample size at the teacher level. This implies that the possibility of reaching significance on teacher level was low.

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Appendix: Student-specific attitudes scale

Items	Not true at all	Somehow not True	Somehow true	Exactly
Item 1	'I think that this child feels alone and isolated in this class'*			
Item 2	'I think that this child is developing a positive self-concept in this class'			
Item 3	'I think that this child is developing weaker self-confidence in this class'*			
Item 4	'I think that this child's achievement motivation increased through comparison with his classmates'			
Item 5	'I think that the teaching quality in this class is very good for this child'			
Item 6	'I think that this child learns a lot in this class'			

*Negatively phrased item.