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# Teachers' role model behavior and the quality of the student–teacher relationship as prerequisites for students' attitudes toward peers with learning difficulties

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**Introduction:** The introduction of inclusive education in primary schools has raised many questions about the impact of teachers' role model behavior on the social participation of students with learning difficulties. Based on the "theory of social referencing," this study examines whether students' attitudes toward peers with learning difficulties are predicted by perceptions of their teachers' role model behavior and the quality of the student–teacher relationship in the classroom.

**Methods:** A questionnaire was completed by  $N = 753$  primary school students regarding their perceptions of the student–teacher relationship, their attitudes toward peers with learning difficulties, and their perceptions of teacher behavior toward students with learning difficulties.

**Results:** The results of a structural equation model indicate that students' attitudes toward peers with learning difficulties can be explained significantly by their perceptions of teacher behavior and their perceptions of the quality of the student–teacher relationship in the classroom. The effect of students' perceptions of teacher behavior on their attitudes toward peers with learning difficulties is mediated by their perceptions of the student–teacher relationship. Thus, students focus more on teacher behavior when they perceive a positive student–teacher relationship.

**Discussion:** Our findings emphasize the importance of teachers' role model behavior in inclusive classrooms and offer opportunities to enhance the social participation of students with learning difficulties in inclusive primary school education.

## KEYWORDS

learning difficulties, attitudes, inclusive education, social participation, social referencing, student–teacher relationship, primary school education

## 1 Introduction

Since the ratification of the Convention on the Rights of Persons with Disabilities (CRPD) by [United Nations \(2006\)](https://www.un.org/en/conventions/treaties/08), there have been questions at all levels of the education system about the successful organization and implementation of inclusive education. The main question that needs to be answered is how to ensure the social participation of all students in inclusive education to improve their academic and social development. Empirical studies have shown that successful inclusive education is significantly affected by students' participation in social activities both inside and outside the classroom (e.g., [Schwab, 2019](#)). [Koster et al. \(2009\)](#)

identified four aspects that characterize students' social participation in inclusive education. These include (1) the quantity and quality of friendships and relationships, (2) positive contacts and social interactions between students with and without difficulties, (3) positive self-perceptions of students with difficulties in the classroom, and (4) the acceptance of students with difficulties by their peers (p. 134). Students with learning difficulties often experience marginalization and low acceptance in inclusive education from their peers, which can lead to limited social interactions, friendships, and social exclusion (Schwab, 2017; Avramidis et al., 2018). Learning difficulties are present when a student consistently performs below the minimum standards of primary school in writing, reading, and arithmetic, without an impairment to their cognitive abilities (Gold, 2018, p. 12). Learning disabilities occur when students demonstrate poor academic performance in conjunction with significantly reduced cognitive abilities. In terms of inclusion, Gold (2018) recommends using the term 'learning difficulties' in a general sense, as only a small group of students have learning difficulties and low intelligence. For most children, their learning difficulties are not aligned with their intelligence. Research suggests that it is not enough to simply educate students with and without learning difficulties in the same classroom. Instead, appropriate learning conditions should be created to support students' academic and social development, enabling them to live and learn together with their peers and to be equal members of their social groups (Garotte et al., 2017). Students' attitudes toward peers with difficulties, as the main indicator of social acceptance, have been identified as a key starting point to improve the social participation of students with learning difficulties in inclusive education and to prevent them from social exclusion (de Boer et al., 2014). In recent years, extensive research has been conducted on the formation of students' attitudes toward peers with learning difficulties. Although empirical research provides evidence for the importance of individual factors, such as students' contact experiences with peers with difficulties (Schwab, 2017; Rademaker et al., 2020), and extra-institutional factors, such as parents' attitudes toward people with difficulties as role models (de Boer et al., 2012), for primary school students' attitudes toward peers with learning difficulties, there is currently little evidence for the importance of institutional factors, such as students' perceptions of teacher behavior toward students with learning difficulties or their perceptions of the student-teacher relationship in the classroom (Van der Sande et al., 2018). Therefore, the aim of our study is to investigate whether primary school students' attitudes toward peers with learning difficulties can be explained by their perceptions of teacher behavior toward students with learning difficulties and their perceptions of the quality of the student-teacher relationship. Additionally, we investigated whether the effect of primary school students' perceptions of teacher behavior toward students with learning difficulties on their attitudes toward peers with learning difficulties is mediated by their perceptions of the quality of the student-teacher relationship. Thus, we investigate whether students' attitudes toward peers with learning difficulties are more orientated toward teacher behavior when they perceive a positive student-teacher relationship and vice versa. Overall, this study is a steppingstone toward a better understanding of social referencing processes and the social participation of students with learning difficulties in inclusive education.

Positive attitudes toward peers with learning difficulties are essential for the successful organization and implementation of

inclusion in primary schools, as well as for the social participation of students with learning difficulties both within and outside the inclusive classroom. Eagly and Chaiken (1993) define attitudes as "psychological tendencies that are expressed by evaluating a particular entity with some degree of favor or disfavor" (p. 1). In recent years, several empirical studies (e.g., de Boer et al., 2012; Schwab, 2015; Freer, 2021) have investigated primary school students' attitudes toward their peers with difficulties. Overall, the findings indicate that these students generally hold neutral to moderately positive attitudes toward their peers with difficulties (e.g., de Boer et al., 2012; Schwab, 2015; Freer, 2021). However, some students in these studies also expressed negative attitudes toward their peers with difficulties (de Boer et al., 2012). This may be due to various factors, as there are numerous possible influences on students' attitudes toward peers with difficulties. Research indicates a significant relationship between students' attitudes toward peers with difficulties and their gender. Thus, female students have significantly more positive attitudes toward peers with difficulties compared to male students (e.g., Barr and Bracchitta, 2012; Schwab, 2018). The nature of difficulties also has a significant impact on students' attitudes. According to Freer's (2021) literature review, students tend to have more positive attitudes toward peers with visible difficulties, such as physical difficulties, than toward those with less visible difficulties, such as learning or intellectual difficulties. Thus, students with learning difficulties may have a lower social status within their class (Van der Sande et al., 2018) and may be rejected by their peer group more often than students without difficulties or with more obvious difficulties (Huber and Wilbert, 2012). Little research currently exists on institutional determinants that might explain primary school students' attitudes toward their peers with learning difficulties. Empirical studies suggest that teachers, as students' primary caregivers and behavioral role models in inclusive education, significantly influence students' attitudes toward peers with learning difficulties (Wentzel, 2010).

Children spend a significant amount of their time at school, making it a crucial environment for their social activities. The introduction of all-day schools and afternoon classes has further increased the time spent at school. During the school day, teachers play an important role as primary caregivers, main contacts, and role models for their students (Wentzel, 2010). It can be reasonably assumed that teachers have a significant impact not only on their students' academic performance and education but also on their personal and social development. Therefore, students often adapt the behavior, opinions, and attitudes of their teachers, which can even extend to adopting their teachers' likes or dislikes of other students. This can have long-lasting effects on students' interactions with their peers in the classroom (Hendrickx et al., 2017). This phenomenon is referred to as "social referencing" (Feinman, 1992). Feinman demonstrated that infants imitate the behavior of their primary caregivers (e.g., gestures, facial expressions). This adaptation of parental behavior is particularly noticeable in unfamiliar situations or when the infant's behavioral skills are insufficient to meet the specific demands of the situation. However, children do not only adopt the behavior of their primary caregivers through observation. Verbal instruction or feedback can also convey behavioral intentions or specific behavior. Children's selection of social referents is not random, but highly selective. They

tend to choose role models whom they trust and value (Feinman, 1982). Research on social referencing processes has increased steadily in recent years. The processes described between caregivers and child have also been empirically identified in relation to student–teacher interactions (Webster and Foschi, 1992). However, there is currently limited empirical evidence to suggest that teachers’ role model behavior has a significant effect on primary school students’ social acceptance of classmates with learning difficulties (McAuliffe et al., 2009; Hughes et al., 2014; Hendrickx et al., 2017; Van der Sande et al., 2018). Van der Sande et al. (2018) found a significant relationship between students’ perceptions of their teachers’ attitudes toward peers with learning difficulties and the social status of those students in the classroom. Similarly, Hendrickx et al. (2017) demonstrated the importance of teachers as social referents for their students. The study revealed that negative behavior from teachers toward students has a lasting impact on the social acceptance of those students by their peers. Thus, if a teacher dislikes a student, it is likely that this student is also disliked by the peers. Finally, Hughes et al. (2014) found that in classes where student–teacher interactions are highly concentrated on a few low-achieving students, classmates tend to dislike these students even more than in classes where teacher support and student–teacher relationships are more evenly distributed across all students. Overall, it is mostly unclear whether the impact of teacher behavior on primary school students’ attitudes toward peers with learning difficulties is influenced by the quality of the student–teacher relationship in the classroom. Following Feinman’s (1982) research, it can be assumed that the impact of teachers’ role model behavior in interactions with students with learning difficulties on students’ attitudes toward peers with learning difficulties will vary depending on students’ perceptions of the quality of the student–teacher relationship. Thus, primary school students who perceive a positive student–teacher relationship tend to orient their attitudes more toward their teachers’ behavior. Conversely, if students perceive a

negative quality of the student–teacher relationship, they do not develop their attitudes based on their teachers’ behavior toward peers with learning difficulties.

Currently, there is little empirical evidence regarding the relationship between students’ perceptions of teacher behavior toward students with learning difficulties, their perceptions of the quality of the student–teacher relationships in the classroom, and their attitudes toward peers with learning difficulties. According to the “theory of social referencing” (Feinman, 1992), teachers have a significant impact on the personal and social development of their students as primary caregivers, main contacts, and role models in the classroom. Several empirical studies (e.g., Hughes et al., 2014; Van der Sande et al., 2018) have demonstrated that teachers’ behavior (e.g., liking, or disliking of students) toward students, including those with learning difficulties, significantly impacts students’ behavior toward peers with learning difficulties and the social status of students with learning difficulties in the classroom. Moreover, it is possible to hypothesize that the effect of teacher behavior on students’ attitudes toward peers with difficulties differs depending on how students perceive the quality of the student–teacher relationship (Feinman, 1982). Based on the theoretical and empirical background presented, we make the following assumptions (Figure 1).

*Hypothesis 1 (H<sub>1</sub>):* Primary school students’ attitudes toward peers with learning difficulties can be predicted significantly by their perceptions of teacher behavior toward students with learning difficulties and the quality of the student–teacher relationship.

*Hypothesis 2 (H<sub>2</sub>):* The effect of primary school students’ perceptions of teacher behavior toward students with learning difficulties on their attitudes toward peers with learning difficulties is mediated significantly by their perceptions of the quality of the student–teacher relationship.

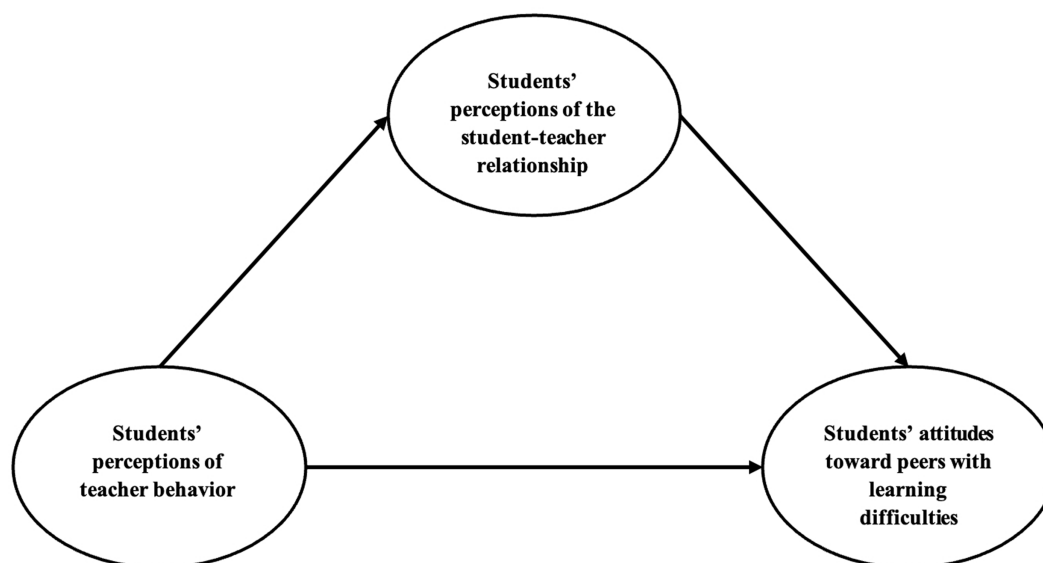


FIGURE 1  
Hypothetical structural equation model (Hypotheses H<sub>1</sub> and H<sub>2</sub>).

## 2 Methods

### 2.1 Participants

A total of  $N=753$  primary school students (358 girls and 385 boys) participated in our study. Of these, 376 students were in grade 3 and 367 students were in grade 4. Ten students did not provide information about their age, gender, or grade. The study was conducted in 48 classes from 24 primary schools in North Rhine-Westphalia, Germany. The participating students had an average age of 9 years ( $M=8.95$  years;  $SD=0.80$  years; range: 7–11 years).

### 2.2 Procedure

The paper and pencil questionnaires were completed by the students within one class period, which lasted 45 min. However, the students did not require the entire duration to answer the questions, taking an average of 20 min. Two research assistants administered the survey, with instructions provided to ensure the objectivity. Additionally, the research assistants ensured that all students comprehended the questionnaire items by reading them aloud. They also aided students who encountered difficulties in completing the questionnaire. Prior to administering the survey, written consent was obtained from the students' parents or legal guardians.

### 2.3 Measures

Primary school students completed a paper and pencil questionnaire for our study. The questionnaire provided information on their attitudes toward peers with learning difficulties, their perceptions of teacher behavior toward students with learning difficulties, and their perceptions of the student–teacher relationship in the classroom.

#### 2.3.1 Students' attitudes toward peers with learning difficulties

To evaluate primary school students' attitudes toward peers with learning difficulties, a gendered case vignette was presented: "Susanne/Markus has just moved to your town and attends your class. Susanne/Markus has serious problems with reading, writing, and math. She/He needs more time than other students of her/his age to do her/his schoolwork." This case description is adapted by [de Boer et al. \(2014\)](#). The vignette was selected for its child-friendly and 'easy-to-understand' nature, allowing students to empathize with a child with learning difficulties before answering the provided questions. After reading the case description, the students were asked to complete a ten-item version of the Chedoke-McMaster Attitudes Toward Children with Handicaps scale (CATCH; [Rosenbaum et al., 1986](#)) and relate their answers to the vignette (10 items, e.g., "I would feel good about working on a school project with Susanne/Markus.";  $M=3.98$ ;  $SD=0.78$ ;  $Min=1.00$ ;  $Max=5.00$ ;  $\alpha=0.90$ ).

#### 2.3.2 Students' perceptions of teacher behavior toward students with learning difficulties

An eight-item scale was used to assess students' perceptions of teacher behavior toward students with learning difficulties. The

scale was developed based on the CATCH scale ([Rosenbaum et al., 1986](#)): e.g., "My teacher would be pleased if Susanne/Markus attended my class.";  $M=4.34$ ;  $SD=0.67$ ;  $Min=1.00$ ;  $Max=5.00$ ;  $\alpha=0.87$ . Once again, students were asked to relate their perceptions of teacher behavior toward students with learning difficulties to the case description. Finally, we used an adapted version of the [Gehlbach et al. \(2011\)](#) scale to investigate the quality of the student–teacher relationship from the children's perspective. Therefore, we used a total of six items: e.g., "My teacher cares a lot about me.";  $M=4.34$ ;  $SD=0.77$ ;  $Min=1.33$ ;  $Max=5.00$ ;  $\alpha=0.86$ . Students rated their level of agreement on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree) for each item on the three questionnaire scales.

#### 2.3.3 Data analyses

To test our research hypotheses, we computed bivariate correlations between latent variables using SPSS 27. Additionally, a structural equation analysis was conducted using Mplus 7 ([Muthén and Muthén, 2012](#)) to examine the extent to which primary school students' attitudes toward peers with learning difficulties can be explained by their perceptions of teacher behavior in classroom interactions with students with learning difficulties and their perceptions of the quality of the student–teacher relationship. Furthermore, we examined whether the effect of primary school students' perceptions of teacher behavior in classroom interactions on their attitudes toward peers with learning difficulties is mediated by their perceptions of the student–teacher relationship. To assess the relationships between latent variables a good fit between the hypothetical and empirical measurement models is necessary. To meet this requirement, we applied cut-off criteria based on established recommendations from the statistical literature. A cut-off of  $\chi^2/df \leq 2$  was chosen ([Byrne, 1989](#)). For the "Comparative Fit Index" (CFI) and the "Tucker-Lewis Index" (TLI), the guidelines of [Hu and Bentler \(1999\)](#) were followed: CFI/TLI  $\geq 0.95$ . [Browne and Cudeck \(1993\)](#) propose the following values to assess the adequacy of the "Root Mean Square Error of Approximation" (RMSEA): good model fit ( $\leq 0.05$ ), acceptable model fit ( $\leq 0.08$ ), and unacceptable model fit ( $\geq 0.10$ ). The value for "pclose" should be  $\geq 0.50$ . Furthermore, we considered the multi-level structure of our data (cluster effect of students nested within classes) by using the "type=complex" command line in the structural equation analysis in Mplus ([Muthén and Satorra, 1995](#)). Additionally, we used maximum likelihood estimation with robust standard errors (MLR) to generate the regression parameters in our model. The MLR estimator is known to be robust to violations of normal distribution ([Muthén and Muthén, 2012](#)). Finally, we analyzed the mediation effects in our structural equation model. This requires that the (in-)dependent variable and mediator variable are significantly related to each other. Furthermore, it is required that the effect size between the independent and dependent variables decreases when the mediator variable is included in the model ([Baron and Kenny, 1986](#)). Therefore, different forms of mediation effects can be distinguished: Full mediation occurs when there is a significant relationship between the (in-)dependent and mediator variables, but the independent and dependent variables remain unrelated. Partial mediation occurs when there is also a significant relationship between the independent and dependent variables ([Little et al., 2007](#)).

### 3 Results

Table 1 presents the descriptive results of students' responses to the questionnaire items. The primary school students involved in our research have positive attitudes toward their peers with learning difficulties, with only minor deviations in their response behavior ( $M = 3.98$ ;  $SD = 0.78$ ). Furthermore, students who participated in the study reported a positive perception of their teachers' behavior toward students with learning difficulties in the classroom ( $M = 4.34$ ;

$SD = 0.67$ ) and a positive relationship with their teachers ( $M = 4.34$ ;  $SD = 0.77$ ). The students' responses showed only slight variations in both cases.

The intercorrelations between the latent variables can be found in Table 2. Overall, we found low to moderate but highly significant ( $p \leq 0.001$ ) bivariate correlations between the variables.

Figure 2 presents the results of the structural equation model with standardized estimates. Our analysis indicates a reasonable fit between the theoretical and the empirical model: the value of 1.98 for  $\chi^2/df$

TABLE 1 Descriptive results.

Variable	Items	M	SD	Min	Max	$\alpha$
Students' attitudes toward peers with learning difficulties <sup>a</sup>	10	3.98	0.78	1.00	5.00	0.90
Students' perceptions of teacher behavior <sup>a</sup>	8	4.34	0.67	1.00	5.00	0.87
Students' perceptions of the student-teacher relationship <sup>a</sup>	6	4.34	0.77	1.33	5.00	0.86

<sup>a</sup>1 = strongly disagree, 2 = partly disagree, 3 = undecided, 4 = partly agree, 5 = strongly agree.

TABLE 2 Intercorrelations between latent variables.

Variable	(2)	(3)
(1) Students' attitudes toward peers with learning difficulties	0.39***	0.25***
(2) Students' perceptions of teacher behavior	-	0.36***
(3) Students' perceptions of the student-teacher relationship	-	-

N = 750 (listwise deletion); \*\*\* $p \leq 0.001$ .

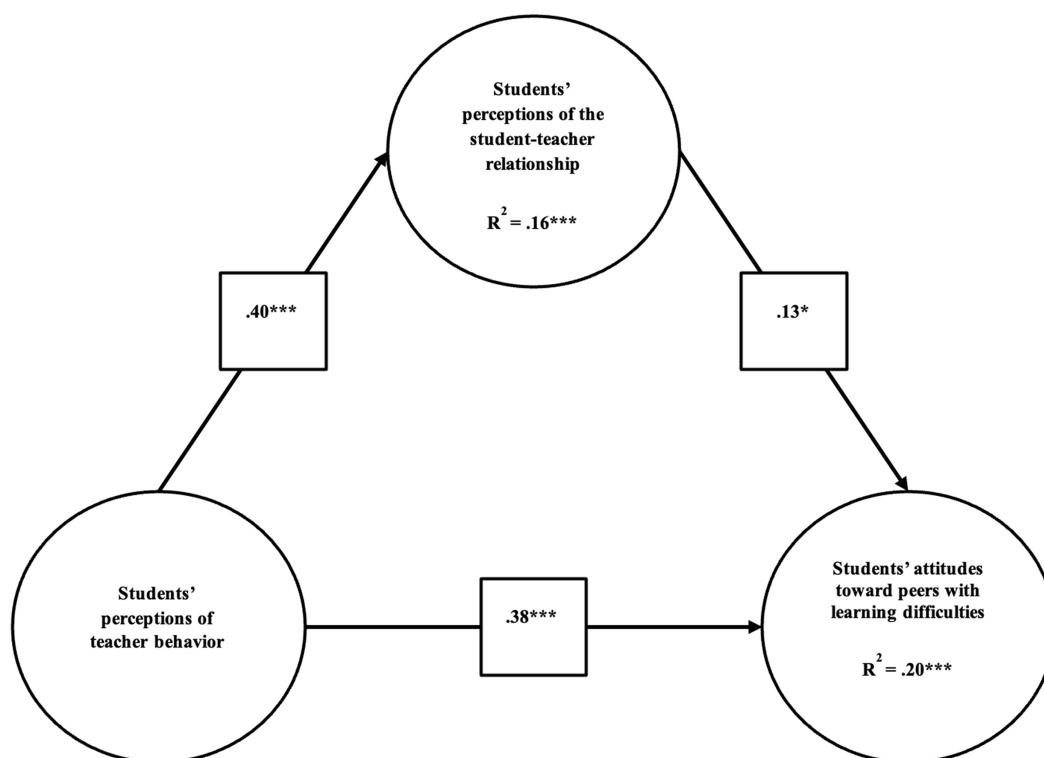


FIGURE 2 Results of the structural equation model (with mediation analysis). \*\*\* $p \leq 0.001$ ; \* $p \leq 0.05$ ; Model-fits:  $\chi^2 = 492.56$ ;  $p \leq 0.001$ ;  $df = 249$ ; CFI = 0.96; TLI = 0.95; RMSEA = 0.04 ( $CI = 0.03-0.04$ );  $pclose = 1.00$ ; Mediation analysis: Total effect:  $\beta = 0.43***$ ; Indirect effect:  $\beta = 0.05^*$ .

( $\chi^2 = 492.56$ ;  $p \leq 0.001$ ;  $df = 249$ ) is below the proposed limit of 2.00 (Byrne, 1989). Furthermore,  $CFI = 0.96$  and  $TLI = 0.95$  meet or exceed the cut-off of  $\geq 0.95$  suggested by Hu and Bentler (1999). Finally, the structural equation model indicates a good fit based on the estimated  $RMSEA = 0.04$  ( $CI [0.03-0.04]$ ;  $pclose = 1.00$ ; Browne and Cudeck, 1993). The empirical investigation supports hypothesis 1 ( $H_1$ ) by demonstrating that primary school students' attitudes toward peers with learning difficulties are significantly affected by their perceptions of teacher behavior when interacting with students with learning difficulties in the classroom ( $\beta = 0.38$ ;  $p \leq 0.001$ ) and their perceptions of the student–teacher relationship ( $\beta = 0.13$ ;  $p \leq 0.05$ ). In summary, 20% of the variance in students' attitudes toward peers with learning difficulties can be explained by their perceived teacher behavior and their perceptions of the student–teacher relationship in the classroom. Students' perception of teacher behavior is also a significant predictor of their perceptions of the quality of the student–teacher relationship in the classroom ( $\beta = 0.40$ ;  $p \leq 0.001$ ), which accounts for 16% of the variance. Supporting hypothesis 2 ( $H_2$ ), the effect of students' perceptions of teacher behavior when interacting with students with learning difficulties on their attitudes toward peers with learning difficulties is partially mediated by their perceptions of the quality of the student–teacher relationship in the classroom ( $\beta = 0.05$ ;  $p \leq 0.05$ ).

## 4 Discussion and conclusion

The study aimed to investigate whether primary school students' attitudes toward peers with learning difficulties are related to their perceptions of teacher behavior and their perceptions of the student–teacher relationship. Based on Feinman's (1982, 1992) “theory of social referencing,” we hypothesized that students' attitudes toward peers with learning difficulties could be predicted by their teachers' role model behavior and the quality of the student–teacher relationship in the classroom, and that the effect of students' perceptions of teacher behavior toward students with learning difficulties on primary school students' attitudes would be mediated by students' perceptions of the student–teacher relationship. Thus, this study aimed to clarify whether the effect of teacher behavior on students' attitudes toward peers with learning difficulties varies based on students' perceptions of the quality of the student–teacher relationship. Primary school students are likely to orient their attitudes toward peers with learning difficulties on their teachers' behavior if they perceive a positive student–teacher relationship. Feinman (1982) emphasized that children primarily choose role models whom they trust and highly value. The results suggest that students' attitudes toward their peers with learning difficulties can be explained significantly by their perceptions of teacher behavior when interacting with students with learning difficulties and their perceptions of the quality of the student–teacher relationship in the classroom. This confirms our first research hypothesis  $H_1$ . In line with the social referencing theory (Feinman, 1992) and empirical findings from previous research (e.g., McAuliffe et al., 2009; Hughes et al., 2014; Hendrickx et al., 2017; Van der Sande et al., 2018), our findings highlight the importance of teachers' role model behavior for primary school students' social acceptance of peers with learning difficulties. However, the results of the structural equation model indicate that only 20% of the variance in students' attitudes toward peers with learning difficulties can be explained by their perceived teacher behavior and their perceptions of the student–teacher relationship in

the classroom. To explain more variance in students' attitudes toward peers with learning difficulties, future research should consider additional determinants, such as parental role model behavior or classroom climate. The results of our research also indicate that the relationship between students' perceived teacher behavior and their attitudes toward peers with learning difficulties is significantly mediated by their perceptions of the quality of the student–teacher relationship. Research hypothesis  $H_2$  is supported, which is consistent with Feinman's (1982) social referencing theory. Therefore, primary school students orient their attitudes toward their teachers' behavior to a greater extent when they perceive a positive student–teacher relationship and vice versa. Our findings emphasize the importance of the student–teacher relationship in the success of social referencing processes and the inclusion of students with learning difficulties. Further research should investigate the cause-and-effect mechanisms of the variables considered in longitudinal studies. Certainly, this is a limitation of our cross-sectional study that must be considered when interpreting the results. The findings only provide information on correlations between students' attitudes toward peers with learning difficulties, their perceived teacher behavior, and their perceptions of the quality of the student–teacher relationship. Another limitation concerns the methodological approach. The measurement instruments used in our study were adopted from existing studies. However, the internal validity of the questionnaire scales is not currently available. This is certainly an important area for future research. It is also important to note that the assessment only considered teacher behavior toward students with learning difficulties and perceptions of the quality of the student–teacher relationship from students' perspective. As a result, the research findings may be subjective and one-sided. To obtain a more accurate understanding of social interaction processes in the classroom, it is also essential to evaluate teachers' perceptions of student–teacher relationships and to observe their behavior toward students with learning difficulties in inclusive education. In further studies, classroom observations can offer valuable insights into social interactions in the classroom, as they prevent bias resulting from memory issues. Another way to capture students' and teachers' current perceptions of social interaction processes in class is by using the ‘experience sampling method.’ This method entails sending messages to students and teachers at specific times during the school day, such as during recess or group work phases, requesting them to report on their current well-being in social interactions. According to recent studies, the experience sampling method is a “favorable technique to investigate (complex) social phenomena within the daily lives of educational actors (the students, the teachers, the staff)” (Mölsa et al., 2022, p. 3). Finally, future research should consider student characteristics such as gender and academic performance, as these factors can significantly impact their attitudes toward peers with learning difficulties and their perceptions of social interaction processes in the inclusive classroom. Several studies (e.g., De Minzi, 2013; Freer, 2021) have found that female students exhibit greater empathy and more positive attitudes toward peers with difficulties, leading to more favorable social interactions with them, than male students. According to the “homophily theory” (McPherson et al., 2001), students tend to form social relationships and interactions with those who are similar to them rather than different. Therefore, students with lower grades may identify more with the children with learning difficulties presented in the case description than students with higher grades. This may result in more positive attitudes and behaviors of students with lower grades toward peers with learning difficulties due to a better understanding of

their challenging situation. Overall, the results emphasize the importance of primary school students' perceptions of the quality of the student–teacher relationship in social referencing processes for the social participation of students with learning difficulties in the inclusive classroom. According to Feinman's (1992) theory of social referencing, students are more likely to adopt their teachers' attitudes, opinions, and behaviors if they perceive a positive relationship with them, as opposed to those who perceive a negative student–teacher relationship. Regarding implications for school practice, it is important for teachers to be aware that their behavior toward students with learning difficulties can significantly influence their students' attitudes toward peers with learning difficulties. However, recent studies suggest that teachers often feel unprepared to address student heterogeneity in inclusive education and require additional training (Pozas and Letzel, 2020). To promote in-service teachers' attitudes, perceptions, knowledge, strategies, and skills for dealing with students with difficulties in inclusive classrooms, continuous workshops on inclusive education have been identified as an effective approach (Tristani and Bassett-Gunter, 2019). Crispel and Kasperski (2021) found that training mainstream teachers in special education, specifically improving their knowledge about learning difficulties, resulted in a more sensitive, caring, and understanding approach toward students with learning difficulties. Consequently, teachers demonstrated greater empathy for children with learning difficulties in regular classes, leading to the creation of more protective environments for these students. This way, teachers who demonstrate empathy and compassion can serve as role models for all students in inclusive education as these are fundamental skills for positive social interactions and friendships. Therefore, it is recommended that training in special education should be implemented early in the professional development of prospective mainstream teachers. This will prepare them to educate students with learning difficulties, ensure their social and academic participation, and overcome social exclusion of students with learning difficulties in inclusive education.

## Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

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## Ethics statement

The studies involving humans were approved by Ethics Committee of the Paderborn University. The studies were conducted in accordance with the local legislation and institutional requirements. Written informed consent for participation in this study was provided by the participants' legal guardians/next of kin.

## Author contributions

ML: Conceptualization, Funding acquisition, Writing – original draft, Writing – review & editing. FH: Writing – original draft, Writing – review & editing.

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## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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