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## Exploring Attitudes towards Disability Representation in Primary School Textbooks: Insights from Italian Teachers

### Esplorare gli atteggiamenti verso la rappresentazione della disabilità nei libri di testo della scuola primaria: Gli “insights” da parte degli insegnanti italiani

**Fuori Call**

In the field of education, teachers' attitudes and beliefs regarding the portrayal of disability in instructional materials, such as textbooks, play a crucial role in shaping their educational practices. These attitudes are influenced by various factors, such as teaching experience and professional roles. In this study, we developed a 13-item questionnaire to assess the attitudes of 304 primary in-service school teachers from Italian public schools towards the representation of disability in textbooks. The findings of our study revealed that teachers with more teaching experience and special needs teachers held more favorable attitudes towards the representation of disability in textbooks. This highlights the significance of promoting special education skills, valuing the educational and training aspect of textbooks, and fostering positive collaboration among colleagues, as these factors can positively influence teachers' attitudes towards the inclusion of disability representation in instructional materials. The study underscores the importance of examining teachers' attitudes towards the portrayal of disability in instructional materials, as these attitudes can significantly shape educational practices and contribute to creating an inclusive culture in schools.

**Keywords:** School Textbook; Teachers' Attitudes; Representation; Disability; Primary School.

Nel campo dell'istruzione, gli atteggiamenti e le convinzioni degli insegnanti riguardo alla rappresentazione della disabilità nei materiali didattici, come i libri di testo, svolgono un ruolo cruciale nel plasmare le loro pratiche educative. Questi atteggiamenti sono influenzati da vari fattori, come l'esperienza di insegnamento e il ruolo professionale. In questo studio abbiamo sviluppato un questionario di 13 item per valutare gli atteggiamenti di 304 insegnanti di scuola primaria in servizio nelle scuole pubbliche italiane nei confronti della rappresentazione della disabilità nei libri di testo. I risultati del nostro studio hanno rivelato che gli insegnanti con maggiore esperienza di insegnamento e quelli con bisogni speciali hanno atteggiamenti più favorevoli nei confronti della rappresentazione della disabilità nei libri di testo. Ciò evidenzia l'importanza di promuovere le competenze in materia di educazione speciale, di valorizzare l'aspetto educativo e formativo dei libri di testo e di promuovere una collaborazione positiva tra colleghi, in quanto questi fattori possono influenzare positivamente l'atteggiamento degli insegnanti nei confronti dell'inclusione della rappresentazione della disabilità nei materiali didattici. Lo studio sottolinea l'importanza di esaminare gli atteggiamenti degli insegnanti nei confronti della rappresentazione della disabilità nei materiali didattici, poiché questi atteggiamenti possono plasmare in modo significativo le pratiche educative e contribuire a creare una cultura inclusiva nelle scuole.

**Parole chiave:** Libro di testo scolastico; atteggiamenti degli insegnanti; rappresentazione; disabilità; scuola primaria.

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## Introduction

The study of social representations (Hewstone, 1984; Moscovici, 1989) is fundamental to understanding the degree of inclusion of social groups within a social context. Disability Studies (Barnes, 1991; Brisenden, 1989; Finkelstein, 2004; Michalko, 2002; Morris, 1991; Oliver, 1990) have highlighted a scarcity of representation of disability in the frame of social imagery.

The mental images society holds about a group can shape how people behave toward its members and what policies are seen as appropriate or necessary. People tend to internalize the social representations they are exposed to, absorbing both negative and positive views of a given human condition. Social representations—in the media, in culture, and in everyday language—highlight the visibility of a group and the way it is perceived and valued. Even when a group is physically present, it may not be symbolically included.

The absence or scarcity of people with disability in textbooks contributes to accentuate the predominance of non-disabled people (Hodkinson, 2007), including in shared discourse, traditions, and literature (Foster, 1999; Grandi, 2012).

This limitation in representation also extends to the school environment, as schools are situated within specific sociocultural contexts. An inclusive school is distinguished by the physical presence of students with diverse abilities and bodies, and by teachers' inclusive lesson planning (Ianes, 2005; Pavone, 2010). Moreover, the school serves as a social context where different cultural models interact and where students shape their identities (Pontecorvo, 2013). This is consistent with the broader perspective that fostering equity and inclusion should constitute a systemic focus within schools (Pasqualotto & Mainardi, 2024), with textbooks playing an important role in this process.

Within the school context, discourses are expressed and conveyed through language, which can be considered a cultural product (Hall, 1992).

While some studies indicate that teachers' discourse on disability may at times reflect categorizing tendencies (Medeghini, 2008; Vadalà, 2011), such dynamics should be interpreted with caution, as they are embedded within a broader and more complex sociocultural context. Within the Foucauldian framework, disability can be understood as a discursive construct: what a society defines as disability depends on the systems of knowledge and power in place (such as school). In this light, as Medeghini (2013) argues, it is essential for teachers to engage critically with diverse models of representation, in order to prevent the symbolic exclusion of specific social groups and to foster more inclusive educational practices.

The inclusive perspective is closely connected to the interaction between teachers and students (Ianes, 2016; Vianello & Di Nuovo, 2015), which is constantly mediated by the tools utilized for knowledge transmission, such as textbooks, as well as facilitators like images and narratives.

The school textbook serves as one of the primary channels through which students encounter social imagery. It is regarded as a social construct (Crawford, 2004) and a social tool (Stray, 1994) in which every identity should be recognized (HSRC, 2005). In the 1970s, Italian authors sparked a significant debate (e.g., Eco, 1972; Cavallini et al., 1976) regarding the socio-cultural aspects of school textbooks, criticizing how their content was heavily influenced by a specific dominant culture. The representation of identities within the textbooks was deemed inadequate (Eco, 1972), lacking a proper and comprehensive multicultural perspective. The textbooks were viewed as tools that reinforced a unidimensional culture (Cavallini et al., 1976).

This incomplete representation (Gianini Belotti, 1973) turns the textbook into a tool that can reinforce the power hierarchy within society in the minds of students. During the same period, studies were conducted on the desirable characteristics that a textbook should possess in order to be considered an effective tool for promoting cultural education (Spini, 1971). However, several years later, Franci (2011) discovered that Italian school textbooks still depicted a specific social reality that inevitably influenced students.

The sociocultural approach (Horsley, 2001; Horsley & Walker, 2005; Lambert, 2002; Reichenberg, 2017) analyzes the textbook as a cultural artifact (Apple & Christian-Smith, 1991; Provenzo et al., 2011) that



contains a specific social and cultural representation within it. Recently, Deckman et al. (2018) have clearly demonstrated that the majority of textbooks overlook or marginalize the experiences of people of color, women, the underprivileged, and individuals with disabilities. This highlights the predominance of white and heterosexual individuals, with stories about disability culture being practically absent (Rosenau, 2000). Other studies examining the representation of individuals with physical disabilities in physical education textbooks have revealed a lack of visibility of disabled bodies in sports contexts (González-Palomares & Rey-Cao, 2020; Martínez-Bello et al., 2021; Táboas-Pais & Rey-Cao, 2012; Vidal-Albelda & Martínez-Bello, 2017), thus reinforcing the dominance of ableist culture.

International research has extensively examined the use of materials and textbooks in teaching practices (Clonts, 2014; Fan, Zhu, & Miao, 2013; Haggarty & Pepin, 2002). In contrast, only a few studies in Italy have specifically explored teachers' reflections on the materials they use (Corrà, 2018; De Renzo & Piemontese, 2017). The limited research on school textbooks and their representation in Italy has primarily focused on gender representation, highlighting the persistent presence of sexism (Biemmi, 2010; Gallino, 1973; Pace, 1986). More recently, Socio-Cultural Disability Studies (Davis, 1995; Garland-Thomson, 1997; Michalko, 2002; Mitchell & Snyder, 1997) have focused on analyzing the construction of culture and social imagery surrounding disability. The level of representation within textbooks has been linked to instances of micro-exclusion within the school context (Shakespeare, 2017).

According to this perspective, the school textbook is viewed as a tool that has the potential to either promote inclusion or perpetuate inequality (Ninnes, 2002) based on its level of inclusive representation (Jensen et al., 2021; Hodkinson, 2016a). A unidimensional perspective can turn the school textbook into a disabling agent (Goodley, 2013; Meekosha & Shuttleworth, 2009; Reichenberg, 2017; Shildrick, 2012). European research, although limited, has examined the quantitative analysis of images depicting physical disability (Hodkinson, 2007; Hodkinson et al., 2016b) within textbooks. These studies have revealed a cultural predominance of the experiences of individuals without disabilities, indicating a cross-cultural trend related to the hierarchical representation of societies.

Teachers, as conveyors of specific social representations and cultural norms surrounding disability, hold the power to shape students' perspectives and foster an inclusive culture (Davis & Layton, 2011; Forlin & Chambers, 2011; Pinnelli & Fiorucci, 2019). Conversely, they also have the potential to impede inclusive processes (Darrow, 2009).

Previous studies on teachers' attitudes towards disability have revealed a correlation between their attitudes and two key variables: the respondent's professional role (Jobe et al., 1996) and their years of teaching experience (Cornoldi et al., 1998; Forlin, 2012). These findings suggest that teachers who have undergone specific training in inclusion and special pedagogy tend to hold more positive attitudes towards disability and inclusion (Freytag, 2001; Cornoldi et al., 2018), especially when inclusive practices are promoted (Camedda & Santi, 2016; Mura, 2014).

The role that teachers play within the classroom has a significant impact on their attitudes as well. Research has shown that special education teachers tend to have more positive attitudes towards disability and inclusion compared to other teachers (Jobe et al., 1996). Contact experiences with individuals with disabilities (Burke & Sutherland, 2004; Vianello & Moalli, 2001; Zambelli & Bonni, 2004) and collaboration between colleagues can also positively impact teachers' attitudes by promoting classroom-situated relational reciprocity (Janney & Snell, 1996; Voltz et al., 2001).

To the best of our knowledge, there are no studies that focus specifically on the analysis of teachers' attitudes towards the representation of disability in textbooks. Studies on attitudes towards disability tend to focus on teachers' mental representations or their social representations. It appears interesting to investigate teachers' attitudes towards the representation of disability within the school textbook. This approach has the advantage of considering the representation within the textbooks that teachers use on a daily basis in their educational practice. The purpose of this study is to examine whether there are similar correlations between teachers' attitudes towards disability and their attitudes towards the representation of disability within textbooks.

In conclusion, we aspire that our research approach will facilitate a new perspective in examining



teachers' representations, stereotypes, perceptions, and attitudes, beginning with their daily practices and educational tools.

### ***Aims***

The main purpose of this study is to investigate Italian primary school teachers' attitudes toward representation of disability within the school textbook. Indeed, inclusion is closely connected to the interactions between teachers and students, which are mediated by the educational and didactic materials.

According to this aim, the study addresses the following questions below:

To what extent do teachers' perceptions of disability representation vary according to factors such as years of service and professional role?

Can demographic variables and specific questionnaire items—particularly those concerning the type of training received—serve as predictors of teachers' attitudes toward how disability is portrayed in educational contexts

As a result of this research, it is hoped that the key factors related to enhancing positive attitudes towards inclusive materials within textbooks will be better understood, thereby helping to develop effective training programs for new teacher candidates.

## **Method**

### ***Procedures***

The current study focused on the second part of a sequential mixed-methods research design (Creswell, 2003, 2007) that qualitatively examined teachers' attitudes towards the use of inclusive materials in textbooks (Filosofi & Venuti, 2019).

The survey was advertised using several social media (e.g., teachers-related Facebook groups). Moreover, potential participants were contacted either directly or via email to see if they would be interested in responding to the anonymous questionnaire. The study was carried out in agreement with the principles of the Helsinki declaration. The aims and nature of the study and the confidentiality of the data were explained to the participants: we explained that the personal background information was collected to better describe the sample, but anonymity of the participants' responses was always guaranteed. In addition, it was made clear that participation was voluntary, and the teachers had the right to withdraw from the study at any time.

### ***Questionnaire***

The questionnaire was structured from data that emerged in a previous qualitative phase (Filosofi & Venuti, 2019). Indeed, the semi-structured interviews conducted during the qualitative part of the study provided an opportunity for exploration of a topic that – as of today – has received scarce attention in the Italian and international contexts, from the perspective of teachers' thoughts and perceptions. Qualitative findings revealed the following constructs: the presence or absence of images and texts, the reasons for their absence/scarcity, the effects on inclusion, the textbook representation, the limits and exclusions of the representation, adaptation of materials, and the role of a single textbook versus multiple books. These categories were used in the design of the current questionnaire. We chose a survey approach in the current quantitative phase, as the data collected from a sample of entities enables us to construct quantitative descriptions of the larger samples (Groves et al., 2004). It should be noted that an adaptation of this questionnaire was also used in another study (Filosofi et al., 2023) in which we collected preliminary data coming from different educational and cultural contexts (i.e., USA, Brazil, and Italy); thus, a small subset of this data was already analyzed as part of a cross-cultural study and compared with those of other countries. Crucially, in our study, the questionnaire was specifically tailored to the Italian context (Filosofi, Pasqualotto, Venuti, 2022, for the first Italian version of the questionnaire). To be noted that only in the final version of the questionnaire – presented in this study – we have included several variables



related to teachers' characteristics (e.g., years of experience, co-teaching, and special educational needs training). In the current study the relation between these and teachers' attitudes towards disability representation in school textbook was investigated in detail.

The first version of the questionnaire was completed by 17 teachers to pilot the instrument and identify any critical issues in the framing of the questions. The first author then discussed with the participants the expository clarity of the items and the terminologies used: after such comparisons, some items were slightly modified to enhance clarity.

The final version of the scale included 13 items (see Table 1 for a presentation), including one preliminary question regarding the perceived utility of using materials representing disabilities to promote inclusion (Item 0), followed by twelve questions distributed across five major areas. All the items presented 6 response anchors, ranging from "strongly disagree" to "strongly agree". Half of the questionnaire consisted of negatively phrased items, and these six items required the use of reverse scoring in analysis. In this way, throughout the entire scale, higher scores always indicated more positive attitudes from the respondents.

### ***Participants***

The data was obtained from 304 primary in-service school teachers working in Italian public schools. The schools were located in several regions in the North (i.e., Trentino-Alto Adige and Emilia-Romagna) and Middle (i.e., Lazio) of Italy. Sixteen (5.3%) participants were male, 287 (94.4%) were female, and only one of them (0.3%) did not mention their gender.

The teachers were between the ages of 20 and 70, and the most common age range was 36-50 years old (54.9% of respondents) ( $n=71$  (24.4%) 20-35;  $n=167$  (54.9%) 36-50;  $n=65$  (21.4%) 51-65;  $n=1$  (0.3%) >65 years old); 55.3% of the respondents declared more than 15 years teaching experience ( $n=168$ ). Furthermore, 134 (44.1%) of the participants mentioned that they have a specialization for students with special needs and 125 (41.1%) actually work as a special needs teacher.

## **Results**

The data analysis was conducted using the SPSS software (IBM Corp. Released 2013. IBM SPSS Statistics for Mac, Version 26.0. Armonk, NY: IBM Corps.). First, the factorial structure of the items was analyzed using Principal Component Analysis (PCA). Second, group differences due to teaching experience and professional role were assessed by means of multivariate analysis of the variance (MANOVA). As dependent variables, the components from the previous step of analysis PCA were used. Finally, a two-steps, fixed entry, regression analysis was conducted to test how the two different demographic variables as well as the components that emerged from PCA jointly predict teachers' attitudes toward the utility of using inclusive materials (both images and texts).



Item	Questionnaire items	Mean	SD
0	Stories featuring children with special needs in the school textbook or instructional materials can favor inclusion.	5.05	1.21
1	I think that school textbooks and instructional materials are useful didactic tools for the teachers	4.07	1.27
2	I think that school textbooks and instructional materials are useful didactic tools for the students	3.97	1.31
3	I think that school textbooks and instructional materials are useful educational tools for the teachers	3.16	1.39
4	I think that school textbooks and instructional materials are useful educational tools for the students	3.26	1.38
5	In general, I am satisfied with the school textbook in use	3.60	1.36
6	I think I am prepared to manage a class using a textbook or instructional materials that include individuals with		
a	Physical disabilities	4.88	1.17
b	Intellectual disabilities	4.78	1.24
c	Autism Spectrum Disorder	4.62	1.32
7	The school textbook generally represents an inclusive social reality in which students with Physical disabilities can see themselves	3.29	1.68
8	The school textbook generally represents an inclusive social reality in which students with Intellectual disabilities can see themselves	3.12	1.71
9	The presence of materials representing individuals with the disability presented below could create me some difficulties during the lessons		
a	Physical disabilities	5.40	1.10
b	Intellectual disabilities	5.33	1.18
c	Autism Spectrum Disorder	5.28	1.23
10	Some colleagues of mine would have difficulties managing the lessons using a textbook that represents an individual with disability	2.85	1.58
11	The presence of materials representing individuals with disability might create discomfort for the students during the lessons	5.05	1.12
12	If I used materials representing students with disability in the textbooks, I might have problems with some of my colleagues	4.82	1.39

**Table 1**  
Mean and Standard Deviation of the Questionnaire items on the entire sample (N= 304).

#### *Factorial structure of the questionnaire - Principal Component Analysis*

Since the quantitative phase was based on the results of the qualitative results, and thus, it was informed by the constructs that emerged from the interviews, we decided to confirm the factorial structure





of the questionnaire (see Table 1 for an overview of the items). The examination of the data indicated that most of the items had non-normal distribution, which is common for categorical data. All the items of the instrument (except for Item 0) were subjected to a principal component analysis (PCA) with Kaiser-Meyer-Olkin rotation to aid interpretability. Sampling adequacy for the analysis was verified using the Kaiser-Meyer-Olkin measure for the entire data set ( $KMO = .76$ ). In addition, Bartlett's test of sphericity [ $\chi^2(120) = 3961.074$ ,  $p < .001$ ] confirmed that data is suitable for reduction. Components loadings (i.e., the correlation coefficients between the items and the identified components) were interpreted using conservative cut-off points due to the non-normal distributions of most of the questionnaire items. Specifically, loadings greater than or equal to .45 are considered relevant, while loadings greater than or equal to .55 are good, and loadings greater than or equal to .63 are very good (Comrey & Lee, 1992).

The results of this PCA with a cut-off point of .45 and the Kaiser's criterion of eigenvalues greater than 1 (see, Field, 2013; Stevens, 2009) confirmed a five-factor solution as the best fit for the data, accounting for 79.38% of the variance (see Table 2).

These five components emerging from the analysis are:

1. School textbook value with five factors (Item 1,2,3,4,5). This component showed an eigenvalue of 4.39 and accounted for 27.42% of the variance;
2. Difficulties in managing materials representing disabilities with three factors (Items 9a, 9b, 9c). This component had an eigenvalue of 3.53 and accounted for 22.05% of the variance. One item (i.e., Item 11) was found to have loading of less than 0.45 and was then excluded from the analysis;
3. Perceived Competence in using materials that include individuals with disability with three factors (Items 6a, 6b, 6c). The eigenvalue of this component was 2.32 and accounted for 14.50% of the variance;
4. Mirroring for students with disabilities with two factors (Items 7 and 8). This component showed an eigenvalue of 1.47 and accounted for 9.21% of the variance.
5. Relationship with Colleagues with two factors (Items 10 and 12). This component showed an eigenvalue of 0.99 and accounted for 6.20% of the variance.



*Categorical PCA pattern matrix with item loadings of 0.45 for a five-component solution with Promax rotation.*

Items	Components				
	Textbook value	Difficulties	Competence	Mirroring	Colleagues
<b>2</b>	.879				
<b>1</b>	.864				
<b>4</b>	.842				
<b>3</b>	.838				
<b>5</b>	.732				
<b>9b</b>		.966			
<b>9c</b>		.932			
<b>9a</b>		.932			
<b>6b</b>			.944		
<b>6a</b>			.936		
<b>6c</b>			.916		
<b>7</b>				.932	
<b>8</b>				.930	
<b>12</b>					.807
<b>10</b>					.725

**Table 2**

*Categorical PCA pattern matrix with item loadings of 0.45 for a five-component solution with Promax rotation.*

#### *Group differences - Multivariate analysis of variance (MANOVA)*

The five components that were confirmed by the PCA were analyzed by means of two separated ANOVA models to measure the effect of the two different demographic variables (i.e., Professional Role and Years of Teaching). In the two MANOVA, the dependent variables were: (1) Textbook value, (2) Difficulties, (3) Competence, (4) Mirroring, and (5) Colleagues. P-values were adjusted using the Bonferroni method of correction for multiple comparisons.





Specifically, we were interested in analyzing the group differences in terms of professional role (Special Needs Teachers vs Classroom teachers). Results of the MANOVA [ $F(5, 298) = 4.296$ ;  $p = .001$ ;  $\eta_p^2 = .067$ ], with group as between-subject variable, revealed significant differences between the two professional roles. Follow-up univariate ANOVAs highlighted that there was a statistically significant difference in the Competence ( $F(1, 302) = 4.823$ ,  $p = .028$ ;  $\eta_p^2 = .016$ ) and in the Colleagues ( $F(1, 302) = 13.075$ ,  $p < .001$ ;  $\eta_p^2 = .043$ ) components between the groups. No other statistically significant differences were found. Special Needs Teachers showed higher levels of perceived competence in dealing with materials representing disabilities, whereas they reported a more negative attitude regarding the relationship with the colleague.

Furthermore, the MANOVA model described above was applied in order to explore group differences due to the teaching experience. Years of Teaching was inserted as between-subjects factor. Results showed a statistically significant difference between the two groups on the combined dependent variable [ $F(5, 298) = 3.355$ ,  $p = 0.006$ ]. Univariate ANOVAs indicated that there is a significant difference between the groups in the Mirroring ( $F(1, 302) = 7.325$ ,  $p = .007$ ;  $\eta_p^2 = .024$ ) and in the Colleagues components ( $F(1, 302) = 7.934$ ,  $p = .005$ ;  $\eta_p^2 = .026$ ). These results highlighted the fact that teachers who have been teaching for less time (i.e., less than 15 years) showed more negative attitudes toward the possibility for students with disabilities to mirror themselves in the textbook compared to teachers with longer teaching experience, revealing a greater awareness of the content-related constraints and the representational limits of the educational-didactic materials. Moreover, analogously to the Special Needs teachers, participants reported a more negative attitude regarding their colleagues.

#### *Questionnaire components as predictors of attitudes toward the use of inclusive materials*

Using a two-step, fixed entry, multiple regression analysis on the entire sample of participants ( $n = 304$ ), the five different components of the questionnaire were tested as predictors of general attitudes toward the utility of using materials representing individuals with disabilities to promote inclusion (Item 0 of the questionnaire). First, the two demographic variables (i.e., Years of Teaching and Professional Role) were inserted in the model at Step 1 to ascertain how they affected overall attitudes toward the use of inclusive materials, whereas the five components (i.e., (1) Textbook value, (2) Difficulties, (3) Competence, (4) Mirroring, and (5) Colleagues) were inserted as predictors at Step 2.

The hierarchical multiple regression revealed that none of the demographic variables, inserted at Step 1 of the model, significantly predicted the attitudes toward the use of inclusive materials [ $F(2, 301) = .593$ ,  $p = .553$ ,  $r^2 = .004$ ]. The addition of the five components to the regression model explained 32% of variance [ $F(7, 296) = 19.425$ ,  $p < .001$ ,  $\Delta R^2 = .311$ ]. This change in  $R^2$  was significant [ $F(5, 296) = 26.856$ ,  $p < .001$ ]. Importantly, all the components inserted at Step 2 (except for Difficulties) made a significant contribution to the prediction (Textbook value and Competence:  $p = .000$ ; Mirroring and Colleagues:  $p < .001$ ). The results showed that the perceived competence in using inclusive materials and the didactic-educational value of the school textbook were the strongest predictors of general attitudes toward the utility of using inclusive materials. In addition, the beta values for the perceived possible mirroring effects for SEN students and the perceived efficacy in collaboration with colleagues were slightly lower, but they were also powerful predictors of general attitudes toward the use of materials representing individuals with disabilities. For details, see Table 3.



	Model 1		Model 2	
	$\beta$	p	$\beta$	p
Years of Teaching	.038	.528	-.030	.564
Professional Role	.063	.297	-.059	.258
Textbook value			.267	.000
Difficulties			-.011	.819
Competence			.447	.000
Mirroring			.166	.001
Colleagues			-.163	.001
DF Model	301		296	
F-value anova (vs null model)	.593		19.425***	
R <sup>2</sup> (vs null model)	.004		.315	
F-value anova (vs previous model)	.593		26.856***	
$\Delta R^2$ (vs previous model)	.004		.311	

**Table 3**

*Summary of three steps, fixed entry, hierarchical regression analysis (on the entire sample N=304) for variables predicting the perceived utility of using materials representing individuals with disabilities to promote inclusion.*

*Note: Model 1 controls for Years of Teaching experience, and Professional Role; Model 2 adds: (1) Textbook value, (2) Difficulties, (3) Competence, (4) Mirroring, and (5) Colleagues.  $p < .05^*$ ;  $p < .01^{**}$ ;  $p < .001^{***}$ .*

## Discussion

Focusing on the representation of disability within school textbooks poses significant challenges for teachers, as images and texts depicting disability are exceedingly rare in such materials. Moreover, teachers are generally ill-equipped to address this topic.

Therefore, the development of a questionnaire serves not only as a research tool but also as a means for teachers to contemplate this subject and uncover their thoughts and attitudes. The factorial analysis of the questionnaire items substantiated the foundational elements inherent in the emerging results. The aforementioned findings indicate that special education teachers exhibit a tendency towards more positive attitudes regarding the competence to handle materials portraying disability.

These findings underscore a consistent pattern that aligns with existing literature on teachers' attitudes towards disability and inclusion (Camedda & Santi, 2016; Freytag, 2001; Ianes et al., 2010; Mura, 2014).



This emphasizes that the way teachers construct meaning around disability in curricular materials tends to mirror their pedagogical stance and inclusive orientations within the school context.

Special education teachers, due to their experience and training, were found to possess a heightened awareness of pedagogical approaches associated with inclusion and demonstrated greater confidence in their current skill set. They also appear to be more cognizant of areas in need of improvement. Training specifically focused on inclusive teaching, therefore, appears to be a positive factor influencing teachers' attitudes towards inclusion.

Additionally, the findings of this study indicate that this awareness becomes apparent when considering the challenges inherent in the respondents' interactions with their colleagues. Special education teachers tend to acknowledge that they may encounter more difficulties in collaborating with regular classroom teachers regarding the introduction of materials representing disability. This outcome aligns with prior research that has highlighted the existing obstacles in the relationship between regular classroom teachers and special education teachers concerning the adoption of an inclusive vision and inclusive practices (Ianes et al., 2010).

Teachers' experience appears to be another influential factor that can affect their attitudes towards the representation of disability. Specifically, teachers with over 15 years of service were found to exhibit a greater awareness of the scarcity of materials depicting disability, the inability of individuals with disabilities to see themselves reflected in school textbooks, and potential challenges in their relationships with colleagues. These findings further support previous research highlighting the association between teachers' experience and attitudes towards disability (Cornoldi et al., 1998; Forlin, 2012). The evidence from this study suggests that both experience and inclusive training are two variables that can positively impact teachers' attitudes towards the representation of disability.

A positive assessment of the educational value of textbooks, along with the respondents' recognition of the importance for students with special needs to feel represented by materials, are two significant predictors of a positive attitude towards the utility of inclusive representation. This finding confirms the correlation between teachers' attentiveness to the materials they use and their ability to incorporate inclusive imagery. Additionally, the perception of one's competence in handling materials depicting disability emerges as another predictive factor regarding attitudes towards the usefulness of inclusive representation, thereby emphasizing the need for specialized training.

Lastly, positive interactions among colleagues also serve as a predictive factor for teachers' attitudes towards the utility of inclusive materials, underscoring the significance of collaboration as a fundamental variable for fostering an inclusive perspective (Janney & Snell, 1996; Voltz et al., 2001).

We strongly advocate for the organization of university courses that address the representation of disability in textbooks, catering to both pre-service and in-service teachers. Furthermore, such training should not be limited to professionals focusing solely on students with special educational needs but should also be extended to regular classroom teachers (Ianes, 2014; 2016). A practical approach to tackling this issue could involve a theoretical introduction followed by a substantial practical component. The theoretical portion should explore the concept of social representation within the realm of media and its impact on stereotypes, attitudes, and behavior. Indeed, the findings of this study suggest the importance of raising awareness on a topic that has been largely overlooked, not only by researchers but also by practitioners (Filosofi & Venuti, 2019; Jensen et al., 2021).

The second, more hands-on segment should focus on enhancing teachers' competence in selecting inclusive images and texts to be integrated into educational materials. By observing specific students within the classroom, teachers would have the opportunity to adapt the materials according to individual characteristics. The behavioral and cognitive characteristics associated with autism could be meaningfully integrated into educational texts, including grammar materials—just as the inclusion of an image of a student with Down syndrome in a mathematics task can promote both curricular relevance and inclusive representation.

Finally, it is important to note that this study focused on teachers' attitudes toward disability representation in textbooks, but did not include a direct content analysis of the textbooks themselves—an im-



portant direction for future research. Moreover, the sample was limited to teachers from Northern and Central Italy; extending the investigation to Southern regions could provide a more comprehensive national picture and capture potential regional differences in both textbook usage and teachers' perspectives.

Continuous efforts are necessary to enhance teachers' skills in adapting or creating inclusive teaching materials. Future research in this field is imperative to address potential challenges that may arise from the utilization of inclusive materials, such as difficulties with colleagues and relationships with different stakeholders. Action research and reflective practices can be employed to enhance teachers' awareness and perception of inclusive skills (Sannipoli & Gaggioli, 2021; Souto-Manning et al., 2019). Further investigations could adopt a bottom-up approach, involving teachers and learners in the testing and evaluation of materials, with the ultimate goal of raising awareness about prejudiced attitudes and behaviors. Additionally, cross-cultural studies could explore the correlation between the presence of images and texts depicting disability and the level of inclusion in various educational contexts.

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