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Social participation of students with special educational needs in different educational systems

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Yearly data are collected describing progress in inclusive education. Frequently used criteria are the percentages of students attending special schooling or percentages of students officially labelled as having special educational needs (SEN). However, both criteria have pitfalls. In this study, the social participation of students was used as a criterion. We compared the social participation of students with SEN to the social participation of typically developing students in three countries, i.e. Norway, the Netherlands and the Flemish region of Belgium. In Norway, 37 seventh-grade students with SEN and 461 classmates; in the Netherlands, 29 seventh-grade students with SEN and 187 classmates; and in Flanders, 43 seventh-grade students with SEN and 469 classmates participated in this study. Peer nominations were used to assess students' peer acceptance in class. Results indicated that, across education systems, students with SEN had more social difficulties compared to typically developing students. Contrary to our initial expectations, the social participation of students with SEN in the more inclusive Norwegian education system did not outperform the social participation of the Dutch and Belgian students with SEN. However, these outcomes are an artefact of the sampling methods used. This confirms the complexity of international comparisons.

Keywords: inclusion; special educational needs; educational systems; international data; peer acceptance

Introduction

In recent decades, the inclusion of students with special educational needs (SEN) in regular schools has become a global trend (Pijl, Meijer, and Hegarty 1997). Article 24 of the UN Convention on the Rights of Persons with a Disability (United Nations 2006) guarantees the right of persons with disabilities to an inclusive education system at all levels. State parties of the UN Convention commit themselves to provide effective individualized support measures in environments 'that maximize academic and social development, consistent with the goal of full inclusion'. So far, more than 150 states signed this convention, amongst which are Belgium, the Netherlands and Norway.

The fact that countries have signed the Convention does not imply that these countries have implemented inclusive schooling in a similar way and have made comparable

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progress. On the contrary, the differences between the educational systems in countries in the Northwest of Europe are actually quite large. For example, Flanders (the Dutch-speaking part of Belgium) has distinct systems for special and regular education and has therefore been described as a ‘two-track system’ (Meijer 2003). Although cooperation between special and regular education in relation to the inclusion of students with SEN in mainstream schools has been established since 1983 (Meijer 2003; Eurydice 2010a), today only a small proportion of students with SEN are fully included in mainstream schools in Flanders (Watkins 2010). The education system in the Netherlands also comprises regular and special schools, but work has been under way since 1990 on implementing a continuum between special and inclusive schools (Meijer 2003; Eurydice 2010b). It could therefore be described as a ‘multi-track’ approach. Finally, Norway is known for its one-track approach. As early as 1975, separate legislation for special education was abandoned and in 1991 all policies and practices regarding special needs education were directed towards inclusion in education (Meijer 2003). Each municipality is responsible for the provision of education for all residing students within the municipality and the main principle is that students with SEN are to be included in the mainstream school. Currently, the vast majority of students with SEN attend a mainstream school in Norway (Eurydice 2010c).

Percentages of students with a label and/or segregated schooling

These variations between the three countries are also reflected in the percentages of students with SEN in segregated schooling. The percentage of students in segregated settings varies from 0.8% in Norway, over 2.7% in the Netherlands to 5.5% in Belgium in full-time special schools (Watkins 2010). Also, the proportion of the total student population labelled as having special educational needs varies between these countries. Norway labels 8.4%, the Netherlands 4.4% and Belgium 6.6% (EADSNE 2012). This does of course not imply that Norway has more students with special needs compared to Belgium and the Netherlands. It only shows that these countries apply different systems and criteria for identifying students with SEN (Watkins 2010).

Both the Netherlands and Belgium work with psycho-medical assessment systems resulting in a categorization of students with different special needs. The Dutch system distinguishes four main categories (students with visual disabilities, communication disorders, motor and mental disabilities and behaviour problems) with a total of 10 subcategories, while the Belgian national system works with eight categories (e.g. mild learning difficulties, moderate or severe learning difficulty, severe emotional and/or behavioural problems). The assessment of students with SEN in Norway is based on a different approach. Students with SEN are defined in Norway as students not profiting enough from education (§ 5.1 of Law 17.06.98). How this is established differs from school to school.

These differences in assessment between the countries result in categorizations that are difficult to compare. The label ‘students with SEN’ has a different meaning in different countries and of course the same holds for subgroups with a particular label. A categorization as having ‘behaviour problems’ refers to different students in different countries. Any analysis using international data on students with SEN or SEN-subgroups has to cope with these differences. Consequently, these differences result in a serious error component in the analyses. It is obvious that working with many different subgroups will result in more error. Working with few subgroups reduces the error, but is less valid.

The percentage of students with SEN and the categories of SEN mostly reflect differences between the countries in rules, regulations and common practice (Watkins 2010). These percentages and categorizations do not have much to do with progress in implementing inclusive education and with moving from a two-track to a one-track education system. At first sight the data regarding the actual percentages of students with SEN in segregated schooling (see above) seem more relevant in judging progress in inclusive education. After all, the 5.5% in Belgium is a clear sign of having two separate tracks, while the Norwegian 0.8% shows that the special track is almost abandoned. However, these percentages only show where students with SEN are located and only partially inform us about the actual degree of inclusion of these students. A better criterion for progress in implementing inclusive schooling is the percentage of students with SEN actually participating in the local school community. This seems a more relevant index for having an inclusive school system (Pijl, Frostad, and Flem 2008). Hence, this study will assess the state of affairs in implementing inclusive schooling in Belgium, the Netherlands and Norway, by using the social participation of students with special needs as an effect measure.

Social participation

One of the assumptions behind inclusive education is that regular schooling enhances the possibilities for the social participation of students with special needs. Symes and Humphrey (2011) even regard it as a key indicator of successful inclusion of students with SEN. It is believed that both students with SEN and their typically developing peers benefit socially from inclusive education (Koster et al. 2009; Scheepstra, Nakken, and Pijl 1999; UNESCO 1994, 2005; Vignes et al. 2009). In the current literature, social participation is considered to comprise four key themes: (1) the presence of positive social contact/interaction between these children and their classmates; (2) acceptance of children with SEN by their classmates; (3) social relationships/friendships between them and their classmates and (4) the students with SEN's own perception of being accepted by their classmates (Bossaert et al. 2011; Koster et al. 2009). According to a literature review of studies on the social dimension of inclusion in the last 15 years, students with special needs in secondary education were often found to have fewer social interactions with their peers, to be less popular than their classmates and to be more often neglected or rejected (Bossaert et al. 2011). Students with SEN also have fewer friends compared to typically developing students. Students with SEN were found to have lower levels of social self-concept and lower self-perceptions regarding their social inclusion compared to their typically developing peers (Pijl, Skaalvik, and Skaalvik 2010; Schwab et al. 2014).

Until now, research on social participation has mainly focused on preschool and elementary school settings (e.g. Guralnick et al. 2006, Koster et al. 2010), whereas far less attention has been devoted to the social participation of students with SEN in late elementary/early secondary education (e.g. Carter et al. 2008). During (early) adolescence, peer affiliations become more important in children's lives (Brown and Klute 2003; Rubin, Bukowski, and Parker 2006). The few studies available suggest that the social participation of students with SEN in this age range is not without problems. They experience more social difficulties than typically developing students (Humphrey and Symes 2010; Pijl, Frostad, and Flem 2008).

It seems likely that the degree of social participation of students with special educational needs varies across different education systems. In countries with a longer or

more extensive history of inclusive education, typical students are more used to interacting with students with SEN. Research has shown that students' own experience with inclusive education leads to more positive attitudes among typical students (e.g. Maras and Brown 2000; Siperstein et al. 2007). Subsequently, more positive attitudes may lead to a higher degree of social participation of students with SEN. It therefore seems likely that in countries like Norway the level of social participation of students with SEN will outperform that in countries with a shorter or more limited history of inclusive education. Cross-national research on the social participation of students with SEN is still lacking. Therefore, this study was set up in order to answer the following research questions:

- (1) Does the social participation of students with SEN in Belgium, the Netherlands and Norway differ compared to their typically developing peers?
- (2) Do these differences also hold for subgroups of students with SEN?
- (3) Does social participation relate to the type of education system?

Differences in social participation of students with SEN versus typically developing students are expected in each country (first research question). The second research question addresses the differences for subgroups of students with SEN. As stated above, international data on subgroups are hard to compare. Since working with a few subgroups tends to yield more reliable data, we will limit the number of different subgroups to five. The decision to work with these five subgroups was inspired by the Dutch system with four categories and adding the students with mild learning difficulties in secondary education as a fifth category. This resulted in behaviour problems, severe learning problems, mild learning problems, communication problems and sensorial/motor problems as categories. It is expected that students with severe behaviour problems are likely to have more social difficulties compared to other subgroups of students with SEN (Pijl, Frostad, and Mjaavatn 2014). Finally, it is expected that students with SEN will score higher on indexes for social participation in the one-track education system of Norway, followed by lower scoring students with SEN in the multi-track system in the Netherlands, and finally students with SEN in the two-track system in Flanders (Belgium) are expected to score lowest on social participation (third research question).

Method

Procedure and participants

Three samples were drawn from the three countries involved. The three samples were drawn from existing databases in 2011. The Belgium sample, which is part of a longitudinal study (Bossaert 2012), comprises schools with students with SEN in 'integrated education' in seventh grade. In total, 628 regular secondary schools in Flanders were contacted by email or by phone (36% response rate). Eighty-four secondary schools with at least 1 seventh-grade student with SEN agreed to participate in the study. A random subsample was used for this study. This included 512 seventh-grade students, aged 12–13 years, from 33 different classes and 31 different schools, spread out over Flanders. Table 1 gives more detailed information on the number of students with special needs and the division over the five categories.

The Dutch study was part of a larger study (de Boer 2012). For the Dutch study, only schools with students with a formal diagnosis of SEN in seventh grade were selected. A total number of 25 regular schools were invited to participate in the study. Six schools

Table 1. Description of the samples.

Group	Belgium	The Netherlands	Norway
Typically developing students	469	187	461
Students with SEN	43	29	37
Behaviour problems	29	20	11
Severe learning problems	0	0	14
Mild learning problems	0	9	5
Communication problems	5	0	4
Sensorial/motor problems	9	0	3

decided to participate. Because some schools indicated that they had more than one class attended by a student with SEN, this resulted in a total sample of nine classes. Data were collected on all students of the participating classes, resulting in a total sample of 216 students, aged 12–13 years (see Table 1).

The Norwegian study was also part of a larger study (Pijl, Frostad, and Flem 2008). Lower secondary education starts in Norway with eighth grade. For this study 40 elementary schools in the area of Trondheim (Norway) were invited to participate. Thirteen schools decided to participate and met the selection criterion. This resulted in a sample of 13 seventh-grade classes with 498 students aged 12–13 years.

As reported in the introduction, Norwegian schools use different procedures for labelling and categorizing students with SEN in regular schools. Consequently, selecting students on the basis of only the formal outcomes of comprehensive assessment procedures would result in an incomplete and biased sample. Teachers were therefore asked to enlist the students in their class with formally stated SEN and the students with SEN, as defined by the school. We provided the teachers with a framework to describe the special needs of their students, asking them to inform us about the students' disabilities, the outcomes of the assessment procedures, and the special educational provisions made for these students. Teachers identified 37 students with SEN in seventh grade, which amounts to 7.4% of the total sample. Of these, 23 had been officially labelled as having SEN (4.6% of the total sample). Based on the information about the students, it was possible to categorize the students with disabilities into five groups (see Table 1).

As displayed in Table 1, not every subgroup of students with SEN is represented in each sample. In the Belgian sample, students with learning problems (mild learning problems) can by law not attend mainstream secondary education. In the Dutch sample, students with severe learning problems, communication problems or sensorial/motor problems were not represented. Additionally, some subgroups of students with SEN were very small, e.g. students with communication problems, and the Norwegian subgroups of students with mild learning problems and sensorial/motor problems.

In order to enable comparisons across groups, the groups of students with SEN had to be restructured. Based on previous studies we know that students with behaviour problems in particular experience social difficulties in class (Pijl, Frostad, and Mjaavatn 2014). These findings are not surprising, given that the difficulties of children with severe behaviour problems are primarily related to difficulties in interaction (i.e. 'primary social deficits'; for more detailed descriptions see DSM-V, American Psychiatric Association 2013). Consequently, one could postulate that students with severe behaviour problems differ in social participation from those with other SEN (such as children with sensorial/

motor problems, learning problems and communication problems; i.e. with ‘secondary social deficits’). Consequently, students with SEN were regrouped into two groups, i.e. students with behaviour problems and students with other SEN.

Instruments

This study will focus on one key aspect of social participation, i.e. the acceptance of students with SEN by their classmates. The introduction distinguishes four indexes for social participation: contacts, peer acceptance, friendships and peers’ own perception of being accepted. The study was based on existing data in the three countries. The available datasets comprised data gathered by nomination procedures. Data on contacts and on peers’ own perception of being accepted were not available. The existing data made it possible to calculate acceptance and friendship scores. Acceptance and friendship are both based on nomination procedures and show therefore much overlap (Pijl, Frostad, and Flem 2008). To avoid much repetition in presenting the results, it was decided to analyse acceptance scores only.

Peer acceptance was assessed by means of sociometric nominations. All participating students were asked to nominate their best friends in their class. In the Belgian and Dutch sample, students were given a class list, from which they could pick their best friends. In the Norwegian sample, this was not possible because a growing number of Norwegian schools has replaced traditional classroom grouping with a more flexible grouping system, in which about 15 students from the same grade work together for various subjects and activities. This broadens the reference group for students to all those in the same grade. Consequently, the nomination procedure in the Norwegian sample was based on free recall from students in the same class or same grade. Following Pijl, Frostad, and Flem (2008), in all countries students were allowed to nominate a maximum of five friends. The amount of ‘indegrees’, i.e. the number of nominations each individual received, was used as an index of peer acceptance (Wasserman and Faust 1994). In theory, due to the large differences in group sizes (e.g. smallest group: $N = 7$, largest group: $N = 65$), the range of ‘indegrees’ between groups could differ a lot, i.e. from 0 to $N-1$. However, preliminary analyses revealed no significant correlation between the standard deviation of the ‘indegrees’ of a group and group size ($r = -.02$, $p > .05$). Thus, raw scores of the number of ‘indegrees’ were used to assess peer acceptance.

Analyses

Sociometric data were analysed using UCINET 6 (Borgatti, Everett, and Freeman 2002). Based on these analyses, information on peer acceptance was added to the data-set. Consequently, comparative analyses were applied using SPSS 22.0. For peer acceptance two-way analyses of variance (ANOVA) were applied to compare the means of different groups. Effect sizes were calculated by means of partial eta squared (η^2). Partial eta squared expresses the proportion of variance explained by a variable that is not explained by other variables in the analysis (Field 2009). To facilitate interpretation of the partial eta squared, r can be calculated as the square root of η^2 . Following the guidelines of Cohen (1988), $r = .10$ equals a small effect, $r = .30$ equals a medium effect and $r = .50$ equals a large effect. In addition, power analysis was carried out ($1-\beta$). Power estimates of 80% are desirable (Cohen 1992). When means of more than two groups were compared, post hoc tests with Bonferroni correction were carried out. Hence, we applied the following

procedure: first, we analysed whether there were differences in the acceptance level of students with SEN and their typically developing peers in each of these education systems. Second, we analysed if the social participation of subgroups of SEN differed in each of these education systems. Third, we analysed if the acceptance of subgroups of students with SEN differs between educational systems. A significance level of .05 was considered as statistically significant.

Results

Peer acceptance in each educational system

The data in Table 2 show that Belgian students with SEN were less accepted by their peers ($F(1) = 10.26, p < .01, \eta^2 = 0.02, r = .14, 1-\beta = 0.89$) compared to typically developing students (see first two data lines in Table 2). When the two subgroups of students with SEN were taken into account ($F(2) = 5.26, p < .01, \eta^2 = 0.02, r = .14, 1-\beta = 0.83$), only students with behaviour problems were significantly less accepted than typically developing students ($p < .05$).

The analyses of the Dutch sample showed that differences between Dutch students with SEN and typically developing Dutch students differed significantly in their level of peer acceptance ($F(1) = 3.76, p = .05, \eta^2 = 0.02, r = .13, 1-\beta = 0.49$). When we looked at the two different subgroups, no differences were found between typically developing students, students with behaviour problems and students with other SEN in peer acceptance ($F(2) = 1.87, p > .05, \eta^2 = 0.02, r = .13, 1-\beta = 0.39$). Norwegian students with SEN were significantly less accepted ($F(1) = 20.97, p < .001, \eta^2 = 0.04, r = .20, 1-\beta = 1.00$) compared to Norwegian typically developing students. When different subgroups of students with SEN were taken into account, significant differences in peer acceptance were found between typically developing students, students with behaviour problems and students with other SEN ($F(2) = 10.77, p < .001, \eta^2 = 0.04, r = .20, 1-\beta = 0.99$). Typically developing students were significantly more accepted by their

Table 2. Differences in peer acceptance in each educational system.

	Peer acceptance		
	<i>N</i>	<i>M</i>	SD
Belgium			
Typically developing students	469	4.25	2.28
Students with SEN	43	3.09	1.99
Students with behaviour problems	29	2.97	2.24
Students with other SEN	14	3.36	1.34
The Netherlands			
Typically developing students	187	4.18	2.23
Students with SEN	29	3.31	2.29
Students with behaviour problems	20	3.30	1.90
Students with other SEN	9	3.33	3.12
Norway			
Typically developing students	461	3.86	2.00
Students with SEN	37	2.30	1.91
Students with behaviour problems	11	1.91	1.70
Students with other SEN	26	2.46	2.01

peers compared to students with behaviour problems ($p < .01$) and students with other SEN ($p < .01$). However, no significant differences in peer acceptance were found between students with behaviour problems and students with other SEN.

Differences in peer acceptance between different educational systems

First, a two-way ANOVA was conducted with the different educational systems and different subgroups of students as independent variables, and peer acceptance as a dependent variable. As peer acceptance in most subgroups of students per country was not normally distributed and sample sizes were unequal, the non-parametric Levene test was used to test for equal variances between groups (Nordstokke and Zumbo 2010). The test indicated that variances could be assumed equal ($F(8,117) = 1.81, p > .05$). As two-way ANOVAs are fairly robust against non-normality within subgroups and the variances between groups could be assumed equal, we could interpret the two-way ANOVA table. Figure 1 was added to make the results more insightful.

This two-way ANOVA indicated a main effect of student subgroup ($F(2) = 13.80, p < .001, \eta^2 = 0.02, r = .15, 1-\beta = 1.00$). Post hoc comparisons indicated that students with behaviour problems ($p < .001$) and students with other SEN ($p < .01$) experienced lower peer acceptance in the three educational systems. No significant differences in peer acceptance between students with behaviour problems and students with other SEN were found.

Furthermore a main effect was found for educational system ($F(2) = 3.26, p < .05, \eta^2 = 0.01, r = .07, 1-\beta = 0.62$). Post hoc comparisons, however, indicated that differences

Figure 1. Differences in peer acceptance.

between educational systems were not significant. Finally, contrary to our hypothesis, we could not distinguish an interaction effect between student subgroup and educational system ($F(2) = 0.57, p > .05, \eta^2 = <0.01, r = .04, 1-\beta = 0.19$).

Discussion

Yearly data are collected in order to describe the state of affairs in making education more inclusive in Europe. Widely used indexes are the percentage of all students who attend a segregated special school or the percentage of students officially labelled as having special educational needs.

However, indexes indicating where students are placed and what label they have are not the best indicators for inclusive education. It was decided to experiment with another indicator: the acceptance of students. We compared the acceptance of students with SEN to the acceptance of typically developing students. Results indicated that in the Belgian two-track system, the Dutch multi-track system and the Norwegian one-track system, students with SEN in seventh grade were significantly less accepted by their peers.

These results show that, regardless of the educational system, students with SEN are less accepted than other students. This confirms results of earlier studies, in which (subgroups) of students with SEN were indicated as a risk group for social participation (e.g. Humphrey and Symes 2010; Pijl, Frostad, and Flem 2008). Differences between students with SEN and typically developing students are more marked in the Norwegian one-track and the Belgian two-track system. However, the smaller sample size of the Dutch study might explain why the small, but expected differences in the Dutch multi-track system were not found. After all, the power to detect differences in the peer acceptance of the typically developing students and students with SEN in the Dutch sample (range of $1-\beta = 0.39-0.49$) was a lot smaller compared to the power in the other two samples (range of $1-\beta = 0.83-1.00$).

Contrary to our expectations, the social participation of Norwegian students with SEN was not better than the social participation of Dutch or Belgian students with SEN. However, once more, the sample might have lacked the power to find this interesting interaction effect, as the power to detect an interaction effect was fairly low. In hindsight the expectation that peer acceptance would be better in Norway was a bit too quick, if not naive. As explained earlier, the Norwegian educational system is entirely directed towards inclusive education. After the new legislation of 1992, only a few special education schools remained open (i.e. schools for sign language students) and others were reformed to resource centres (Meijer 2003). Contrary to the Dutch and Belgian situations, which both still have an elaborated special school system, the option of attending special education in Norway is very limited. Consequently almost all students with SEN attend regular schools, while in Belgium and the Netherlands students with severe disabilities largely attend schools for special education. Only students with relatively mild SEN are included in regular Dutch and Belgian mainstream schools. The Norwegian sample is therefore the only sample including students with more severe disabilities and students with intellectual disabilities. Former studies have indicated that social participation at school is negatively associated with severity of impairment and intellectual disabilities (Simeonsson et al. 2001; Wendelborg and Tøssebro 2008).

Therefore, the Norwegian sample not only differs in the degree of acceptance, it is likely that it also differs in the degree and complexity of students' special educational needs. That could explain the unexpected low performance in terms of acceptance. This obviously holds for future international comparisons looking into social participation in

inclusive settings. This could be termed the inclusion paradox: the more progress in implementing inclusive education, the lower the countries' relative performances in social participation. Taking the low performances in social participation as an argument against implementing inclusion would be more than naive.

This study once more shows that collecting and analysing data gathered in cross-national studies oversimplifies the complex reality behind the data. Despite its limitations, this study suggests that a significant proportion of students with SEN experience social difficulties in education. But this conclusion can also be rephrased in terms of the large group of students with SEN who fare quite well socially and for whom inclusion in a mainstream school has become a (social) success story. More in-depth research on these success situations might offer us ideas and tools to improve the social position of other students with SEN.

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Notes on contributors

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