Teacher attitudes towards the inclusion of students with support needs

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Abstract

Teachers' positive attitudes towards inclusive education are a prerequisite for its successful implementation. This study surveyed the attitudes of Finnish classroom, subject, resource room and special education class teachers (N = 4,567) towards inclusive education. The results indicated very low support for the concept. Its acceptance was strongly associated with the specific teacher categories and the concern that inclusive placements would cause extra work for teachers. Teachers who were confident in their support networks and had sufficient access to educational resources, such as an in-classroom teaching assistant, were more positive towards inclusion than other teachers. Attitudinal variables, including self-efficacy and child-centredness, and demographic variables, including age and gender, were also associated with attitudes towards inclusion. It is argued, that vicious circle exists between resources and teacher attitudes. The negative climate towards inclusion prevents the legislation that would guarantee adequate resources for mainstream teachers who have students with support needs in their classrooms. The lack of legal guarantees, in turn, prevents negative teacher attitudes towards inclusive education from changing. While the overall progress in inclusive education is tied to the development of cultural values, the promise of more inclusion in schools goes hand in hand with the availability of adequate resources.

Keywords*:* inclusive education, teachers, Finland, special education

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Introduction

The Salamanca Statement, given at the United Nations Educational, Scientific and Cultural Organisation's (UNESCO) 1994 conference on special needs education, brought the principle of inclusive education to the forefront, and this principle has since gained increasing attention from educators and the international community. Inclusive education seeks to place all children, including those with severe disabilities, in mainstream classrooms provided with adequate support. The Salamanca Statement outlines that exceptions to this educational structure should be rare:

> 'Assignment of children to special schools - or special classes or sections within a school on a permanent basis - should be the exception, to be recommended only in those infrequent cases where it is clearly demonstrated that education in regular class rooms is incapable of meeting a child's educational or social needs or when it is required for the welfare of the child or that of other children (UNESCO, 1994, p. 12).'

Notably, the statement also emphasises that '[c]hanges in the policies and priorities cannot be effective unless adequate resource requirements are met' (p. 41). One of the most important requirements is for mainstream teachers to have positive attitudes towards the inclusion of children with additional support needs in their classrooms (EADSNE, 2009, 2012a; UNESCO, 2009). These attitudes have been frequently surveyed (Avramidis and Norwich, 2002; Chazan, 1994; de Boer, Pijl and Minnaert, 2011; Scruggs and Mastropieri, 1996). The results vary between countries, cultures and educational systems. Italian teachers have the most positive attitudes, and Italy also has practiced full inclusion in primary schools since 1977 (Associazione TreeLLe et al., 2011; Balboni and Pedrabissi, 2000; Cornoldi, et al., 1998; Sharma et al., 2018; Zambotti and Demo, 2011). Teachers in developing countries with a significant lack of educational resources have the most negative attitudes (El-Ashry, 2009;

Mushoriwa, 2003). These two results demonstrate how the level of systemic support for inclusive education is associated with the attitudes of mainstream teachers towards their students with support needs.

Important variables that impact attitudes towards inclusion

Previous studies have determined that the two most influential variables affecting teacher attitudes towards inclusion are the teacher's professional category and the child's specific special educational needs (SEN). Among the attitudinal variables, self-efficacy has the strongest positive correlation with positive teacher attitudes towards inclusion (Aiello et al., 2017; Yada and Savolainen, 2017).

Studies generally conclude that special education teachers are more positive towards inclusion than classroom or subject teachers (Balboni and Bedrabissi, 2000; Engelbrecht, Savolainen, Nel and Malinen, 2013; Moberg, 2003; Pearson, Lo, Chui and Wong, 2003), primary and elementary school teachers are more positive than secondary school or upper-grade teachers (Alvarez McHatton and McCray, 2007; Chiner and Cardona, 2013; Larrivee and Cook, 1979; Saloviita, 2018; Savage and Wienke, 1989) and principals more positive than other teachers (Boyle, Topping and Jindal-Snape, 2013; Center and Ward, 1987). These findings confirm that teachers' attitudes towards inclusion are intimately associated with their professional positions and roles in the school.

The SEN category is another variable strongly associated with a teacher's willingness to accept a child into his or her classroom. Teacher attitudes correlate with a child's disability level and behavioural problems. The conditions most easily accepted by teachers are physical or health-related disorders and mild learning problems, and the conditions that are the most difficult for them to accept include autism, deafness, severe to profound intellectual disabilities and severe emotional and behavioural challenges (e.g. Avramidis, Bayliss and Burden, 2000; Avramidis and Kalyva, 2007; Bowman, 1986; Moberg, 2003; Pearson, Lo,

Chui and Wong, 2003; Stoiber, Gettinger and Goetz, 1998; Wilczenski, 1992).

Because teacher attitudes are closely associated with the teacher category and the SEN category, these attitudes are likely influenced more by practical work considerations and less by philosophical positions on the desirability of inclusive education. The issue of the lacking resources is constantly raised during discussions on inclusive education. As the Deputy Mayor of Helsinki, the capital of Finland, recently stated: 'integration is a good thing as long as there really are resources to support the child' (Aalto, 2017). The common argument is that including a SEN student in a mainstream classroom may overload the teacher because of the extra work this placement causes. If this extra work is not compensated for by the addition of targeted resources, the placement may be a pedagogic and human failure. Previous surveys suggest that about two-thirds of teachers have reported a shortage of resources – such as time, skill or training – to effectively support inclusive education in their classrooms (e.g. Avramidis, Bayliss and Burden, 2000; Center and Ward, 1987; Sharma and Desai, 2002; Scruggs and Mastropieri, 1996; Stoiber, Gettinger and Goetz, 1998; Subban and Sharma, 2006).

The solution to this problem, however, may be more complicated than just increasing the allotment of resources that support inclusive education in schools. Some studies have shown that increasing the amount of available resources has no effect or only a minimal effect on teacher attitudes (Center and Ward, 1987; Chiner and Cardona, 2013). Notably, the type of additional resources is crucial. Additional training of teachers does not necessarily change their attitudes. Instead, encouraging collaborations between teachers or providing additional administrative support to teachers has been shown to develop their positive attitudes (Ahmmed, Sharma and Deppeler, 2014; Chiner and Cardona, 2013; Larrivee and Cook, 1979; Minke et al., 1996).

Other variables

While country, SEN category, teacher category, professional cooperation, educational support and self-efficacy are the most influential variables, other variables have also explained teacher attitudes towards inclusion, albeit to a lesser extent. Among them are demographic variables, such as age or gender. Younger teachers are usually more positive towards inclusion than older teachers (Ahmmed, Sharma and Deppeler, 2014; Cornoldi et al., 1998), and female teachers generally more positive than male teachers (Alghazo and Naggar Gaad, 2004; Bowman, 1986). Additional variables associated with positive attitudes include the amount of prior contact with disabled individuals (Boyle, Topping and Jindal-Snape, 2013; Subban and Sharma, 2006; Wilkerson, 2012), training in special education (Ahsan, Sharma and Deppeler, 2012) and positive work experience (Avramidis and Kalyva, 2007; Kuyini, Desai and Sharma, 2018; Sharma et al., 2006).

Aim of the study

Surveys of Finnish teachers' attitudes towards inclusive education have reported that these attitudes were near or below the neutral midpoint of the scales used (Engelbrecht et al., 2013; Moberg, 2003; Saloviita, 2018; Saloviita and Schaffus, 2016). Each of these studies had some methodological limitations. Engelbrecht et al. (2013) used a large sample (N = 833), but did not report the return rate. Moberg (2003) used a sample of teachers participating in in-service training (N = 512), which may cause bias. While the return rate was not given, the survey was administered during a lecture, which usually guarantees high participation. Although Saloviita and Schaffus (2016) had a geographically representative sample of teachers (N = 427), their reported return rate was low (24%). Similarly, Saloviita (2018) had a large sample (N= 1764), but the reported return rate was low (26%). This was the only study in which the results also were given as percentages, which makes it possible to closer review the distribution of the teachers' responses.

Finnish studies have generally reported more negative teacher attitudes towards

inclusion than studies made in other western countries (Avramidis and Norwich, 2002; Scruggs and Mastropieri, 1996). This is in accordance with the higher level of school segregation in Finland compared with other countries (EADSNE, 2012b). However, one study that compared Finland and Germany concluded that the Finnish teachers were more positive towards inclusion than the German teachers (Saloviita and Schaffus, 2016).

The present study surveyed Finnish primary school teachers' attitudes towards inclusive education. A large sample size was used in order to do some fine-grained analyses not performed previously and some explaining variables never or rarely seen before were included in the study. In order to achieve as good return rate as possible in the e-mail survey, a very short scale for the measurement of attitudes towards inclusion was used, and the items were incorporated into a more neutral context of a survey investigating teacher's stress and burnout. The selected items were the three top items from the ten-item Teachers' Attitudes towards Inclusion Scale (TAIS) (Saloviita, 2015). These items accounted for 86% of the original scale's variance (Saloviita and Tolvanen, 2017). Notably, the use of these items enabled comparisons between this study's results and those of an earlier study (Saloviita, 2018). In addition, this study also examined the teachers' attitudes towards inclusion using various background variables, some of which have been rarely (teaching assistant) or possibly never (child-centredness) employed for this purpose.

Method

Participants

The participants were 4,567 Finnish primary school teachers. Demographic information (position, formal qualification and gender) is presented in Table 1. The participants were classroom, subject, special education class and resource room teachers. In some analyses the two last categories are combined into the umbrella category of 'special education teachers'. The subject teachers were divided in four subgroups based on their

majors: (1) languages; (2) science and mathematics; (3) humanities and (4) arts, crafts and physical education.

Of the participants, 262 doubled as school principals or vice principals. The mean age of the teachers in the study was 45.7 years old (SD = 9.5). The sample was compared with the statistics obtained from primary school teachers in 2016 (Finnish National Agency for Education, 2017). The percentages of formally qualified teachers and female teachers in each teacher category were close to those within this database, indicating that the sample was not biased in these respects.

Context

In Finland, practically all qualified primary school teachers have a master's degree from a university. The classroom teachers instruct grades 1–6, and their students are between 7–12 years old. The subject teachers are mainly responsible for the upper grades 7–9, and their students are between 13–15 years old. Special education teachers have a master's degree in special education, 60 ECTS studies on special education or other relevant studies. Special education teachers function as special education class or resource room teachers. Special education class teachers have self-contained classrooms of SEN students, who constituted approximately 5–6% of the total primary school student population in 2017 (Statistics Finland, 2018). These classrooms are typically located in mainstream schools. Resource room teachers have offices in which they receive a changing body of students. These teachers provide elementary speech therapy, instruct students on difficult school subjects and provide temporary placements for students whose behaviour is disrupting a mainstream classroom. This activity is known as 'part-time special education', and about 22% of primary school students participated in it in 2017 (Statistics Finland, 2018).

Primary school students are categorised by their respective support needs: general, intensified or special (Act on Basic Education, 1998/2010). Students with intensified support

needs (ISN) require extra educational support. This definition is usually the first step in identifying a student who is in ‘need of special support’, which is equitable to the term ‘special educational needs’ (SEN) used in many other countries. The students with ISN typically remain in their mainstream classrooms, whereas SEN students are usually transferred to special education classrooms.

Data collection

The data were collected in 2017 by preservice teachers (N = 95) participating in a scientific methodology course. Each group of students received a sample of Finnish municipalities. Because some municipalities did not have their teachers’ e-mail addresses available on the schools’ websites, they were excluded from the study. The student groups collected the teachers’ e-mail addresses from the schools’ official websites, and they sent each teacher an e-mail, which contained a link to the survey. The ethical principles of Finland’s National Advisory Board on Research Ethics (2009) were followed. The cover letter gave information on the aims of the study and emphasised that participation in the study was anonymous and voluntary. Individual respondents, schools or even municipalities could not be identified on the basis of data. The anonymity of data collection guaranteed full privacy for the participants on all three levels. About 14,349 e-mails were sent with a return rate of 31.8%.

Survey instrument

The survey gathered information about the participants, their students and their schools. For the present purpose, the survey contained scales to measure attitudes towards inclusion, self-efficacy and child-centredness. The responses were given with 5-point Likert scale ranging from ‘strongly disagree’ (scored 1) to ‘strongly agree’ (scored 5). The results from the following three scales are reported here. The questionnaire also contained other attitude scales, which are reported in a separate study.

Attitudes towards Inclusive Education – Short Form (TAIS-SF). The teachers' attitudes towards inclusive education were measured with the 3-item Teachers' Attitudes towards Inclusive Education – Short Form (TAIS-SF) (Table 2). To calculate the sum, the scores for items 1 and 2 were reversed. The reliability level of the TAIS-SF was calculated as $\alpha = 0.82$, indicating a good level.

Teacher Sense of Efficacy in Inclusive Education Scale (TSEIES). The teachers' self-efficacy was measured with the 3-item Teacher Sense of Efficacy in Inclusive Education Scale (TSEIES). This scale was based on the Teachers' Sense of Efficacy Scale (TSES), which contained 12 or 24 items divided into three factors (Tschannen-Moran and Woolfolk-Hoy, 2001). Three items were chosen, each representing a specific factorial dimension of the TSES. The dimension of efficacy for instructional strategies was assessed with item 1: 'I can teach many kinds of students, including students with special educational needs'. The dimension of efficacy in classroom management was assessed with item 2: 'I can keep good order in my classroom'. The dimension of efficacy for student engagement was assessed with item 3: 'I get students to rely in their own abilities'. The reliability level of the TSEIES was calculated as $\alpha = 0.61$, indicating a questionable level.

Child-centredness Scale (CCS). Four items were selected from the Teachers' Interactional Style Scale (Aunola et al., 2005; Kiuru et al., 2012) to measure the teachers' positive and warm behaviours towards their students. The original scale measured the extent to which the teachers considered their relationships with their students to be sensitive and responsive to these students' needs. The four items of the Child-centredness Scale (CCS) are as follows: (1) 'I like to talk with my students', (2) 'In the company of my students, I am usually uncomplicated and relaxed', (3) 'I like to ask how my students are doing' and (4) 'I often show my students that I care about them'. The reliability level of the CCS was calculated as $\alpha = 0.84$, indicating a good level.

Data analysis

The data were analysed using IBM SPSS Statistics (Version 24). Statistical methods included descriptive statistics, statistical significance tests, linear trend analysis, effect sizes, Pearson product-moment correlations and Cronbach's alpha. Bonferroni post-hoc tests were used for all a posteriori comparisons. The unpublished TAIS-SF values from the 2015 data were calculated from the original data file for this study.

Results

Comparison of the 2015 and 2017 results

The results from the TAIS–SF scale were compared with those from a similar assessment made in 2015 (Saloviita, 2018) (Table 2). There was a significant drop in the sum score from 2015 to 2017 with an effect size of $d = 0.36$. There was a drop in the mean values of all three teacher categories, and the largest drop was for the special education teachers. The analyses of the single TAIS-SF items showed that the teachers' responses to the items 1 and 2, which measured the outcomes of inclusion, did not significantly change. The effect size was $d = 0.13$ for item 1 and $d = 0.24$ for item 2. The third item measuring the perceived value of inclusion changed significantly ($d = -0.55$). Support for the principle of inclusion, counted as the sum of agreements and strong agreements, was now 31 percentage units lower for classroom teachers, 25 percentage units lower for subject teachers and 21 percentage units lower for special education teachers than in 2015.

Demographic and attitudinal variables

Gender and age. Female teachers were more positive towards inclusion than male teachers, $t(11375.696) = 6.84$, $p < 0.000$. However, the effect size was small ($d = 0.26$). Age, categorised into decennia groups, had a linear trend, as younger teachers expressed slightly more positive attitudes than older teachers, $F(1, 4510) = 4.69$, $p = 0.03$. The largest

difference existed between the teachers under 30 years of age and those 30 years of age or older, but the difference remained minimal with an effect size of $d = 0.14$.

Self-efficacy. The correlation between the TAIS-SF and the TSEIES was significant, indicating that higher self-efficacy was associated with more positive attitudes towards inclusion, $r = 0.157$, $p < 0.000$. The four teacher categories differed from each other in their self-efficacy, $F(3, 4474) = 181.37$, $p < 0.000$. The post-hoc comparisons indicated that special education teachers scored significantly higher than other teachers and classroom teachers scored higher than subject teachers.

Child-centredness. The correlation between the TAIS-SF and the CCS was statistically significant, indicating that higher child-centredness was associated with more positive attitudes towards inclusion, $r = 0.121$, $p < 0.000$. The four teacher categories differed from each other in child-centredness, $F(3, 4521) = 67.73$, $p < 0.000$. The post-hoc comparisons indicated that special education class teachers and resource room teachers scored the highest and subject teachers scored the lowest. Special education class and resource room teachers were on the same level in this scale. The largest difference was between special education teachers and subject teachers with an effect size of $d = 0.58$. Female classroom teachers and female subject teachers also were more child-centred than their male colleagues. The effect size between the genders was $d = 0.27$ for classroom teachers and $d = 0.18$ for subject teachers.

Ability grouping. Since 1983, law forbids the use of different curricula with changing level of difficulty in the same grade level. Teachers' willingness to return the old use ability grouping was asked by a statement: 'Ability groups should be used again'. Most classroom teachers (60%), subject teachers (76%) and special education teachers (63%) answered this statement positively. The correlation between the statement and the TAIS-SF was statistically significant ($r = -0.278$, $p < 0.000$). Teachers who preferred ability-based groupings also were

more favourable towards the use of special education classrooms, which supports the convergent validity of the TAIS-SF.

Teacher categories

Sorted by the teacher categories, the TAIS-SF scores for the years 2015 and 2017 are presented in Table 2. In 2017, the TAIS-SF sum scores of the classroom, subject and special education teachers differed significantly, $F(2, 4538) = 144.42$, $p < 0.000$. Post hoc tests indicated that every teacher category differed significantly from every other teacher category. When special education teachers were divided into special education class teachers and resource room teachers, it was found that resource room teachers were more positive towards inclusion (M = 9.89, SD = 2.79) than special education class teachers, (M = 8.41, SD =2.99), $t(736) = 6.80$, $p < 0.000$, with $d = 0.51$. Resource room teachers scored above the neutral midpoint (M = 9) of the TAIS-SF scale, whereas all other teacher categories scored below it. The distance of the classroom teachers from the other teacher categories, in terms of effect size, was $d = 0.21$ for the subject teachers, $d = -0.31$ for the special education class teachers and $d = -0.86$ for the resource room teachers. The biggest difference was found between the subject teachers and the resource room teachers ($d = -1.07$). Teachers who simultaneously worked as principals (N = 259) scored higher in the TAIS-SF than other teachers, $t(4322) = 4.50$, $p < 0.000$, $d = 0.29$.

Sorted by the teacher categories, Table 3 shows the percentages (agree or strongly agree) for each item of the TAIS–SF. Roughly half of the teachers agreed that SEN students learn best in their own special education classrooms (items 1 and 2). In contrast with the other categories, only a fourth of the resource room teachers preferred full-time special education for SEN students. The third item measured the teachers' acceptance of inclusion as a general principle. It was answered positively by 20% of classroom teachers, 15% of subject teachers, 32% of special education class teachers and 49% of resource room teachers. Overall,

39% of special education teachers answered positively.

Environmental variables

Number of SEN or ISN students. The presence of SEN or ISN or the total number of these students was not associated with the classroom or subject teachers' attitudes towards inclusion. Students with support needs are a standard presence in primary school classrooms. Only 9% of the classroom and subject teachers had no students with support needs in their classrooms, whereas most teachers had several of these students. Compared with ISN students, the presence of SEN students was less common, and 54% of classroom teachers and 76% of subject teachers had no such students in their classrooms. SEN students are normally instructed either mainstream or special education classrooms, whereas ISN students, as a norm, remain in mainstream classrooms. However, 42% of special education class teachers had at least one ISN student, and most of these teachers reported to have several ISN students.

Teaching assistants. The presence of a teaching assistant was associated with a more positive attitude towards inclusion among classroom teachers, $t(2057) = 5.98$, $p < 0.000$, $d = 0.26$. . Teachers with different views on inclusive education also used different strategies to use their assistants. Teachers who were more negative towards inclusion preferred somewhat more often than other teachers to transfer the student together with his or her assistant outside the classroom during the instruction period, $r = -0.081$, $p = 0.001$. They also more often than other teachers passed the full responsibility of the student's instruction on to the teaching assistant, $r = -0.057$, $p = 0.019$.

Adequate support. The perceived availability of classroom support was measured with the statement 'The supports are sufficient in my classroom'. The agreements (percentages) of each respective teacher category are as follows: classroom teachers (48%), subject teachers (47%), resource room teachers (74%) and special education class teachers (72%). The

statement correlated positively with the attitudes towards inclusion ($p < 0.000$) among both classroom teachers ($r = 0.171$) and subject teachers ($r = 0.183$).

Confidence in obtaining support. The teachers' confidence in obtaining additional support was measured with the statement 'I trust that I can receive enough assistance and support in my classroom if needed'. The agreements (percentages) of each respective teacher category are as follows: classroom teachers (44%), subject teachers (46%), resource room teachers (67%) and special education class teachers (67%). The statement correlated positively with the attitudes towards inclusion ($p < 0.000$) among both classroom teachers ($r = 0.191$) and subject teachers ($r = 0.224$).

Workload concerns. The perceived workload increase caused by an inclusive placement was measured with the statement 'The integration of a SEN student into the classroom causes additional work for the teacher'. The statement correlated negatively with the attitudes towards inclusion ($p < 0.000$) among both classroom teachers ($r = -0.243$) and subject teachers ($r = -0.309$). Almost all teachers (98%) agreed or strongly agreed with the statement. Classroom teachers expected the highest workload increase, and special education teachers expected the lowest, $F(3, 4499) = 42.89$, $p < 0.000$. The largest difference was between classroom teachers and resource room teachers with an effect size of $d = 0.50$.

Other independent variables. The size of the class, school or municipality was not significantly associated with teacher attitudes towards inclusion at the level of 1%.

Discussion

The associations of the studied background variables with teacher attitudes towards inclusion were remarkably similar to those observed in the majority of previous studies, which, however, have mostly employed much smaller sample sizes. While the present study was able to validate many results from the previous studies, some new and unique findings were also produced.

Comparison of the 2015 and 2017 results

There was a dramatic drop in the mean values of the TAIS-SF scores from 2015 to 2017. The drop occurred in all teacher categories, the largest found among special education teachers. A drop also occurred in the score of each scale item, the largest found in the third item, which recorded the general value of inclusion. Because no significant changes to school policy or legislation were made between the measurement years, one probable explanation for this difference is systematic bias, as the return rates for both surveys were low. Given that the expressed objective of the 2015 survey was special education and that of the 2017 survey was teacher stress, the most credible explanation for this difference is that the teachers with negative attitudes towards inclusion may have not actively participated in the 2015 survey. As reported by Scruggs and Mastropieri (1996), changes in return rates do not always impact the overall percentages. In this case, the different objectives of the surveys may have had a notable effect.

Attitudes towards inclusion and teacher categories

The majority of classroom and subject teachers believed that SEN students learn best in special education classrooms with qualified special education teachers and instruction that is best suited to each student's needs. This opinion was less popular among special education class teachers and resource room teachers.

Few teachers (22%) accepted the principle of inclusion, which maintains that students should be educated in mainstream classrooms 'as much as possible'. Positive answers varied according to teacher category: classroom teachers (20%), subject teachers (15%), resource room teachers (49%) and special education class teachers (32%). It was evident that a separate special education system was supported by the majority of primary school teachers.

The results of this study roughly correspond with those of previous studies on Finnish teachers' attitudes towards inclusion (Moberg, 2003; Saloviita, 2018; Savolainen, et al.,

2012). The results are also consistent with Statistics Finland's (2018) assessment of the primary school student population, in which the number of students who are transferred to special education classrooms remains large and has only increased over time up to the present.

Teacher attitudes towards inclusion were strongly associated with teacher category, a finding also confirmed in many previous studies. Therefore, these attitudes were likely based on the teachers' practical, day-to-day considerations rather than their opinions, say, on the evidence-based outcomes of inclusion. While the observed differences between teacher categories corresponded with those of previous studies, this study observed a unique difference between the attitudes of special education class teachers and resource room teachers. The difference may reflect the character of their respective student populations: students who visit resource rooms have only mild problems compared with those in special education classrooms. Teachers who also worked as principals were slightly more positive towards inclusion than other teachers, a result also reported previously. A reason for this might be their higher sense of autonomy at work, a hypothesis worth studying in the future.

Other variables

Positive attitudes towards inclusion were associated with young age, female gender, high self-efficacy and high child-centredness. Positive attitudes were also associated with environmental variables, including the availability of teaching assistants, the perceived adequacy of supports, the perceived confidence in attaining supports and the low workload expectation following an inclusive placement. These results were congruent with those of previous studies that analysed the same variables. Notably, an earlier study reported that the presence of a teaching assistant increased a teacher's indifference towards SEN students (Cook, Cameron and Tankersley, 2007). In this study, the presence of a teaching assistant was associated with a more positive attitude towards inclusion.

Conclusion

In discussions on inclusive education, one of the most requested resources is training that will improve teachers' knowledge of special education. It is commonly held that a lack of knowledge on this subject leads to negative attitudes towards inclusion. Accordingly, another frequent recommendation is to provide more in-service training on special education (e.g. Paju et al., 2016). However, this lack of knowledge can sometimes be a socially acceptable excuse for excluding SEN students rather than a source of the negative attitudes towards inclusion. In the present study, many special education teachers, all of whom have completed extensive special education training, had attitudes towards inclusion that were more negative than those of teachers without such training. Quasi-experimental research also has shown that classroom teachers generally have better results with SEN students than special education teachers (Hattie, 2009).

Evidently, the problem is not just a lack of knowledge. It is true that teachers who have participated in training courses on inclusive education are usually more positive towards the concept than those who have not (Ahmmed, Sharma and Deppeler, 2012; Garrad, Rayner and Pedersen, 2018). However, when the impact of inclusion training was studied experimentally, no positive effect was found (Beattie, Anderson and Antonak, 1997). Rather than requiring more cold training and preparation from teachers, the key to the successful implementation of inclusive education may be found within the activity itself. When teachers prioritise inclusive education, they take advantage of new ways of working, such as collaborative relationships with their fellow educators, and gain new interpersonal skills. It this way the teachers themselves create new resources in their work. When combined with teacher cooperation and mutual support, the implementation of inclusive education has, indeed, produced positive changes in teacher attitudes (Ahmmed, Sharma and Deppeler, 2014; Chiner and Cardona, 2013; Larrivee and Cook, 1979; Minke et al., 1996).

To identify the underlying causes of negative teacher attitudes towards inclusion, it is beneficial to compare teacher attitudes and school resources from different countries. Teacher attitudes have been remarkably affirmative in Italy, which has laws to guarantee the support of a special education teacher when a SEN student is placed in a mainstream classroom (Associazione TreeLLe et al., 2011; 2000; Cornoldi, et al., 1999; Sharma et al., 2018). The attitudes of Finnish teachers are more positive than those in Brandenburg, Germany, where, unlike in Finland, inclusive classrooms are rarely provided with paraprofessional staff (Saloviita and Shaffus, 2016). As the present study has demonstrated, adequate supports were more often available in special education classrooms than mainstream classrooms. The solution to negative teacher attitudes towards inclusion may be to provide extra support for these mainstream classrooms as well. However, any legislation that would legally guarantee this support is difficult to obtain, if the political climate does not favour inclusive education, as is the case in Finland. When it comes to the issue of inclusive education, there seems to exist a vicious circle of opposition and neglect, which is difficult to break.

The present study is expected to shed light on the existence of this intertwined problem of unfavourable attitudes and inadequate resources. The use of a large sample in this study made it possible to make fine-grained analyses. On the negative side, the use of very short attitude scales may reduce the reliability of the results. Also, the use of more versatile data-collection methods, including, for instance, interviews and case studies, is recommended. While the overall picture provided by this study may appear gloomy, it must be noted on the positive side that the long-term relative increase of segregated education has been stopped in Finland, possibly due to the gradual change occurring in cultural values (Statistics Finland, 2018).

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Table 1. Participants in the study.

Teacher category		N	Qualified %	Gender		
				Male %	Female %	Total %
1	Classroom teacher	2,080	97	19	81	100
2	Subject teacher	1,744	98	23	77	100
3	Special education class teacher	438	86	16	84	100
4	Resource room teacher	305	93	7	93	100
	Total	4,567	96	81	19	100

Table 2. The teachers' attitudes towards inclusive education measured by the TAIS-SF.

Year	Return rate	Classroom teacher		Subject teacher		Special teacher		Total	
		N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
2015	26%	787	8.55 (2.92)	543	7.78 (2.73)	347	9.90 (2.82)	1677	8.58 (2.93)
2017	32%	2074	7.52 (2.74)	1729	6.95 (2.68)	738	9.02 (2.99)	4541	7.55 (2.85)
Effect size *d* counted between 2015 and 2017 measurements									
			0.36		0.31		0.30		0.36

Table 3. The teachers' responses to the three TAIS-SF items.

Item		Teacher category				
		Class-room	Subject	Special class	Resource room	Total
	N	2080	1744	438	305	4567
		%	%	%	%	%
Percentage of teachers who agree or strongly agree						
1.	Children with SEN learn best in their own special education classrooms where they have specially trained teachers.	56	64	45	27	56
2	A child with SEN has the best outcome when placed in the special education classroom that best suits him/her.	51	60	42	25	52
3	Children with SEN should be educated in mainstream classrooms as much as possible.	20	15	32	49	22
Percentage of teachers who disagree or strongly disagree						
1.	Children with SEN learn best in their own special education classrooms where they have specially trained teachers.	16	14	25	41	18
2	A child with SEN has the best outcome when placed in the special education classroom that best suits him/her.	21	16	32	47	22
3	Children with SEN should be educated in mainstream classrooms as much as possible.	52	61	40	22	52