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Timo Saloviita

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Attitudes of Teachers Towards Inclusive Education in Finland

Timo Saloviita

Department of Teacher Education, University of Jyvaskyla, Jyvaskyla, Finland

ABSTRACT

Positive teacher attitudes are essential for success when children with special educational needs (SEN) are placed into mainstream classrooms. The present study surveyed teachers' attitudes towards inclusion by using a large national sample and Teachers' Attitudes towards Inclusion Scale (TAIS). A total of 1,764 Finnish basic-school teachers participated in the e-mail survey. They included 824 classroom teachers, 575 subject teachers and 365 special-education teachers. The classroom teachers scored below and the subject teachers significantly below, the neutral midpoint of the scale. The special-education teachers' mean scores were above the midpoint. About 20% of teachers were strong opponents of inclusion, and 8% were strong advocates. The attitudes towards inclusion had only weak associations with variables other than the teacher category. Teachers' work orientation and self-efficacy had low associations with their attitudes towards inclusion. The results illustrate the attitudinal climate of teachers towards inclusion and indicate the existing potential for policy change.

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Inclusive education; teacher attitudes; Finland; self-efficacy; work orientation; survey; special education; disability

Introduction

Inclusive education, as originally defined by the Salamanca Statement (UNESCO, 1994), refers to schooling in which all children, including children with severe disabilities, have access to regular classrooms with the help of adequate support. The principle turned the old way of thinking upside down. The change meant that children's own readiness was no longer considered the primary issue in their acceptance into mainstream education as was the case when the topic was discussed in terms of "integration". Demands to adapt were now turned toward schools, which were expected to become more welcoming towards children with differing abilities. This policy had been fully adopted in Italy already during the seventies, but because of language barriers its policy change was not very well observed in other European countries (Associazione TREELLE, Caritas Italiana, Fondazione Agnelli, 2011).

Since the early 1990s, the new principle of inclusive education has been incorporated into many countries' laws. It has also begun to appear in the statements and programmes of numerous international organisations, such as the European Commission (2010), the Organisation for Economic Cooperation and Development (OECD) (2005) the Council of the European Union (2010), and UNESCO itself (UNESCO, 2015). It was even incorporated into the Convention on the Rights of People with Disabilities (CRPD) (United Nations, 2006). Over the years, however, the principle has lost much of its original edge. From being a clear-cut outcome, inclusion has increasingly turned into an ambiguous "process" (Booth & Ainscow, 2000) or is left totally undefined, as was the case in the CRPD (United Nations, 2006).

CONTACT Timo Saloviita timo.saloviita@jyu.fi Department of Teacher Education, University of Jyvaskyla, P.O. Box 35, Jyvaskylan yliopisto 40014, Finland

Promoting inclusive education has proven to be a challenge. In many countries, segregated education has not decreased or has decreased only on a small scale (European Agency for Development in Special Needs Education [EADSNE], 2012a). However, the idea of inclusion has gained victories in other fields. In particular, it has stimulated research on the reorganisation of schools to become more welcoming to diverse student bodies (EADSNE, 2012b). In this research, positive teacher attitudes have been identified as one of the main issues (|EADSNE, 2003, 2012b; UNESCO, 2009, p. 19). It has been concluded that "inclusion largely depends on teachers' attitudes towards learners with SEN, their view of differences in classrooms and their willingness to respond positively and effectively to those differences" (EADSNE, 2003, p. 15). The importance of teacher attitudes actually may seem self-evident. If a teacher does not want a particular child in her classroom, it is difficult to see how any amount of extra resources or training could save the placement from being a failure. The mere existence of resources, such as knowledge or assistance, alone cannot determine the outcome. It is also necessary for the teacher to use these resources to attain a determined goal.

Because of their importance, teachers' attitudes towards integration or inclusion have been studied extensively for decades (Avramidis & Norwich, 2002; Chazan, 1994; de Boer, Pijl, & Minnaert, 2011; Scruggs & Mastropieri, 1996). Most often, these studies have been performed in the United States, but it is notable that they have appeared all over the world, including in developing countries. This wide interest may well reflect the active role of the United Nations and UNESCO in promoting inclusive policies worldwide. The difference of local circumstances and regulations around the world naturally can make the results difficult to compare. However, surprisingly similar results concerning the terms of inclusive education have repeated across different countries.

Aside from simple *ad hoc* measures, many studies have used psychometrically advanced attitude scales with such acronyms as SACIE-R, ORI, ATIES, ORM, CIES and MTAI (Saloviita, 2015). A problematic issue in most studies has been their small sample size. Most have relied on less than 200 participants, and only a few have reported larger sample sizes than one thousand.

One of the main issues of interest in these studies has been the overall level of acceptance of inclusive education among teachers. Scruggs and Mastropieri (1996) reviewed 28 surveys conducted from 1958 to 1995 in the U.S., Australia and Canada, mainly among general-education teachers. They found that approximately two thirds of the teachers had positive attitudes towards the basic idea of inclusion. A somewhat smaller majority expressed readiness to accept children with SEN into their classrooms. Similar percentages have emerged in subsequent studies. However, the overall acceptance of inclusion seemingly has not grown. An investigation that reviewed studies from 1999 to 2008 did not find any study in which positive responses would exceed 70% (de Boer et al., 2011). The stabilisation of the distribution of teacher attitudes towards inclusion was already confirmed by Scruggs and Mastropieri (1996), who found no changes in teacher attitudes between 1958 and 1995.

Explaining Teacher Attitudes

Several studies have conducted more targeted analyses to explain teachers' attitudes. Here, only studies made with in-service teachers are reviewed. As to the effect of gender, at least 10 studies found no difference between male and female teachers (e.g., Avramidis, Bayliss, & Burden, 2000; Chhabra, Srivastava, & Srivastava, 2010). About the same number of studies has shown that female teachers feel more positively towards inclusion than male teachers (e.g., Alghazo & Naggar Gaad, 2004; Alquraini, 2012; Bowman, 1986). Only two studies, both conducted with high school teachers, found that male teachers felt more positively toward inclusion than female teachers (Bhatnagar & Das, 2014; Ernst & Rogers, 2009).

In studies, teachers' ages have had either no association with their attitudes towards inclusion (Chhabra et al., 2010; Gyimah, Sugden, & Pearson, 2009; Kalyva, Gojkovic, & Tsakiris, 2007) or, three times more often, younger teachers have felt slightly more positively towards inclusion than older teachers (e.g., Ahmmed, Sharma, & Deppeler, 2014; Bornman & Donohue, 2013; Cornoldi, Terreni, Scruggs, & Mastropieri, 1999).

Among the attitudinal variables, the most frequently studied has been teachers' self-efficacy. Following Bandura's (1997) theory, "self-efficacy" has been defined as teachers' confidence in their individual and collective capability to influence students' learning (Klassen, Tze, Betts, & Gordon, 2011). Among the scales used to assess this construct, the most frequently applied in inclusion studies is the "Teacher Efficacy to Implement Inclusive Practices Scale" (TEIP) created by Sharma, Loreman, and Forlin (2012). The results have confirmed the positive correlation of TEIP scores with teachers' inclusive attitudes. The correlation coefficient has been near the value of $r = .40$ for in-service teachers (Aiello, Pace, Dimitrov, & Sibilio, 2017; Kuittinen, 2017; Yada & Savolainen, 2017) but only $r = .05$ to .09 for preservice teachers (Saloviita, 2015). Another instrument, the "Teachers' Sense of Efficacy Scale" (TSES) by Tschannen-Moran and Woolfolk Hoy (2001) measures teachers' self-efficacy in more general terms. It has been used in at least one study, but in contrast to TEIP, no association was found between the TSES scores and the attitudes towards inclusion in a sample of preschool preservice and in-service teachers (Sarı, Çeliköz, & Seçer, 2009).

Other frequently studied variables have included teachers' training in special education, their work experience with students with SEN, and their amount of prior contact with people with disabilities. The latter variable has found to be associated with more positive attitudes towards inclusion (Boyle, Topping, & Jindal-Snape, 2013; Subban & Sharma, 2006; Wilkerson, 2012). The training effect has consistently correlated positively with inclusive attitudes (e.g., Ahsan, Sharma, & Deppeler, 2012), as has work experience in most cases (e.g., Sharma, Forlin, Loreman, & Earle, 2006). However, the surveys have used quasi-experimental designs which are not able to confirm causal links. It could be that those teachers who are already positively inclined towards inclusion also participate more willingly in training and have more relevant experience.

Some environmental variables have also indicated positive associations with teachers' attitudes towards inclusion. The clearest connection has been found with the type of the child's disability. Teachers are most positive to include children with mild impairments and most negative to accept students with severe intellectual disabilities or behavioural problems in their classrooms (e.g., Bowman, 1986; Cook, 2001; Forlin, 1995; Lifshitz, Glaubman, & Issawi, 2004; Moberg, 2003). Most often, this finding has been understood to express a lack of teacher training or a lack of other resources, such as administrative support, adapted study materials or classroom assistants (Bowman, 1986; Cook, 2001). However, a problem remains why these resources should be so constantly lacking everywhere.

Another less-than-clear issue is the role of resources (Chazan, 1994; Minke, Bear, Deemer, & Griffin, 1996). Only one-third of teachers, on average, believed themselves to have access to all the necessary resources for successful inclusion to occur (Scruggs & Mastropieri, 1996). Lack of resources has been the problem usually mentioned also in more recent studies (Goodman & Burton, 2010; Gunnþórsdóttir & Jóhannesson, 2014; Sharma & Desai, 2002).

This assertion has usually been taken at face value. However, teachers' opinions do not necessarily mean that the resources are actually lacking. After all, there is no precise measure against which to assess the assumed shortage of means. It probably varies strongly from teacher to teacher. Teacher's claim of lacking resources might be just a socially acceptable excuse for not admitting children with SEN into their classrooms, a solution possibly made on some other reasons.

In an international comparison, Bowman (1986) found that teachers in those countries where the law required inclusion felt most positively towards this practice. It is, thus, possible that teachers' opinions also reflect the official policy of each country.

Teacher attitudes are strongly associated with teacher categories, so special-education teachers have usually been the most positive group (Engelbrecht, Savolainen, Nel, & Malinen, 2013; Forlin, Douglas, & Hattie, 1996; Hernandez, Hueck, & Charley, 2015; Moberg, 2003; Pearson, Lo, Chui, & Wong, 2003). School principals have also been more positive than teachers (Boyle et al., 2013; Center & Ward, 1987), and primary school teachers have been more positive than secondary school teachers (Alvarez McHatton & McCray, 2007; Chiner & Cardona, 2013; Larrivee & Cook, 1979; Savage & Wienke, 1989).

Special Education in Finland

Finland has a population of about 5.5 million people. Local municipalities, supported by the state subsidy, were responsible for the organisation of basic education. The Finnish basic school contains grade levels one to nine, educating children ages 7–15 years old. The first six grade levels are mainly taught by classroom teachers, who have master's degrees in education. Grades 7–9 are taught by subject teachers with master's degrees. Their degree includes one year of pedagogical studies. Because there is a separate master's degree programme for special education teachers, it is not seen important to include special educational contents to the training of classroom or subject teachers. Therefore, both groups are only shortly introduced to this field. The need for more knowledge to meet individual differences is regularly stressed by state authors (e.g., Ministry of Education, 2007a, 2007b) but without positive response from the side of teacher training institutions.

Finland has a basic school system with a large sector of segregated education. The number of special schools has steadily decreased, but the portion of students transferred to special-education classrooms, mostly residing in mainstream schools, is one of the greatest in Europe (EADSNE, 2012a; Statistics Finland, 2016). As yet, there has not been any official policy to change the situation and the principle of inclusive education is lacking from the school legislation (Act on Basic Education, 1998).

Special education is defined by law as an instruction given by special education teacher (Decree on Basic Education, 1998). It is divided into two different types. With so-called "part-time special education", students visit special-education teachers individually or in small groups, from one to several hours a week. The proportion of basic-school students participating in part-time special education was as high as 22.7% during the 2015–2016 school years (Statistics Finland, 2016). It has been argued that this high amount of part-time special education would be behind Finland's success in PISA comparisons (Kivirauma & Ruoho, 2007). This suspicion, however, has remained highly speculative.

In the Finnish context the term "a child with special educational needs (SEN)" has been changed to an expression "a child with a need for special support".

These children are identified through a pedagogic process which usually ends up on a decision made by a school principal (Act on basic education, 1998).

The second form of special education includes the official transfer of the child into "special support". This entitles the student to get instruction from a special-education teacher as well. Designating a student "special support" usually means transferring him or her to a special-education classroom. These classrooms are mostly located in mainstream schools. During the 2015–2016 school years, 7.3% of students were designated "special support" (Statistics Finland, 2016).

Aims of the Study

In Finland, a few studies have been performed on basic school teachers' attitudes towards inclusion (Engelbrecht et al., 2013; Moberg, 1997; Saloviita & Schaffus, 2016). The results show that Finnish teachers' overall scores have been near the neutral midpoint of the scales, indicating a generally lower acceptance of inclusion than that obtained in many other western countries (Avramidis & Norwich, 2002; Scruggs & Mastropieri, 1996). The results in the Finnish studies are usually given in means and deviations, or the sample sizes have remained small. It was, therefore, considered justified to conduct a large-sample study with results presented in percentages.

The present study was intended to survey the attitudes of Finnish basic school teachers in order to estimate the intellectual readiness of teachers toward inclusive education. The instrument chosen for the measurement was the "Teachers' Attitudes towards Inclusion Scale" (TAIS), which has been shown to have good psychometric qualities (Saloviita, 2015; Saloviita & Tolvanen, 2017). The scale should not be mixed with another inclusion scale with a slightly different name but same acronym (Monsen, Ewing, & Boyle, 2015).

To measure teachers' self-efficacy, the TSES (Tschannen-Moran & Woolfolk Hoy, 2001) was employed. Teachers' work orientation, a dimension not previously investigated in this context, was chosen as another independent variable for the study. Work orientation is a concept originally introduced by John Goldthorpe, Lockwood, Bechhofer, and Platt (1969) to denote the meaning of work for a person. Here, it was measured using a scale obtained from an international study on work orientation (Turunen, 2010). Additionally, some demographic variables were entered to explain teacher attitudes.

Methods

Participants

A total of 1,764 teachers participated in the study. The criteria to be included in the study sample were active teacher's position in the basic school in the Finnish-speaking community and the availability of teacher's e-mail address in the internet pages of the school. The sample size was also limited based on the criteria described later.

From the original sample of 1,858 responses, 55% were qualified classroom teachers, with 44% currently working in this position; 41% were qualified subject teachers, with 31% currently working in this position; and 22% were qualified special-education teachers, with 20% currently working in this position. Many teachers had double qualification. Of the respondents, 4% had no teacher qualification, and 5% currently were not working as teachers. The latter group was excluded from the study. Of the 1,764 remaining participants, 79% were women, and 21% were men. Their mean age was 47 years old, and they have been teaching for 18 years on average.

Counted from the total amount of teachers in basic schools in the year 2016 the participants included 8% of all classroom teachers, 9% of all special education teachers and 7% of all subject teachers. The number of female teachers was near the level of 80% in all groups (Finnish National Agency for Education, 2016). Other missing-data comparisons could not be made.

Data Collection

Data were collected in 2015 by 33 volunteering pre-service teachers who were divided into 19 groups. Each group included between one and three people, participating through a scientific methodology course. The participants used their own samples for their personal-study requirement. Each group was given a sample of Finnish municipalities. The groups systematically collected teachers' e-mail addresses from the schools' official websites and sent them an e-mail that contained a link to the inquiry. The cover letter stressed that participants would remain anonymous. One reminder was sent to all recipients.

The municipalities participating in the study were selected from the list of all Finnish municipalities, excluding the few Swedish-speaking communities in order to avoid the need to translate the survey. In all, 137 municipalities were chosen out of the total amount of 317 municipalities. The selection was made in alphabetical order and stopped when the needed amount of responses was obtained. Each group had to collect at least 50 replies. In some cases, the teachers' addresses were not available on the school's website. In this case, they were excluded from the study. A total of 26% of teachers who were approached returned the survey.

Survey Instrument

The questionnaire contained questions on several demographic background variables. They included gender, age, teacher category, main degree subject, formal qualification, present occupation, and years of teaching. Additionally, three scales measuring teachers' attitudes were used.

Teachers' Attitudes Towards Inclusive Education Scale (TAIS). Teachers' Attitudes towards Inclusive Education Scale (TAIS) is a one-dimensional scale having good to excellent psychometric properties (Saloviita, 2015). The scale was originally developed to measure teachers' attitudes towards inclusive education, as defined in the Salamanca Statement (Saloviita, 2015). It consisted of 10 items measured by a five-point Likert scale, ranging from "strongly disagree" (scored "1") to "strongly agree" (scored "5"), with a neutral midpoint scored "3". To calculate the sum total, the scoring of six items was reversed. Thus, higher scores indicate more positive attitude towards inclusion. The reliability of the scale has varied between $\alpha = .81–.90$ in various samples (Saloviita, 2015). The factor structure of the TAIS scale was shown to be one-dimensional in the Finnish samples, which distinguishes it from other published scales measuring attitudes towards inclusion (Saloviita, 2015). The items on the scale encompassed four content areas: inclusion as a value, expected outcomes, the child's rights and the teacher's workload. This versatility in content adds construct validity to the scale. The items are presented in Table 1.

Teachers' Sense of Efficacy Scale (TSES). Teachers' self-efficacy was measured by using a 12-item short form on the Teachers' Sense of Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001). The scale is a measure of teachers' evaluations of their own likely success in teaching. The scale has three factors: efficacy for instructional strategies, efficacy for classroom management and efficacy for student engagement.

Work Orientation. Teachers' work orientation was measured by using the work-preferences scale applied in the large international study "World Values Surveys and European Values Studies" (Turunen, 2010). The scale consists of eight items describing various work goals and was scored as to their importance through a five-point Likert scale. According to Turunen (2010), the scale contained three components: intrinsic work goals including an item "a job that is interesting"; material work goals including "good pay"; and societal work goals, including "helping others".

Data Analysis

The results were analysed by using descriptive statistics, *t*- tests, *F*-tests and Pearson product moment correlations. A stepwise regression analysis was conducted to explain attitudes towards inclusion, with several teacher-related factors used as independent variables. For this purpose, the categorical variables were transformed into dummy variables. Because of the high sample size, statistical significance was easy to obtain. Therefore group differences were compared using the effect size measure Cohen's *d,* as well.

Results

The mean value of the TAIS scale was 28.0 (SD = 8.2), which was just below the neutral midpoint of 30. The difference to midpoint was statistically significant, $t(1666) = -9.86$, $p < .000$. The dispersion of the scores was large, with thicker tails relative to normal distribution as confirmed by the value of kurtosis (−.553). The skewness of −.108 and its standard error of .06 indicated that the distribution deviated from normal distribution and had a prominent left tail with low values. This meant that normality was distorted because of the relative overrepresentation of low scores. The reliability of the TAIS scale was $\alpha = .90$. Its one-dimensionality was confirmed by a confirmatory factor analysis published separately (Saloviita & Tolvanen, 2017). The means and standard deviations of single items and corrected item/total correlations are provided in Table 1.

Table 1. Full texts of the items in the TAIS scale, corrected item/total correlations, means and standard deviations ($N = 1764$).

	Item	*r*	M	SD
1.	Children with special educational needs learn best in their own special education classes where they have specially trained teachers. R[1] (expected outcomes)	.72	2.57	1.13
2.	The children with emotional and behavioural problems should be educated in mainstream classrooms, with the provision of adequate support. (inclusion as a value)	.54	2.58	1.11
3.	It is the right of a child with special educational needs to be placed in a special education classroom. R[1] (rights of the child)	.63	2.10	.99
4.	Children with attention deficit/hyperactive disorder (ADHD) should be admitted in mainstream classrooms with adequate support. (inclusion as a value)	.58	3.20	1.08
5.	Teachers' workload should not be increased by compelling them to accept children with special educational needs in their classrooms. R[1] (workload of the teacher)	.66	2.68	1.23
6.	The best result is achieved if each child with special educational needs is placed in a special education classroom that best suits him/her. R[1] (expected outcomes)	.73	2.82	1.17
7.	The students with special educational needs should be educated in mainstream classrooms as much as possible. (inclusion as a value)	.72	3.19	1.14
8.	Integrated children with special educational needs create extra work for teachers in mainstream classrooms. R[1] (workload of the teacher)	.58	2.57	1.12
9.	A child with special educational needs should be transferred to a special education classroom in order not to violate his/her rights. R[1] (rights of the child)	.72	3.03	1.09
10.	The learning of children with special educational needs can be effectively supported in mainstream classrooms as well. (expected outcomes)	.70	3.29	1.13

[1]Note. The scoring of items marked with R was reversed.

Attitudes by Teacher Category

The classroom and subject teachers scored under the neutral midpoint of the TAIS scale while the special-education teachers scored above it. In all cases, the difference to a neutral midpoint was statistically significant. One-way analysis of variance (ANOVA) indicated that the overall comparison between teacher categories was statistically significant. Post hoc Bonferroni correction tests confirmed that all teacher categories differed from each other. The special-education teachers scored the highest and subject teachers the lowest while classroom teachers ranked in between (Table 2). The difference in terms of Cohen's *d* was high between special-education teachers and subject teachers ($d = .78$), moderate between special-education teachers and classroom teachers ($d = .52$) and small between classroom teachers and subject teachers ($d = .23$).

The distribution on disagreements (strongly disagree or disagree) equalling the answer "no" and agreements (strongly agree or agree) equalling the answer "yes" is given across item and teacher categories in Table 3. The biggest difference between the opinions of special-education teachers and classroom teachers was observed in item No. 9: "A child with special educational needs should be transferred to a special-education classroom in order not to violate his/her rights" ($d = .96$). Teachers were further divided into three groups based on their total score on the TAIS scale. The groups were "opponents" (scoring 20 or less), "neutral group" (scoring 21–39) and "supporters" (scoring 40 or more). Table 4 shows the relative percentages of teachers in each group across teacher categories.

Gender

Gender differences were measured by using a t-test. A statistically significant difference was observed between men ($n = 355$) and women ($n = 1{,}312$) in their TAIS scores; $t(1{,}665) = 3.74$, $p = .000$ with an

Table 2. Attitudes of teachers towards inclusive education as measured by TAIS.

Teacher category	*N*	Mean	SD	*df*	*F*	*p*
Sum total	1667	28.02	8.21	2, 1664	61.25	.000
Classroom teacher	783	27.74	8.17			
Subject teacher	539	25.92	7.60			
Special ed. teacher	345	31.92	7.85			

Table 3. The agreements and disagreements in percentages for the TAIS items by teacher category.

		Subject		Class		Special		Total	
		N = 575		*N* = 824		*N* = 385		*N* = 1,764	
	Item (shortened)	No	Yes	No	Yes	No	Yes	No	Yes
1.	Children with SEN learn best in special-education classes (R)	18	66	29	53	41	42	28	55
2.	Children with EBD should be in mainstream classrooms	60	22	60	25	46	37	57	27
3.	It is the right of a child with SEN to get into an SE classroom	6	75	11	74	18	67	11	73
4.	Children with ADHD should be in mainstream classrooms	35	40	29	49	22	61	29	49
5.	Teachers' workload should not be augmented (R)	25	61	33	52	50	40	34	53
6.	The best result is achieved if a child with SEN is placed in an SE class (R)	25	50	35	44	56	29	36	43
7.	The education of students with SEN should be arranged in the mainstream	42	40	34	51	20	70	33	52
8.	Integrated children with SEN create extra work for teachers (R)	21	62	25	59	43	40	28	56
9.	A child with SEN should be in an SE classroom so as not to violate his or her rights (R)	27	38	37	35	60	20	38	33
10	Children with SEN can be effectively supported in mainstream classrooms	40	45	30	57	20	71	31	56

effect size of $d = .22$. Female teachers felt slightly more positively towards inclusion than male teachers. Of the men, 26.4% belonged to the most critical group, scoring 20 or less, while 18.1% of women belonged to this group. When the analysis was extended to teacher categories, the differences disappeared with the exception of special-education teachers. Among them, females remained more positive than men. However, the statistical power of the comparison was compromised because of the small number of men in this group ($N = 44$).

Age and Years of Teaching

The age of the teacher was weakly correlated with the sum total of the TAIS scale, $r = -.09$, $p < .01$, and the amount of years teaching, $r = -.08$, $p < -.08$, indicating that younger teachers were somewhat more positive towards inclusion. The total scores were further compared across the decennial age groups of 20, 30, 40, 50 and 60 or more. The TAIS scores decreased systematically in each older age group, but the differences were not large.

The association of age with attitudes towards inclusion was analysed separately in teacher categories using the above age-group classification. Statistically significant F-values were achieved among classroom teachers, $F\ (4, 770) = 3.853$, $p = .004$, and special-education teachers, $F\ (4, 335) = 3.97$, $p = .004$, but not among subject teachers.

Teacher Qualification and Major Subject

The number of unqualified teachers was notable only among special-education teachers, of whom 7% ($N = 25$) were unqualified. These teachers were more negative of inclusion than qualified special-education teachers, $t(343) = 2.75$, $p = .006$ with $d = .57$. No similar differences were found among other teacher categories.

Subject teachers' degree majors were classified into: a) languages; b) science and mathematics; c) arts, crafts and physical education; and d) humanities. No differences in TAIS scores were observed between these groups, $F(3,474) = .492$, $p = .688$.

Table 4. Teachers classified on the basis of their TAIS score.

Teacher category	N	Opponents %	Neutral %	Supporters %	Total %
Classroom teacher	783	20.6	73.2	6.3	100.1
Subject teacher	539	26.3	70.5	3.2	100.0
Special education teacher	345	9.3	73.3	17.4	100.0
Sum total	1667	20.1	72.3	7.6	100.0

Sense of Efficacy and Work Orientation

The correlations between the TAIS, TSES and work-orientation scales remained close to zero, even when the correlations often were statistically significant. This was because of the study's large sample size. The correlation between TAIS and TSES was $r = .096$, $p = 0.000$. Equally, the correlations between TAIS and all three factors of the TSES scale remained low. The correlation of TAIS with instructional strategies was $r = 0.069$, $p = 0.005$, with efficacy for classroom management $r = 0.051$, $p = 0.037$, and efficacy for student engagement $r = 0.114$, $p = 0.000$. No statistically significant correlations were found when the analysis was conducted in three teacher subcategories.

Associations with work orientation were still smaller, with societal-work orientation having a correlation $r = 0.060$, $p = 0.014$; material work orientation $r = –0.012$ (n.s.); and inner work orientation $r = –0.033$ (n.s.). Separate analyses in three teacher categories did not produce any statistically significant results.

Regression Analysis

A stepwise regression analysis was conducted in which gender, age, teacher category, sense of efficacy and three types of work orientation were entered as predictors for TAIS scores. VIF values remained near the value 1, indicating low multicollinearity. Only the material work orientation dropped off from the final model, which achieved the value of $R = .314$ and R Square = .098, indicating that the model explained about 10% of the total variance of the dependent variable.

Discussion

The results from the survey of Finnish basic school teachers shed new light on some issues regarding teachers' attitudes towards inclusion; meanwhile, many findings also confirmed results obtained from previous studies. The differences between classroom, subject and special-education teachers proved to be significant and large. The classroom and subject teachers' sum scores remained below the neutral midpoint, which contradicted the common findings of teacher surveys but fitted with the earlier Finnish studies. The special-education teachers scored above the neutral midpoint, which differs from an earlier study (Moberg, 2003) and possibly indicates a change of attitudes in this group.

The more critical attitudes of subject teachers towards inclusion can be understood through their perhaps greater emphasis on subject matter instead of student development. Subject teachers instruct several student groups and have many times more students than the other two teacher categories. Their students are also older on average and represent a larger variability of skills due to their age level.

It is easy to understand that subject teachers just on these grounds could be less interested in inclusive education than other teacher groups. The relatively high popularity of inclusion among special-education teachers is more difficult to explain. Why they should be more interested in inclusion than the other three teacher groups? Perhaps they, compared with classroom and subject teachers, see more problems in the self-contained special-education classrooms. Inclusive education has been criticised as causing extra work for teachers (Gunnþórsdóttir & Jóhannesson, 2014); it may be that, for special-education teachers, inclusion does not signify a similar threat of additional workload as for classroom and subject teachers.

A conspicuous feature in teacher attitudes towards inclusion was its large variability. There was a substantial minority of teachers who were strongly opposed and a smaller minority who warmly advocated inclusion (Table 4). Despite a slightly negative general atmosphere, a small majority of teachers agreed that the education of children with SEN can be effectively supported in mainstream classrooms. A similar small majority also agreed that the education of these children should be arranged to take place in mainstream classrooms as often as possible.

The distribution of percentages in different items surveyed provides a deeper understanding of teachers' opinions (Table 3). One can see, for instance, that even if teachers' general attitude towards inclusion is rather negative, a majority believes that children with SEN can be effectively supported in mainstream classrooms. Also, only a minority believes that the best result is achieved by placing the student in a special education classroom.

Correlation coefficients also provide interesting information (Table 1). For instance, the opinion that inclusion does not create extra work for teachers correlated strongly ($r = .58$) with a positive view of inclusion in general. This result seems to indicate that the workload considerations play a significant role when teachers evaluate inclusion.

Teachers' attitudes towards inclusion have not been found to be strongly associated with any of the demographic variables thus far studied. In the present study, the teachers' gender and age gave results comparable to the majority of previous studies: female teachers were somewhat more positive than male teachers (e.g., Avramidis et al., 2000), and younger teachers slightly more positive than older ones (e.g., Ahmmed et al., 2014).

Attitudinal variables controlled for here included work orientation and self-efficacy. The teachers' work orientation did not show remarkable association with their attitudes towards inclusion. The teachers' sense of efficacy, measured by the TSES, had only a weak association with attitudes towards inclusion. The latter result may look disappointing because it seems to imply that teachers' own feelings on their likely general success had no association with their readiness to accept students with SEN in their classrooms. In previous studies, teachers' self-efficacy has been most often measured by the TEIP scale (e.g., Aiello et al., 2017). It has been found to be moderately correlated with attitudes towards inclusion. However, the question arises of its discriminant validity because the TEIP scale contains some very similar items with the scales measuring attitudes towards inclusion.

When eight predictive variables of this study were entered into a stepwise linear regression analysis, the final model explained only 10% of the total variance of the TAIS scale. The result resembled that of Leyser, Kapperman, and Keller (1994), who received a coefficient of determination of 9% in a large international study. As predictor variables they used age, teaching experience, gender, training in special education, experience with disabled students, and grade level.

A limitation of the present study was the low return rate, which could predispose its results to a systematic error. This suspicion is mitigated by the observation that return rates have not had an impact on outcomes in surveys on inclusion (Scruggs & Mastropieri, 1996). The use of a large national sample speaks to the generalisability of the results. It also allowed the analyses to be extended to the sub-samples with sufficient sample sizes.

The main contribution of the present survey was to outline the current state of mind among Finnish teachers regarding inclusive education. The results indicate that, in Finland, the policy of inclusive education quickly stumbles into attitudinal barriers among teachers, especially in the upper grades of basic school instructed by subject teachers. However, a small minority of teachers warmly approved of inclusion. This was especially true of special-education teachers, who have possibly become more positive compared with a survey made some 15 years ago (Moberg, 2003). It is also noteworthy that a small majority of all teachers accepted the basic idea that children with SEN can be effectively instructed in mainstream classrooms. The results confirm that there is potential for inclusive changes to occur in Finnish schools.

Disclosure statement

No potential conflict of interest was reported by the author.

ORCID

Timo Saloviita http://orcid.org/0000-0001-6723-3675

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