

Attitudes of pre-service teachers towards inclusive education for all in India

(scientific paper)

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Abstract: *This study sought to determine the attitudes of pre-service teachers towards inclusive education for all students in regular classrooms. Teachers' attitude towards inclusive education scale was administered through an online survey using Google form. A total of 217 pre-service teachers (male 72, female 135) enrolled in a 2-year Bachelor of Education (B.Ed.) programme at Gujarat State Universities in India had completed and responded to the survey. The study results showed that participants had a positive attitude towards inclusive education. Pre-service teachers had the most positive attitudes to supporting learning needs of diverse students in an inclusive classroom. Only two variables, the highest level of education and level of training in inclusive education were found to relate significantly to pre-service teachers attitudes towards inclusive education. There was no significant difference in pre-service teachers' attitudes towards inclusive education with regards to their gender, age, previous teaching experience and perceived level of knowledge regarding inclusion policies and legislations. The study findings have possible implications for policy makers and stakeholders involved in teachers' training in India and other countries in the South Asian region.*

Keywords: *Teachers' attitudes, Pre-service teachers, Inclusion, Education for all, Teachers' training*

1 Introduction

Developed countries have passed legislation promoting inclusive education since long international legislation influenced the inclusive education policies of developing countries [1]. With commitment to inclusive education by agreeing Sustainable Development Goals (SDGs) and United Nations Educational, Scientific and Cultural Organisation (UNESCO) Salamanca Statement [2] and being one of the signatory to the

United Nations (UN) Convention of Rights for People with Disabilities (CRPD) [3], India has made considerable progress by putting a robust legal frameworks (National Policy of Education [4]; People with Disabilities Act [5], revised as Rights of People with Disabilities Act [6]; Right to Education Act [7]) and programmes (Sarva Siksha Abhiyan [8] revised as Samagra Siksha Abhiyan [9]). These legal frameworks and programmes helped in improving the enrolment figure of Children with Disabilities (CWD) but ensuring quality education for all children for achieving Agenda 2030 (SDG 4) still remains a distant dream. The majority of the People with Disabilities (PWD) still face exclusion and discrimination, they either received education in a segregated environment or are poorly and ineffectively integrated with their potential untapped [10].

It is estimated that 2.21 percent (26.8 million) of the Indian population of over 1.2 billion live with disability in one form or another [11]. India faces immense challenges in addressing the educational needs of 6.6 million CWD in the age group 5–19 years. Even the number of children enrolled in school dropped significantly with each successive level of schooling and fewer enrolments of girls with disabilities is evident of significant gaps despite the increased enrolment of CWD [12]. Teachers' lack of acceptance is one of the reasons for not continuing education besides lack of professional knowledge, quality support and learning opportunities in inclusive schools [13]. The other categories such as LGBTQI, refugee, internally migrated communities etc., did not find recognition in Indian national policies on education (1986 and 2020) [14].

Borrowed from international organisations such as UNESCO, World Bank etc., inclusive education in India was limited to the CWD education and still lacks working definition due to a lack of systematic effort amongst the government and other stakeholders in exploring the meanings, relevance and applications of inclusive education in India [14]. Inclusive education is defined as a system of learning which includes children of all backgrounds in the classrooms and allows diverse students to grow side by side for the benefit of all [15]. An 'inclusive and equitable' education for all is at the core of the SDG 4 ambition [16].

Besides assistive technologies, accessible resources and flexible curriculum; teachers' attitudes towards including diverse children into their classrooms is also crucial to accomplish the inclusive education goal [12]. No matter how comprehensive legislative frameworks a country has, the teachers' lack of knowledge and skills, as well as negative attitudes hamper implementing inclusion policies [17]. Teachers need to be agents of change with values that support high-quality teaching for all students to provide truly inclusive education [18, 19]. For this, teacher education should prepare teachers to value learner diversity, should encourage them for collaborative work and support their continuous professional development [16, 20].

Although teachers generally do not feel their initial education has prepared them well to teach all learners [21] and many of them feels insufficiently prepared to teach in challenging environments [16].

Teachers hold the central role in implementing the policies relating to inclusive education, and therefore, their attitudes regarding inclusive education becomes crucial and need to be identified. Until recently, the Teacher Education Institutions (TEIs) were offering special education subject as an optional paper, but since the National Council for Teacher Education (NCTE) Regulations [22], inclusive education subject has been made compulsory for the 2-year secondary Teacher Education Programme (TEP). However, the initial training programmes tend to focus on CWD more than other vulnerable groups and rarely provide practical exposure in an inclusive setting [23]. Teachers in India do not rate themselves as competent to be inclusive [24] and do not have adequate training, infrastructures, institutional or peer support for inclusive education [25].

Several key variables are considered as significantly associated with the attitudes of pre-service teachers towards inclusion. With regard to gender, studies reported more positive attitudes among female educators than their male counterparts [26–28]. There is also evidence of positive influence of educators' willingness [27] and training [29–31] on their attitudes towards inclusion. The teachers with training in inclusive education [31, 32–33] and higher levels of tertiary education [27] were found to be more positive towards inclusive education. Research also suggests that teachers' self-evaluation of their capacity to teach in diverse classroom is closely linked with more positive attitudes regarding inclusion [34–36]. Knowledge about using inclusive practices and instructional strategies in the execution of inclusive practices is regarded as a crucial aspect of teacher preparation because it can change their attitudes towards inclusive education [1].

Researchers on pre-service teachers' attitudes towards inclusive education are seen as an important source to inform teacher education practices in Western countries [1] and have played a significant role in limiting implementing inclusive practices in schools in some countries of South Asian region [37–39]. Such researches are growing in India; however, they are limited to the narrower meaning of inclusive education i.e., special educational needs and disabilities while research on broader meaning of inclusive education for all is lacking in India. Furthermore, the authors did not come across such studies that measured teachers' attitudes towards inclusive education for all except the study of Keilblock [40]. Given we have less than 10 years for achieving SDG 4 and recent national policy on education [41] implementation in India, undertaking research in India was considered to be of value not only for policy-makers and stakeholders, but also for the teacher education programmes. The research aims were the following:

- To measure pre-service teachers' attitudes towards inclusive education for all.
- To identify differences in pre-service teachers' attitudes towards inclusive education based on demographic variables.

2 Method

The present study adopts quantitative research methods to achieve the above aims. Descriptive survey design was used. With the main purposes of measuring pre-service teachers' attitudes towards inclusive education, the study examines following research questions:

- What are Indian pre-service teachers' attitudes towards inclusive education?
- What are the differences in pre-service teachers' attitudes towards inclusive education based on their demographic variables?

2.1 Participants

The participants for this study were pre-service teachers enrolled in a two-year post-graduate Bachelor of Education (B.Ed.) programme in the teacher education institutions of Gujarat state of India. The teacher education institutions are not identified so as to maintain the anonymity of the respondents.

2.2 Materials

A two-part survey was used for data collection.

Part one: Demographic information

Part one of survey instrument sought information about gender (male, female, third), age (less than 25 years, 26–30 years and more than 30 years) group, highest level of qualification (graduation, post-graduation), education stream (arts, commerce, science), previous teaching experience, experience of teaching in inclusive setting (either in school internship or in previous teaching), level of training in inclusive education (less-up to 20 hours, average-up to 40 hours, high-up to 60 hours) and perceived knowledge of Indian policies/legislations on inclusive education (none, poor, average, good, very good).

Part two: Teachers' Attitude Towards Inclusive Education Scale (TATIES)

The TATIES [42] measures teachers' attitude beliefs towards inclusive education. Mistry [42] describes the scale development procedures along with its validity and reliability. This scale has a total of 19 items (11 positive and 8 negative) along with factors: attitude towards including all students in an inclusive classroom and attitude towards supporting the learning of all students in an inclusive classroom.

An example of an item is as follows: 'A good teacher feels comfortable in dealing with students with diverse background in an inclusive classroom'. Each item can be responded to on a 5-point Likert-type classification, with responses ranging from strongly agree (5), agree (4), can't say (3), disagree (2) and strongly disagree (1). The TATIES yield a total score that is obtained by adding the value of responses on each item. The value of total score can range from 19 to 95. Higher scores on the TATIES suggest that a respondent is relatively more positive towards teaching all students (inclusive diverse students) in an inclusive classroom. Internal consistency of the TATIES was calculated for the Gujarat, India sample using Cronbach's alpha and was found to be 0.77. Alpha coefficient for the two previously mentioned factors were above 0.80 (including all students in an inclusive classroom = 0.87 and supporting learning of all students in an inclusive classroom = 0.83), suggesting that they were sufficiently reliable for its use.

2.3 Design

The current study involves two-part survey design and reports data obtained from state wide online survey. Due to prevailing COVID-19 pandemic situation during the academic year 2020–21, online survey was conducted. This study investigates attitudes of pre-service teachers enrolled in the second year of the two-year teacher education programme (Bachelor of Education). Recruitment for the current study was on a voluntary basis.

2.4 Procedure

The online survey questionnaire was prepared on Google form and distributed to all the TEIs with a request to forward the questionnaire link to the pre-service teachers enrolled in the 2nd year of their B.Ed. course during the academic year 2020–21. The main reason of selecting only those pre-service teachers who were in their final phase of training (i.e., enrolled in fourth semester of two-year B.Ed. programme) was that they had completed their training on inclusive education. It was assumed that the attitude beliefs formed after receiving training on inclusive education in final stage of initial training which is likely to be sustained during the early years of their teaching career [34]. Participation in the survey was voluntary and participants were informed that they could withdraw from the study at any time and their responses will be anonymous

3 Results

A total of 207 pre-service teachers participated in the study. Of the 207 pre-service teachers, 65% were female ($n = 135$), 35% were male ($n = 72$) and most of them (91%,

n = 188) were under 30 years of age. The majority of participants had a postgraduate (masters) degree (n = 127, 61%) while 80 (30%) had a graduate (bachelor) degree. 80 (39%) participants indicated that they had teaching experience prior to joining initial teacher training (B.Ed.) while the remaining 122 (61%) participants had no previous teaching experience. More than half (n = 114, 55%) of the participants indicated that they had teaching experience at an inclusive setting either during the school internship or when previously teaching, while the remaining 45% (n = 93) had no teaching experience at an inclusive setting. Only 19% (n = 37) of participants had received high (more than 40 hours) level of training in inclusive education, 30% (n = 59) had received poor (less than 20 hours) level of training, while slightly more than half (n = 98, 51%) had an average (20 to 40 hours) level of training in inclusive education. Perceived knowledge about Indian policies/legislations (for e.g. Right to Persons with Disabilities Act, 2016; National Policy of Education, 2020) was limited, only 12% (n = 25) classified what was considered to be 'very good' knowledge; 45% (n = 93) with 'good' level of knowledge, while 36% (n = 74) had 'average' and 'poor' (5%, n = 10); and 2% (n = 5) reported they had 'no' knowledge of the inclusive policies/legislations.

Attitude towards inclusive education

The overall mean of participants on the TATIES was 3.58. A value of 4 on the TATIES suggests participants 'agree' with the statements that support inclusive education. A higher score on the TATIES indicates more positive attitudes towards inclusive education for all included in the TATIES. Therefore, a score of 3.58 is suggestive of positive attitudes towards inclusive education for all included in the TATIES scale. Participants' scores on each of the two factors of the TATIES were also analysed (see Table 1). It was found that participants had the most positive attitudes (M = 3.96) to supporting learning needs of diverse students (e.g., adjusting regular school curriculum in meeting the learning needs of all learners) than including all learners in an inclusive classroom (M = 3.30) (e.g., feeling comfortable in dealing with students with diversity in an inclusive classroom). The positive attitudes on both factors were upper side of the midpoint of the scale (3.0). This suggests that the participants had positive attitudes in both the factors.

Table 1: Descriptive statistics of participants responses on TATIES (n = 207)

Factors	Mean	SD
Factor I: Including all students in an inclusive classroom	3.30	1.57
Factor II: Supporting learning of all students in an inclusive classroom	3.96	1.51
Overall	3.58	0.37

Table 2 and 3 present the results for pre-service teacher groups based on demographic variables. A series of one-way analysis of variance (ANOVA) was conducted with participants' attitudes towards inclusive education as dependent variable. Post-hoc analysis using Scheffe's test was undertaken to determine significant sub-group differences where a variable had more than two categories. Scheffe's test is recommended for post-hoc analysis when the number of participants in sub-groups is unequal. It also provides more conservative estimates for sub-group differences. For each variable that was found to have a significant relationship with participants' attitudes eta-squared (η^2) values were also calculated to determine effect size (see Table 3).

Table 2 shows that there were no significant differences in participants mean attitude scores based on gender, age group, habitat, education stream and teaching experience in an inclusive setting. From the dataset, it was observed that participants over 30 years of age reported more positive attitudes ($M = 3.74$) than their counterparts under 30 years of age. The pre-service teachers from Commerce ($M = 3.70$) stream showed more positive attitudes than the pre-service teachers from Arts ($M = 3.55$) and Science ($M = 3.55$) streams.

Table 2: Analysis of variance for variables significantly not related to the attitudes mean scores

Variables	N	M (SD)	F	P
Gender				
Male	72	3.58 (0.35)	0.009	0.928
Female	135	3.57 (0.38)		
Age group				
Under 25 years	109	3.55 (0.35)	2.152	0.119
26–30 years	79	3.57 (0.35)		
Over 30 years	11	3.74 (0.52)		
Habitat				
Urban	107	3.58 (0.39)	0.714	0.491
Semi-urban	20	3.65 (0.42)		
Rural	80	3.54 (0.32)		
Education stream				
Arts	87	3.55 (0.38)	3.000	0.052
Commerce	42	3.70 (0.36)		
Science	78	3.55 (0.36)		
Experience of teaching in an inclusive setting				
Yes	114	3.56 (0.37)	0.755	0.386
No	93	3.60 (0.37)		

Only two variables (see Table 3), highest level of education and initial training level on inclusive education were found to relate significantly to participants' attitude scores. Pre-service teachers with graduate qualification ($M = 3.66$) held significantly more positive attitudes towards inclusive education compared to the pre-service teachers with postgraduate qualification ($M = 3.54$) [$F(1, 205) = 4.94, p < 0.05$].

Surprisingly, pre-service teachers with 'average' level (20 to 40 hours) of training in inclusive education expressed significantly more positive attitudes ($M = 3.62$) towards inclusive education than pre-service teachers with 'high' ($M = 3.41$) or 'poor' ($M = 3.56$) levels of training [$F(2, 191) = 4.64, p < 0.05$].

Table 3: Analysis of variance for variables significantly related to the attitudes mean scores

Variables	N	M (SD)	F	P	η^2
Highest education qualification					
Graduation	60	3.66 (0.34)	4.94*	0.03	0.024
Post-graduation	147	3.54 (0.38)			
Amount of inclusive education training					
Poor	59	3.56 (0.34)	4.64*	0.01	0.046
Average	98	3.62 (0.38)			
High	37	3.41 (0.27)			

* $p < 0.05$ (level of significance)

4 Discussion

Here, it is important to note that attitudinal study results should be interpreted with care as inferences about actual classroom behaviours on the basis of paper-pencil self-report needs to be made with caution [27]. Therefore, this study's results should be interpreted with care as the sample represented in the present study was only internet users and therefore, results could not be generalised to the teacher population who do not use internet.

This study examined the attitudes beliefs of pre-service teachers towards inclusive education in the Indian context. Overall, pre-service teachers from Gujarat, India were found to be positive in their attitudes to inclusive education. These results are in contrast with Sharma et al. [43] who studied attitudes of pre-service teachers using the ATIES in Pune region of Maharashtra state and found somewhat negative attitudes with regard to pre-service teachers. This might be evidence that exposure of contents on inclusive education through the compulsory subject on inclusive education since the NCTE Regulations [22] in the teacher training programme (B.Ed.) significantly improved pre-service teachers' attitudes towards inclusive education. The study carried out by Sharma et al. [27] confirms that appropriate training influences

participants' attitudes positively. The present study results are consistent with the recent Indian studies [44–47].

Mean scores of more than 3 on both the factors suggest that the pre-service teachers in this study have positive attitudes towards inclusive education. However, they were less positive regarding all students being inclusive in an inclusive classroom. This result is somewhat consistent with the findings that the teachers are more willing to include students who do not require modifications of teaching strategies [48] and resistant to include students with socio-emotional and behavioural difficulties [27, 49–50].

Findings in relation to demographic variables reveal that gender, age, habitat, educational stream and teaching experience in an inclusive setting were not related to the attitudes of pre-service teacher samples of the present study. The findings of indifference in attitudes of male and female participants are inconsistent with the study of Sharma et al. [1] who reported more positive attitudes among male pre-service teachers. Though recent Indian studies [45, 47, 51] support the present study finding but they also report a higher mean attitude scores of male pre-service teachers. Further studies by using the TATIES across Indian geographies will reveal true picture in this regard.

Pre-service teachers with graduate qualification were found to hold more positive attitudes compared to their postgraduate qualified counterparts. This finding is in sharp contrast to the Sharma et al. [27] who found that the postgraduate qualified pre-service teachers were positive compared to undergraduate. The exposure to inclusive education through social media and/or contact with the diverse group of students during their school or higher education might have improved attitudes of graduate pre-service teachers. This finding is somewhat consistent with Nakro [51] who studied attitudes of pre-service teachers in Nagaland. The mean attitude score of her population with graduate qualification was 3.22 compared to postgraduate qualified population ($M = 3.14$). Mean score less than 3.5 (i.e., agree) suggest that the pre-service teachers (both graduate and postgraduate) in Nakro's study [51] have neither positive nor negative attitudes towards inclusive education while more than 3.5 mean scores of both graduate and postgraduate pre-service teachers of this study suggest more positive attitudes in both the groups. This variation in result may be due to less training in inclusive education in Nagaland.

Surprisingly, the study revealed that the pre-service teachers with an average level of training in inclusive education (at least 40 hours) held more positive attitudes towards inclusive education in comparison to the pre-service teachers who had high (at least 60 hours) or poor (at least 20 hours) training. This finding is sharp contrast with Sharma [27] and Hsien [52] who reported more positive attitudes among the pre-service teachers with high levels of training.

5 Conclusion and implications

Since the Parsuram study [53], many studies attempted to measure teachers' attitude towards inclusive education in India. Unlike most of the previous studies that examined teachers' attitude by considering narrower meaning of inclusive education for some (i.e., SEND), the present study is perhaps the first study that examined the attitudes of pre-service teachers about inclusive education for all in India. The findings suggest positive attitudes of pre-service teachers however; it needs further observation on what extent they demonstrate the self-reported attitudes in their behaviours in real inclusive settings. Further research on teacher population across geographies in India would be also of value in generalising the present study's findings.

In its move towards achieving SDG 4, India is promoting inclusive education for all through policies [41], legislations [6, 7] and education programmes [9]. Teacher training is considered as an important aspect in all these policies, legislations and programmes. The teacher education institutions require providing explicit instructions in meeting learning needs of all students in inclusive classrooms. Since the NCTE Regulations [22], inclusive education is made compulsory subject; however, practical exposure to diverse classroom is neglected in most of the teacher education institutions. Practical exposure of inclusive classrooms to prospective teachers would be of great value in preparing competent teachers for inclusion. The TEPs also need to incorporate inclusive pedagogy and teaching practice in inclusive classroom for improving the attitudes and behaviours of teachers in an inclusive classroom. Recent studies [18, 54] also pointed the need of exposure of diverse classroom during the initial teacher training.

The stakeholders involved in teacher training are required to provide in-service training on the aspects in which the newly qualified teachers are least positive or negative so as to improve their attitudes towards diversity in their classrooms.

With the national policy education [41] supporting inclusive education for all, and provisions of teacher training for inclusion in Samagra Siksha [9], it is important that TEIs prepare teachers with ability to cater for diversity. Teachers with positive attitudes will also have impacts on the attitudes of all students and community towards diversity.

With ratification of UNCRPD [3] and signing SDG4, countries in the Asian region are pursuing inclusive education to a greater or lesser extent and this is still an emerging concept in many countries. This study shows to a small extent that the teacher education in Asian countries needs reforming in teacher education curriculum to provide pedagogical training to teachers. This is of prime importance as teacher's role is crucial in translating the inclusive education policies into practices. Lack of adequate initial training on inclusion and in exposure to teaching in inclusive settings may result in teacher hesitation regarding joining inclusive schools and inability in

catering diversity in their classrooms. These will greatly affect implementing international as well as national declarations on inclusive education in countries in the Asian region.

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