

Exploring Teachers' Attitudes Towards Inclusive Education in Indian Context Using 'Type of Disability' Lens

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Abstract

Teachers' attitudes are gateways to understand their beliefs, vision, and their likely behavior in inclusive classrooms. In Indian context, where inclusion is still in its nascent stage, many studies quantize teachers' attitudes as 'positive' or 'negative' without deliberate efforts of unpacking the different type of disabilities these attitudes could be referring to. Indirectly, this could lead to disregarding the role of type (and severity) of disability as influencing factors in shaping specific attitudes. We conducted a survey of middle school teachers in India to micro-analyze the attitudes using a lens of 'disability type' and explore causal reasons for positivity (or negativity) of such attitudes through interviews. Our survey indicated higher positive attitudes towards inclusion of students with 'orthopedic challenges' while concerns about inclusion of students with disabilities (SWD) related to vision, speech and hearing were stated. Some negative attitudes arose from teachers' concerns about pedagogic challenges in inclusive classrooms. Teachers with prior experience with SWD were more positive towards inclusion and highlighted the importance of technology in inclusive classrooms. Reforms in pre-service and in-service training to infuse technological ideas in classrooms were recommended by teachers.

1. Introduction

The Constitution of India guarantees education of all in Article 21A [1]. Further, 'The Right to Education' amendment act provides students with disabilities (SWD) a right of free education in any school till 18 years of their age [2]. Despite the legal provisions, the proportion of SWD among out-of-school children in India remains consistently high [3].

'Public attitudes' has been identified as one of the greatest barriers to equal education, and thereby existence of SWD in schools in India [4]. The success of inclusion of SWD in schools to a great

deal depends on the attitudes of parents, teachers, and school authorities. Even if SWD are enrolled in regular schools by law, their inclusion may not be whole-heartedly accepted by all stakeholders.

Negative attitudes of teachers can result in reservations towards social and cognitive responsibilities of inclusive education. Additionally, these can minimize opportunities for developing supportive environments for SWD in schools [5]. Concerns have been raised that negative attitudes of teachers can affect their behavior towards students in the classroom, and can also increase SWD attrition [6]. Thus, negative attitudes not only limit the participation of SWD at the entry point but can impact on their wellbeing at the school.

Considering the impact of teachers' attitudes on the practical success (or failure) of inclusion, many studies in Indian context have aimed to collect teachers' attitudes towards inclusion as a predictive tool [7], [8]. Undoubtedly, it is timely and important to follow this lead with India's vision of making all schools disabled friendly by 2020. However, often studies of teachers' attitudes are limited to collection of their attitudes about inclusion in general; and whether positivity or negativity of teachers' attitudes towards inclusion of SWD varies with the types of disabilities is not fully parsed. Partial knowledge about teachers' attitudes limits efforts of interventions and strategies towards inclusion, as attitudes are vaguely attached to all type of disabilities by default, which may not be the case always.

We approached our objective of parsing teachers' attitudes by the type of disability lens in this paper using both qualitative and quantitative framework. At first, we tailored the "Attitudes towards Inclusive Education Scale" (ATIES) scale to collect attitudes data using 'type of disability' lens to unfold teachers' attitudes towards inclusive education.

Later, we interviewed teachers to gain insights for selective attitudes, parse causal reasons that systematically portray the 'type of disability' effect (if any) on attitudes, and finally collect ideas of

empowering teachers in enhancing their abilities to teach SWD. Such parsing is important in the Indian context as inclusion is yet naïve in several schools and within teachers' community and is not studied with 'type of disabilities lens' in great details.

2. Literature review and research questions

Attitudes, as Allport defined, are a mental state of readiness of an individual [9]. Eagly and Chaiken combined the evaluative space (through which a certain attitude is formed) and affective space (where an attitude is expressed) to envision an individual's likely behavior in certain situations [10]. Broadly, cognition describes our understanding of the attitude object; affect shares the emotional connections with the object, while both affect and behavior express the attitude through responses. In this study, we adopted these ideas of how attitudes are developed by human observations, interpretations and extend into affective space.

We construct our study on the background that teachers' attitudes towards inclusion can provide a sense of their beliefs, their likely behavior in the inclusive classrooms, and the support they could provide in the classroom.

How do stakeholders define inclusive education? United Nations Educational, Scientific and Cultural Organization describes inclusive education as transformation of the education system to respond to diverse learners and dispel discrimination [4]. Inclusion provides an optimal environment for all students. In this regard, inclusion differs both philosophically and institutionally from 'special schooling' that focus on segregation.

The National Council of Teacher Education (NCTE), states that inclusion is a "philosophical position as well as an arrangement of institutional facilities and processes to ensure access to and conditions of success in education for everybody, including those students in the margins, either with learning difficulties because of physical or mental challenges or because of their social position" [11].

Inclusion is considered to have both academic and social benefits, for all students, with or without disabilities. These benefits include increased communication and social interaction opportunities for all, while for SWD, studies have indicated that inclusion has small to moderate effect on academic performance and community relations [12], [13], [14]. Yet, there are structural challenges such as access to schools, mobility of students, and accessibility of the school-building for SWD that limits success of inclusion.

Other challenges involve identifying SWD, and the severity or type of disability. Hindrances may also arise from the attitudes of personnel involved in

educating SWD i.e. teachers and even family members.

It is possible that teachers have low expectations from SWD which in turn can result in their reduced participation for developing learning opportunities for SWD [15]. Thus, it is important to understand the factors affecting such attitudes. Studies have indicated that teachers' attitudes are impacted by beliefs about self-efficacy, their prior training, institutional support, access to professional development training, and severity of the disability of students [16], [17], [18].

Probing in Indian context, Parasuram identified that prior acquaintance with a disabled person was a factor influencing teachers' attitudes [19]. Similarly, Prakash observed variation in attitudes of teachers between government aided and non-government schools [12].

A few other studies suggested a lack of a) teaching resources and b) necessary training as major concerns in teachers with negative attitudes to inclusion [7], [8]. Although proximity with disability in family/friends or type of school are important factors, generalizing the attitudes for all types of disabilities might be an overextension.

There are layers to how each type of disability could influence the disabled person's physical condition, cognition and behavior, and also others' perceptions about such disabilities, and thereby their attitudes. Kakkar has emphasized that severity of disability condition is crucial in exploring teacher attitudes in greater depth [16].

In summary, it is possible that attitudes may be sensitive to the types of disabilities, therefore such parsing is relevant and necessary. With this context, we aim to explore following research question:

"If (and how) does the type of disability affect teachers' attitudes in Indian school context?"

3. Method of study

3.1. ATIEIS Survey

We tailored the 'Attitude Towards Inclusive Education Scale' (ATIES) developed by Wilczenski [20] to a 22 statements survey, named as Attitude Towards Inclusive Education in India Scale (ATIEIS, Appendix 1).

The original ATIES scale has 16 statements to be ranked on a Likert scale (1 -strongly disagree to 5 -strongly agree). Of the 16 statements in ATIES, we dropped 2, used 4 as is, adapted 5 with minor changes, made major changes in 5, and added 8 new statements.

The changes in 13 statements were mainly made to adapt them to the Indian context. For example, one of the ATIES survey statement- "students who need an individual functional academic program in everyday reading and math skills should be in

regular classes” was changed to “students who need separate special classes in everyday reading and math skills should be in regular classes” considering personalized attention is attribute of ‘special classes’.

Among the changed statements, 4 statements were phrased negatively to reduce the tendency to agree with given statements. We employed this strategy to reduce response order effect, a common caution in survey tools.

Among the 8 new statements: statement 7 aimed to learn attitudes towards inclusion of students with severe disabilities; statement 15 explored teachers’ perceptions when support is agreed for inclusion implementation. Statement 17 to 22 aimed at learning teachers’ perceptions regarding the consequences of inclusion in their classroom. Statement 2, 5, 8 and 11 focused on different types of disability, and teacher’s opinion about inclusion of these students in the class. The 3 categories and the statements of ATIEIS in each category are listed below.

- Attitude towards inclusion of students with general non-acceptable behavior: (statements 1, 3, 4, 6, 9, 12, 13, 14, 16).
- Attitude towards inclusion of SWD in classroom: (statements 2, 5, 7, 8, 10, 11, 15)
- Perceived effects of inclusion of SWD in classroom: (statements 17, 18, 19, 20, 21, 22).

3.2. Validity tests

The modified scale was validated by 3 education experts and one special educator. It was developed in English and translated to Hindi (national language) and validated by 2 language experts.

We piloted the survey with 10 teachers and received their feedback. The updated version was re-tested with a different sample of 5 teachers. Test-retest reliability conducted after a gap of 21 days was (0.70). The final survey was deployed to 97 middle school teachers.

Our sampling attempted to achieve a mix of teachers from government aided school, special schools and non-government aided schools from Delhi, India. Majority of the teachers (92) filled the Hindi version and the rest (5 teachers) opted for the English version. We also categorized the sample in terms of gender, experience of teaching SWD, and exposure to disability (self, family or acquaintance) as shown in Table 1.

Table 1. Demographic information about the teachers in the survey

Category		
Gender	35 Female	62 Male
Experience of teaching SWD	32 with experience	65 without experience
Exposure to disability (self, family or friends)	30 with exposure	67 without exposure

3.3. Interview data collection and analysis

We conducted 6 semi-structured interviews to gain a better understanding of our attitudinal data by coupling it with the additional dimension of teachers’ perspectives on inclusion in their own classrooms. Interview sampling (Table 2) although small, was purposeful and involved 3 female teachers and 3 male teachers, of whom, 4 worked in government schools (in Delhi) and 2 were from special schools (in Mumbai). Though the interview participants were from 2 cities in different states/geographical parts of India, these cities are somewhat similar in terms of density of population, living standards and urban cultural context. Partly, we also followed snowball sampling with the participants recommending other participants.

Table 2. Details of the interviewed teachers

Gender	Disability	Types of schools	Exposure to PWD	Classes taught	Ages
Males (3) D, E, F	1 had a disability	All worked in government general schools	2 had exposure to PWD	2 taught primary grades 1-5, and 1 taught grades 11-12	30, 50, and 59
Females (3) A, B, C	No disabilities	1 worked in a government school, 2 in special schools	All had exposure to PWD	2 taught primary grades 1-5, and 1 taught grades 1-7	38, 50 and 60

The experience of teaching in class with SWD varied between 0 to 20 years for the teachers. Similarly, their exposure to type of disability was different.

In the interviews, we requested teachers to share their educational backgrounds, knowledge about inclusion, prior training and teaching experiences with SWD and encouraged them to describe and reflect on the instructional practices they follow in their classrooms. Probing questions were asked to ensure the discourse was rich with personal stories and reflections. Interviews were conducted in Hindi/Marathi (regional language), translated and transcribed later. The interview duration was about 60 to 90 minutes. The interview analysis was loosely based on thematic coding done by two authors independently. The inter-rater reliability was between 70 to 90%.

4. Results

4.1. Survey analysis

We calculated mean scores for each ATIEIS statement (Table 3). The scores between 1 and 3 on ATIEIS were considered to indicate a negative attitude while those above 3 were considered as a positive attitude to inclusion. While calculating mean

score, responses to negative statements were considered positive (i.e. disagreeing to a negative sentence is a positive). T-tests were conducted to find the significance of differences in mean scores across the variables.

Analysis of means (depicted in brackets) indicated that teachers were positive to inclusion of students who displayed general non-acceptable behaviors such as failing in exams (4.04), expressing shyness (4.41) or aggression (3.54 and 3.65). Regarding inclusion of SWD, attitudes of teachers varied, depending upon types of disability. Teachers were positive towards inclusion of students having orthopedic disabilities ($M = 3.66 \pm 0.13$), learning ($M = 3.39 \pm 0.12$) or behavioral disabilities ($M = 3.76 \pm 0.11$). But, they were negative to inclusion of students with visual ($M = -2.77 \pm 0.15$), hearing ($M = -2.62 \pm 0.13$) and speech ($M = -2.80 \pm 0.14$) related disabilities.

The total mean values suggested the variation in teachers' attitudes with types of disability. The negativity in case of visual disability was offset by an extremely positive response to the statement, 'With appropriate support all SWD should be in regular classes' ($M = 4.39 \pm 0.08$).

Comparing this contrast, it could be said that teachers' attitudes in a broader lens varied based on the type of disability, particularly more negative for visual disability, while positive attitude about the statement regarding additional support suggest that negativity might be toned down to some extent with right support.

The differing attitudes based on the type of disabilities might be related to teachers' dilemma about how SWD (and other students) would engage with instruction and the environment in inclusive setting and how their own instructional practices might get affected with whatever prior training they have received. To explore this idea further, we parsed how teachers' perceived dynamics in inclusive classrooms later.

Teachers were also positive that inclusion would not have negative effects; i.e. would not result in teaching/learning becoming stressful ($M = 3.56 \pm 0.11$). The mean score suggested a positive attitude that inclusion of SWD would not affect the academic achievement of other students in class ($M = 3.77 \pm 0.12$) and would not divert teachers' attention from other students ($M = 3.39 \pm 0.12$). They also stated that SWD would be accepted by their students ($M = 3.32 \pm 0.11$) and were also sure about their own ability to handle students with orthopedic disabilities in class ($M = 3.23 \pm 0.12$), and students with sensory disabilities ($M = 3.18 \pm 0.13$). These positive attitudes suggest that teachers in an inclusive setting would feel responsible for the whole class. Similarly, their positivity about acceptance of SWD by other students reflects their conscious expectation that peers also sense the shared responsibility of making

a favorable environment for everyone in the classroom. The latter view was supported by teachers' reflections in the interview (discussed in later section).

T-tests indicated a significant difference in attitude of teachers with experience of teaching SWD as compared to one without on 15 of the 22 statements. These differences suggest that teachers without experience of teaching SWD will likely face a greater transition effect when regular classrooms transform to inclusive classrooms. Regarding exposure to disability in family/ friends, there were no significant differences in mean responses, except for one statement. Similarly, t-tests indicated very few significant gender differences with male teachers maintaining more positive attitudes ($M = 3.95$) about the effects of inclusion on the academic achievement of other children as compared to female teachers ($M = 3.46$, t statistic = 2.00, t {df} = 2.00, $p < 0.05$).

5. Interview analysis

5.1. Variation with type of disability

To understand the reasons shaping differing attitudes with respect to the type of disability, we parsed the instructional practices of teachers. A teacher (F) having no experience of teaching SWD held the notion that physical disability only limits students' movement inside the classroom; however, these students still actively participate in discussions on academic topics, so a class involving students having physical disability does not need any instructional changes. Similar views were expressed by teachers having experience of teaching students with physical disabilities. All teachers expressed some concerns about access to school, or to the play areas in school, yet it didn't alter their positivity about the inclusion of physically disabled students. In fact, one teacher mentioned that she had established a norm in her classroom regarding helping the physically disabled student in moving within the school campus.

"In my class, I have recommended them (peers) that they should help XXX (physically disabled student) by taking her to the play area during sports activities every day" (Teacher B)

Another teacher reflected on peers' supportive behavior towards SWD mentioning,

"Those physically disabled students having calipers (or leg braces) require to take extra care while getting up or sitting down. I have seen peers often help such students, may be on humanitarian grounds" (Teacher B)

We also noticed reflections suggesting the severity of physical disability could alter positivity (or negativity) of attitudes to some extent. A teacher having experience with SWD expressed that "access

to classrooms” becomes a greater concern in such cases.

“I have orthopedically challenged students but I can take assistance of parents and school staff to help them to bring the students to my class on third floor. However, it becomes difficult in case of those students whose body is partially paralyzed. For cerebral palsy case, access becomes even more difficult. We don’t enroll such students” (Teacher A)

In a developing country like India, infrastructural changes may not necessarily be the top priority for accepting the philosophy of inclusion, and hence the above quotes encapsulate the complexity of including SWD in the school system.

However, as compared to orthopedic disability, teachers’ having no experience with SWD have more negative attitudes towards inclusion of visual and hearing disability students. A common remark was about “chaos” in the class when there are students with visual and/or hearing impairments. A teacher commented,

“... such children who are unable to hear or speak can learn only through behavioral techniques. I do not feel that he/she will be able to learn more than this” (Teacher F)

Non-experienced teachers associated type of disability with the diverse learning needs of SWD and had reservations about the instructional methods required as indicated in the quote above. However, teachers having experience with SWD had confidence in using and switching between technological devices as needed to facilitate instruction, we discuss this in detail in the following section

5.2. Technology in inclusive classroom

Teachers having experience teaching SWD felt that they could teach the same curricula to all students, including all types of SWD students, by simple instructional alterations achieved through technological support. According to these teachers, the curricula could be homogeneous, but the instructional mode could involve flexibility in inclusive classroom. One teacher expressed,

“...Sometimes I used audio tapes, sometimes I used Braille” (Teacher A)

Another teacher (Teacher B) with experience of teaching to SWD, insisted on making the devices readily available to all SWD students in the classroom.

Experienced teachers additionally relied upon peer support in making inclusive class more successful and emphasized on educating all peers about different tools that SWD students might use in their classroom.

“Whenever I had students with hearing disability in my class, I made sure to provide the information about hearing aids to SWD as well as to other

students. I have also suggested other children to experience the tool so that they are mentally prepared about what kind of help they can offer to SWD, so it naturally takes away the stigma associated with such aids/devices” (Teacher A)

“...if we bring these tools into the classroom then SWD students will learn more” (Teacher B)

“I have a particular system called induction loop in my class. When it is installed in any class, teacher can practically roam around anywhere in the class, and students can hear us clearly. These setups are provided by government to resource teachers, but it requires additional training” (Teacher A)

Experienced teachers portrayed how teachers could select appropriate teaching tools to assist their instruction. For instance, a visual aid including a picture, chart or book could be replaced with audio books, or other advanced technological tools with sound effects and some 3D gimmicks. Overall, inclusive classes are considered more equipped with a technology assisted environment, yet adaptations are made by anticipating support from teachers, peers, and SWD themselves. A few studies on inclusion have reported the effectiveness of audio books and multimedia presentations in an inclusive class [21], [22].

5.3. Concerns about adequacy of inclusive education training

Appropriate training is considered as an important factor for success of inclusion by all (SWD) experienced teachers. In our interviews, we heard a common concern from the experienced participants about inadequacy of training programs for novice teachers. Some expressed their worry about superficial coverage for inclusion related topics in the present teacher training courses; others expressed uncertainty regarding the effectiveness of short training courses.

We include two exemplar excerpts where teachers having experience with SWD, or exposure to disability, share their caution.

“All teachers are interested (in inclusion), it is just that getting sufficient knowledge about it is very important. In B.Ed. (Bachelor of Education) or D.Ed. (Diploma in Education) programs, there is no course of inclusion kind and so there is no possibility of knowledge about inclusion. The government has initiated short workshops where teachers are provided with some information about disabilities and some study material is also provided.” (Teacher A)

“How can a general teacher teach when he does not have a familiarity with sign language? In this 5-day seminar, only minor things are covered. It may change mindsets regarding SWD children, but will not help in actually teaching them.” (Teacher D)

Table 3. Mean scores of ATIEIS survey

Statements in ATIEIS	Gender		Experience of teaching SWD		Exposure to disabilities		Total Mean
	Female (35)	Male (62)	Yes (32)	No (65)	Yes (30)	No (67)	
General non-acceptable behavior: Students							
who fail in exams	3.73+	4.23+	4.25+	3.93+	3.87+	4.10+	4.04
who are shy & withdrawn	4.25+	4.50+	4.63+	4.31+	4.67+	4.30+	4.41
who have language difficulties	3.03+	3.34+	3.56+	3.06+	3.37+	3.20+	3.23
who are verbally aggressive in class	3.20+	3.72+	.97+*	3.32+*	3.40+	3.62+	3.54
who do not follow school rules	3.43+	3.66+	.00+*	3.37+*	3.73+	3.52+	3.58
who are frequently absent	3.20+	3.52+	3.46+	3.36+	3.17+	3.53+	3.40
who are inattentive in class	3.77+	3.92+	3.84+	3.87+	3.80+	3.90+	3.86
who physically harm others	3.57+	3.69+	3.81+	3.57+	3.77+	3.60+	3.65
Inclusion of SWD in classroom: Students							
with orthopedic disabilities	3.5+	3.75+	4.19+*	3.4+*	3.93+	3.53+	3.66
with visual impairments	2.79-	2.72-	3.41+*	2.46-*	3.03+	2.65-	2.77-
who are dependent on others for daily activities	3.00-*	3.79+*	4.16+*	3.18+*	3.73+	3.41+	3.50
with speech disabilities	2.86-	2.77-	3.37+*	2.52-*	2.93-	2.77-	2.80-
who display uncontrolled behavior	3.51+	3.90+	3.97+	3.66+	3.87+	3.71+	3.76
with learning disabilities	3.57+	3.29+	3.78+*	3.20+*	3.43+	3.36+	3.39
with hearing impairment	2.60-	2.64-	3.34+*	2.27-*	2.80-	2.53-	2.62-
with appropriate support, all students should be included	4.37+	4.40+	4.71+*	4.23+*	4.60+	4.20+	4.39
Effect of inclusion of SWD in classroom: Presence of SWD in classrooms							
does not make teaching/ learning stressful	3.28+	3.71+	3.91+*	3.38+*	3.60+	3.53+	3.56
does not affect academic achievement of peers negatively	3.46+*	3.95+*	4.37+*	3.48+*	4.10+	3.64+	3.77
does not divert teacher's attention from peers	3.23+	3.48+	4.00+*	3.09+*	3.87+*	3.21+*	3.39
will be accepted by peers	3.31+	3.32+	3.28+	3.34+	3.23+	3.38+	3.32
Teachers can handle SWD (orthopedic)	3.20+	3.35+	3.62+	3.14+	3.47+	3.24+	3.23
Teachers can handle SWD (sensory + speech)	3.03+	3.26+	3.50+	3.01+	3.23+	3.18+	3.18

Note: +, - sign are for positive/negative attitude; * for $p < .05$.

The excerpts suggest that existing training (described as “limited” in terms of both content, and time) might keep the under-preparedness feelings amongst novice teachers unchanged even after undertaking the training. As a result, irrespective of teachers’ willingness to adapt to inclusion, experienced teachers had their concerns regarding how current training does not prepare teachers for the practical task of teaching in an inclusive setting.

6. Discussions and Conclusions

In India, an initial transition from exclusion to integration has extended to inclusion, and is promoted through legislations, policies and educational support programs, yet policies alone do not ensure a smooth implementation of inclusion.

This study brings deeper understanding of teachers’ attitudes and an influential factor (type of disability) shaping these attitudes in Indian middle school teachers’ context.

We found significant differences in teachers’ attitudes towards inclusion depending on the type and severity of disability; and among teachers with and without experience of teaching SWD. Similar results have been reported by de Boer et al. in the context of primary school teachers, although conducted in other part of world [23]. We did not find any gender bias in teachers’ attitudes towards inclusion. This result resonates with findings reported by Parasuram, and Reusen et al. [19], [17].

Despite the variety of different contexts, there are commonalities in teachers’ attitudes about inclusion of specific type of disabilities worldwide. Anecdotal evidences are reported by Das in recent studies conducted using similar geographical context in India, although the type of disability is not explored to its fullest in the study [8]. Our results show such parsing in terms of type of disabilities is important to understand teachers’ attitudes in a greater depth.

Combining the analysis of attitudes performed using “type of disability” lens on ATIEIS survey with the interviews, we unearthed positive and negative attitudes. The (SWD) experienced teachers were more positive towards inclusion of all SWD (including students with severe sensory and speech disabilities) in regular classes as compared to teachers who lacked such experience. Similar results have been reported by Sharma, Forlin, Loreman and Earle and Prakash [12].

The interviews with (SWD) experienced teachers brought out the importance of specialized technological devices in inclusive classroom, some used by disabled students while others by teachers to cater to diverse learning needs of students through instruction. Teachers not only insisted on making these devices available for SWD, but equally providing a basic (at the least operating) knowledge of it to all students. They reflected that such

initiatives bring ease in collaborative learning efforts among peers, as anxiety about the devices is eliminated and SWD receive direct benefits.

The technological aid helps teachers to maintain homogeneity in curricula in inclusive classroom such that all students essentially learn same topics, and SWD have greater ease in engaging with the curricula and classroom learning environment.

Another factor that came up in the teacher's interviews is their under-preparedness to deal with inclusive classrooms, and this was a major concern raised by teachers having experiences with SWD. They were worried that despite a general readiness of novice teachers to make inclusive education successful, lack of specialized training could impede its practical implementation. Their observations regarding a lack of exposure to inclusion pre-service training, and even unsatisfactory in-service training in some cases could explain reservations of inexperienced teachers about inclusion.

For more effective teacher training, we recommend that teachers with prior experience of inclusive settings be involved in pre-service or in-service teacher training programs so that their positivity towards all type of disabilities and rich experiences with SWD and inclusive setting can be shared with novices.

Opportunities must also be provided to pre-service and in-service teachers to witness actual classrooms where inclusion is working successfully, thus giving scope to highlight best practices in inclusion and case studies of successful implementation in teachers' training curricula.

Suggestions made by experienced teachers, including technology equipped classrooms described in this study have evidential support in making inclusion successful in schools for all type of disabilities. This information will help novice teachers in planning effective inclusive practices. Despite the limitations of smaller sample of interview participants, this message depicting the (SWD) experienced teachers' unique aspects of instruction and philosophy is important for novice teachers, curriculum planners and teacher educators in India.

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9. Appendix I (ATIEIS Survey)

On the blank line, please place the number indicating your reaction to every item according to how much you agree or disagree with each statement. Please provide a number for every item. The level of agreement or disagreement as corresponding to each number is indicated as below:

Strongly agree (5); Agree (4); Disagree somewhat (3) Disagree (2); Strongly disagree (1).

Note: The term regular classes in the scale means the general classes which are taught by general teachers

1. Students who frequently fail in exams should be in regular classes.

2. Students who cannot move without help from others should be in regular classes.

3. Students who are shy and withdrawn should not be in regular classes.

4. Students whose speech is difficult to understand should be in regular classes.

5. Students who cannot read printed words and need to use Braille should be in regular classes.

6. Students who are verbally aggressive toward their peers should not be in regular classes.

7. Students who are dependent on others for daily life activities should be in regular classes.

8. Students who cannot speak and use sign language should be in regular classes.

9. Students who cannot control their behavior and disrupt the classroom activities should be in regular classes.

10. Students who need separate special classes in everyday reading and math skills should be in regular classes.

11. Students who cannot hear conversational speech should be in regular classes.

12. Students who do not follow school rules of conduct should not be in regular classes.

13. Students who are frequently absent from school should be in regular classes.

14. Students who are inattentive in class should be in regular classes.

15. With appropriate support all students with disabilities should be in regular classes.
16. Students who physically harm other students in school should not be in regular classes.
17. Students with disabilities may make classroom teaching and learning stressful.
18. In a regular class with students with disabilities, the academic achievement of other students may get badly affected.
19. In a regular class with students with disabilities, other students may not get proper attention.
20. Students with disabilities may not be accepted by other classmates.
21. Teachers may not be able to handle students with physical disabilities in a regular class.
22. Teachers may not be able to handle students with sensory disabilities in a regular class.