INCLUSIVE EDUCATION IN INDIA: ARE THE TEACHERS PREPARED?

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This study examined the current skill levels of regular primary and secondary school teachers in Delhi, India in order to teach students with disabilities in inclusive education settings. A total of 223 primary school teachers and 130 secondary school teachers were surveyed using a two-part questionnaire. Part-one of the questionnaire collected background information of the respondents. Part-two was a Likert scale which required the teachers to indicate their perceived current skill levels on a list of competencies needed to implement inclusion. Data was analyzed using descriptive statistics and t-tests. The major findings were that nearly 70% of the regular school teachers had neither received training in special education nor had any experience teaching students with disabilities. Further, 87% of the teachers did not have access to support services in their classrooms. Finally, although both primary and secondary school teachers rated themselves as having limited or low competence for working with students with disabilities, there was no statistically significant difference between their perceived skill levels. The implications for teacher training in India are discussed in terms of the different models that can improve teacher quality for inclusive education.

In a country like India the number of the disabled people is so large, their problems so complex, available resources so scarce and social attitudes so damaging, it is only legislation which can eventually bring about a substantial change in a uniform manner. The impact of well-directed legislation in the long run would be profound and liberating (p.273-274). Baquer & Sharma (1997)

The passage of the landmark legislation, The Persons with Disabilities (PWD) Act, 1995 ushered in a new era for the education of children with disabilities in India. A major emphasis of this law was the inclusion and full participation of students with disabilities in regular schools. It guaranteed non-discrimination and removal of barriers, both physical and psychological, to facilitate the inclusion of students with special needs into regular schools. It urged policy makers, educators, parents and other service providers to consider the premise that special education should be seen not only in the context of separate education but also as an integral part of regular education. It aimed for the infusion of a research-based knowledge of special education and the systematic application of sound instructional practices for the education of students with disabilities who are placed in regular education classrooms. Thus the acceptance of social justice, equity and school effectiveness reform literature from the west provided a sound rationale for the inclusion of students with disabilities into mainstream education in India.

Over the last decade, a range of stakeholders advocated for reform to the 1995 Act. A working draft of the PWD Act, 2011 is prepared by the Center for Disability Studies, University of Hyderabad and is due to pass in 2012 (Deccan Herald, Jan. 14, 2012). The changes in the new draft legislation have been made in respect of several areas including right to education and provision for inclusive education. This has arisen because in spite of the effort, actions demanded by the PWD Act 1995, including educational provisions for students with disabilities were still inadequate. Several studies have shown that there is inadequacy of teacher training in India especially pertaining to inclusive

education provisions for all students (Bindal & Sharma, 2010; Sharma & Desai, 2002; Swaroop, 2001). Other studies show that teachers who have received training are still concerned about implementing inclusion (Sharma & Desai, 2002) and yet some are able to translate training into actual instructional practices to promote inclusion of those with disabilities (David & Kuyini, 2012).

However, the inadequacies of the PWD Act, which necessitated the current education reform included limited implementation of the provisions of the Act and a lack of clarity about the conditions under which some services could be provided. In respect of inclusive education, this lack of clarity resulted in confusion about what inclusion meant and the implementation of inclusive education at school and classroom levels. Many regular school teachers were concerned that inclusion might interfere with their ability to teach in the traditional manner i.e. deliver classroom instruction via a didactic approach (Jangira, Singh, & Yadav, 1995). Anecdotal evidence suggested that teachers found it difficult to accept the notion that social skills and peer relationships were equally important as academic subjects in a school relationship. Parents of nondisabled children were reported to believe that inclusion was likely to result in the unintended consequences of limiting their own children's educational opportunities. Were these concerns or barriers to acceptance on the part of these various vested interested groups solely attitudinal? Were they simply logistical problems? Or were they a combination of these two points of view? Whatever they were, one fact loomed large: The Persons with Disabilities Act, 1995 signaled the need for a number of new roles and responsibilities for regular school teachers. Thus, if the spirit and intent of the Act were to be translated into practice, it was expected to positively impact on the delivery of services and the educational status of 12.6 million children with disabilities in India.

A natural corollary of this Act was the expectation that regular classroom teachers would be required to possess the appropriate attitudes, knowledge and skills in order to fulfill their new roles and responsibilities. Romi and Leyser (2006) reported that teachers who are favorably disposed toward the inclusion of students with disabilities in regular education classrooms employ more effective instructional strategies than those who hold negative attitudes. Other researchers have also indicated that there is a positive correlation between supportive attitudes by teachers and enhanced performance by students with disabilities who were included in regular education classrooms (Cook, 2001; Ross-Hill, 2009). Literature indicates that teachers' actions in classrooms are greatly influenced by their knowledge of the learning characteristics of their students and the impact these have on learning processes (Philpott, Furey, & Penney, 2010; Pinar & Sucuoglou, 2011). Regular school teachers are, now, increasingly required to be sensitive to the curricular needs, styles of learning and levels of motivation of students with disabilities. They would be expected to design appropriate learning materials and to adapt instruction to meet the educational needs of students with disabilities. Specifically, they would be required to design, implement and evaluate the educational program which had to be based on the students' assessed needs. They would also be required to participate in Individual Education Program (IEP) meetings and work in partnership with special education teachers, paraprofessionals, parents and other service providers (Ashman & Elkins, 2009). Kochhar & West (1996) emphasize that in inclusive education classrooms regular school teachers are required to teach content differently: it must be integrative, flexible and interdisciplinary. In contrast to traditional, teacher-centered instructional approaches in which the teacher stands in front of the classroom and 'lectures' to the entire class, in the inclusive classroom, the focus shifts from teaching to learning. These authors further suggest that regular classroom teachers are now required to create situations in which active student learning is maximized.

The Council for Exceptional Children (1996) developed and validated a common core of minimum essential knowledge and skills for entry into professional practice in special education. They included: 1. philosophical, historical and legal foundations of special education, 2. characteristics of learners, 3. assessment, diagnosis and evaluation, 4. instructional content and practice, 5. planning and managing the teaching and learning environment, 6. managing student behavior and social interaction skills, 7. communication and collaborative partnerships, and 8. professionalism and ethical practice. Although all the skills in the CEC common core may not be essential for regular classroom teachers, these educators nonetheless need a certain level of proficiency in these skills when students with disabilities are included in their classrooms (Daniels & Vaughn, 1999). Philpott et al. (2011) suggested a number of strategies that regular school teachers would need to accommodate students with disabilities in the regular classroom environment. These include peer tutoring, cooperative learning, mastery learning and applied behavior analysis. The literature also indicates that regular classroom teachers are required to use instructional strategies such as multi-level instruction, differentiated instruction, activity based learning and individualized and adaptive instruction to facilitate special needs students' learning. Thus a new and

extended body of knowledge and skills would be required of all regular school teachers in India if inclusive education programs were to be implemented successfully.

This study continued this research by exploring the perceptions of regular school teachers in India regarding their preparedness for inclusion, who are at the forefront of implementing inclusion programs in their classrooms. The following research questions were the focus of the study:

- 1. What is the perceived current skill level of primary and secondary regular school teachers in Delhi, India in order to work effectively with students with disabilities?
- 2. Are there any significant differences between the perceived current skill levels of primary and secondary school teachers?

Method

Subjects and Settings

A cluster sampling method was used to select participants for this study. The same procedure was repeated twice to select both primary and secondary school participants.

Primary school teachers' selection. There are twelve educational zones in the Municipal Corporation of Delhi (MCD). Of these, three zones namely, South, Central and Shahdara South were selected for this study. These zones were selected as they had a mix of rural and urban schools as well as some schools where an inclusive education program was implemented. The MCD directory showed that there are a total of 477 schools in these three zones. Of these 148 are in the South zone, 133 in the Central zone and 196 are in the Shahdara South zone. All schools in each zone were listed in alphabetical order and then ten schools from each zone were randomly selected for this study. All teachers from the selected schools were then invited to participate in the study. A total of 349 primary school teachers from 30 schools in Delhi were surveyed. Two hundred and twenty three useable questionnaires were returned giving a response rate of 63.77%.

Secondary school teachers' selection. There are nine educational districts in the Directorate of Education (DOE), Delhi. Of these, three districts namely South, South-West and East were selected to be included in this study. These districts were selected as they had a mix of rural and urban schools as well as some schools where an inclusive education program was implemented. The DOE directory showed that there are a total of 321 secondary schools in these three zones. Of these 116 are in the South district, 121 in the South-West district and 84 are in the East district. All schools in each district were listed in alphabetical order and then five schools in each district were randomly selected. All teachers from the selected schools were invited to participate in the study. A total of 318 teachers from 15 schools were surveyed. One hundred thirty useable questionnaires were returned giving a response rate of 40.85%.

Research Design and Instrumentation

A survey design was utilized for this study. A two-part questionnaire was utilized in this study for the collection of data from the respondents.

Part-one of the questionnaire was designed to obtain background information related to the primary and secondary school teachers. Specifically, it asked the respondents about their (a) training received in special education (b) experience in teaching students with disabilities and (c) access to support services such as paraprofessionals (e.g. speech therapist, physiotherapist, occupational therapist etc.), special education teachers and the availability of resource room services.

Part-two of the questionnaire titled Inclusion Competencies of Indian Teachers (ICIT) was a modified version of Essential Teacher Competencies Questionnaire which was developed by Gear and Gable in the USA in 1979. The original questionnaire consisted of 50 items clustered around ten competency categories. All caution was taken to make the instrument responsive to the unique socio-politico-economic and education traditions in India. Terminology was adjusted to align the items to the educational, social and legal systems in India. For example, the term mainstreaming was changed to integration. The instrument was then presented to a panel of experts in the field of special education in India to review the questionnaire items. Suggestions from the experts were reviewed and incorporated to modify the questionnaire. The final survey instrument consisted of 52 items. These items were clustered around the ten competency categories. The survey instrument was a Likert scale where participants responded by indicating 1 = Not at all competent to 4 = Highly competent. The categories were: (1) professional knowledge concerning exceptional children (2) classroom climate of acceptance (3) communication with parents, community and colleagues (4) assessment of students' needs (5) classroom

management (6) goal setting (7) resources for classroom learning (8) instructional techniques (9) personalized curricula (10) evaluation of student progress. Two versions of ICIT questionnaire were made available to the respondents. One was in English and the other one was in Hindi which was produced after a careful translation by two experts in Delhi.

Pilot Testing

The survey instrument was pre-tested on a small population prior to its administration to the population selected for the study. The pilot study was designed to enable the researchers to (a) determine if the items included in the questionnaire would produce data from which conclusions could be drawn to answer research questions (b) produce information which would lead to any improvement of the questionnaire to ensure the overall acceptance of it by the respondents. The pilot group consisted of 22 primary and 16 school teachers from two schools in Delhi. These teachers were asked to critically examine the questionnaire by responding to the following questions:

- (a) Are the competencies listed in the questionnaire, the competencies needed by regular school teachers to work effectively with students with disabilities? What additions, corrections, modifications or deletions could be made?
- (b) Are the directions clear? If not, how can they be improved?
- (c) Is the wording clear? If not, how can it be improved?

Written and verbal feedback was provided by the pilot group. Most of the suggestions were related to unfamiliar concepts, items considered irrelevant to these teachers' classroom situations and items considered too trivial to be included in the survey. The length of the survey was the major concern among the pilot respondents. Suggestions of the pilot group were considered and some minor changes were made to the questionnaire. Most of the changes included rewording and rephrasing of the questionnaire items. No item was added or deleted. The pilot data was not included in final data analysis.

Psychometric Properties of Inclusion Competencies of Indian Teachers (ICIT)

Factor analysis. The ten competency categories of the original questionnaire were developed on the basis of input provided by special education experts in the USA (Gear & Gable, 1979). Two new items were added to the questionnaire as suggested by Indian experts. In order to confirm the suitability of the categories and to provide statistical support for the factors to be used with the revised instrument, the combined data from the study sample (N = 223 primary school teachers and N = 130 secondary school teachers) was subjected to factor analysis. The principal axis factor analysis yielded ten factors with eigenvalues greater than 1 (see Table 1). On rotation, the obtained factors provided some support for the established competency categories of the revised questionnaire in accordance with the responses made by primary and secondary school teachers. Table 1 shows the un-rotated ten factors which accounted for 68% of the variance. It should also be noted that the strong first factor supported the validity of using the total-scale score as well as the ten separate category subtotals.

Reliability testing. DeVellis (2003) suggests that a reliability co-efficient of .70 is satisfactory for research purposes. The reliability analysis of the revised ten-factor scale indicated that ICIT was a reliable measure to identify teachers' current skills levels in competencies. The alpha value for the total scale was .94. In addition, each sub-scale of ICIT has an alpha value of at least .80. Therefore, The total ICIT scale and its ten sub-scales compared well with the accepted standards of reliability (See Table 2).

Results

Analysis of part-one of the questionnaire of primary school teachers indicated that a vast majority of them, 146 (67.59%) had not received any training in special education skills. Further, a greater number of the teachers, 169 (77.88%), indicated that they did not have any experience working with special needs children. These issues were further compounded when 184 teachers (86.38%) reported that they did not have access to support services such as special education teachers, paraprofessionals or resource room services in their schools. Table 3 provides information on primary school teachers' background variables.

Table 1. Principal Axis Factors Un-rotated Solutions: Eigenvalues and Explained Variance

| Factors | Sum Squares of Loading | % Variance | Cumulative % |
|---------|------------------------|------------|--------------|
| 1 | 20.597 | 39.609 | 39.609 |
| 2 | 3.658 | 7.304 | 46.644 |
| 3 | 2.011 | 3.867 | 50.511 |
| 4 | 1.763 | 3.391 | 53.902 |
| 5 | 1.584 | 3.046 | 56.947 |
| 6 | 1.355 | 2.606 | 59.553 |
| 7 | 1.231 | 2.367 | 61.921 |
| 8 | 1.123 | 2.159 | 64.080 |
| 9 | 1.059 | 2.036 | 66.116 |
| 10 | 1.043 | 2.006 | 68.122 |

Table 2. Alpha Values for the ICIT Sub-scales and the Total-scale

| Sub-scales (competency categories) | Alpha |
|------------------------------------|-------|
| Professional Knowledge | .80 |
| Classroom Climate | .86 |
| Collaboration | .87 |
| Assessment | .83 |
| Classroom Management | .87 |
| Goal Setting | .85 |
| Resource Management | .87 |
| Instructional Techniques | .84 |
| Individualized Instruction | .83 |
| Evaluation | .83 |
| ICIT Total | .94 |

Table 3. Distribution of Primary School Teachers by their Background Variables

| Variable | No. of Respond | No. of Respondents | | |
|---------------------------------|----------------|--------------------|--|-------|
| Training in Special Education | Yes | 70 | | 32.41 |
| • | No | 146 | | 67.59 |
| Experience in Teaching Students | None | 169 | | 77.88 |
| with Disabilities | Under 2 years | 23 | | 10.60 |
| | 3-5 years | 15 | | 6.91 |
| | 6-10 years | 3 | | 1.38 |
| | Over 10 years | 7 | | 3.23 |
| Access to Support Services | Yes | 29 | | 13.62 |
| | No | 184 | | 86.38 |

Similar results were obtained when secondary school teachers' responses were analyzed. Of the total number of respondents only 41 (32.28%) indicated that they had received some training to work with students with disabilities. 80 (62.99%) teachers indicated that they did not have any experience teaching students with disabilities. An overwhelming majority of the teachers, 111 (87.40%) did not have access to support services in their schools. Table 4 provides information on secondary school teachers' background variables.

87.40

Variable No. of Respondents % of Sample 41 Training in Special Education Yes 32.28 No 86 67.72 80 62.99 Experience in Teaching Students None with Disabilities Under 2 years 19 14.96 3-5 years 10 7.87 6-10 years 11 8.66 7 Over 10 years 5.51 Access to Support Services Yes 16 12.60

Table 4. Distribution of Secondary School Teachers by their Background Variables

Part-two of the questionnaire was analyzed to determine teachers' perceived current skill levels. The following procedures were employed to identify the teachers' perceived current skill levels in each of the ten competency categories of ICIT:

No

(a) Means for each of the competency categories were computed by adding the current skill level ratings of teachers for each competency statement in a category and then dividing the total score by the number of items in that category.

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(b) Competency categories were then arranged in rank order from highest to lowest mean scores to indicate the relative current skill levels of the teachers in each category.

A mean score of above 3.0 would indicate that teachers regarded themselves as either moderately or highly competent in that competency. A mean score below 3.0 would indicate that teachers regarded themselves as not competent in that competency. The scoring pattern would be applicable to competency categories as well.

Primary School Teachers' Current Skill Levels

Table 5 shows the means and standard deviations of primary school teachers' perceived skill levels for each of the competency categories of ICIT. The mean and standard deviation for the total ICIT scale are also presented. Ranks were allocated to each category based on the order of the means. Since all of the mean scores are below 3.0, primary school teachers in Delhi rated themselves as not competent in each of the competency category. A total scale-score of 2.40 also supported that notion. In relative terms however, they rated themselves higher in Classroom Climate (rank #1) vs. Professional Knowledge (rank#10). Upon close scrutiny of individual competencies it was found that they indicated their highest perceived current skill level in competency #9 (Provide a warm, supportive classroom climate, mean = 3.01). This was the only competency in which the primary school teachers in Delhi considered themselves to be moderately competent. This was followed by competency #8 (Develop a trusting relationship with students through fairness, consistency and openness, mean = 2.93) which still failed to meet the moderately competent criteria. They indicated their lowest skill level in competency #2 (Compare and contrast various administrative models such as itinerant teachers, resource rooms and special classes for serving students with disabilities, mean = 1.91).

Secondary School Teachers' Perceived Current Skill Levels

Table 6 shows the means and standard deviations of secondary school teachers' perceived skill levels for each of the competency categories of ICIT. The adjusted mean and standard deviation for the total ICIT scale are also presented. Ranks were allocated to each category based on the order of the means. Since all of the mean scores are below 3.0, secondary school teachers in Delhi rated themselves as not competent in each of the competency category. A total scale-score of 2.38 also supported that notion. In relative terms however, they rated themselves higher in Classroom Climate (rank #1) vs. Professional Knowledge (rank#10). This finding was similar to the results obtained for primary school teachers. Upon close

scrutiny of individual competencies, it was found that the secondary school teachers indicated their highest perceived current skill level in competency #9 (Provide a warm, supportive classroom climate, mean = 2.98). Although this result was very close to deem them moderately competent, however failed to meet the criteria by not having a mean of at least 3.0. They indicated their lowest skill level in competency #2 (Compare and contrast various administrative models such as itinerant teachers, resource rooms and special classes for serving students with disabilities, mean = 1.77).

Table 5. Primary School Teachers' Perceived Current Skill Levels

| Competency Category | Mean | SD | Rank |
|----------------------------|------|-----|------|
| Professional Knowledge | 2.18 | .70 | 10 |
| Classroom Climate | 2.79 | .79 | 1 |
| Collaboration | 2.33 | .82 | 5.5 |
| Assessment | 2.24 | .77 | 8 |
| Classroom Management | 2.52 | .74 | 3 |
| Goal Setting | 2.44 | .76 | 4 |
| Resource Management | 2.21 | .74 | 9 |
| Instructional Techniques | 2.59 | .73 | 2 |
| Individualized Instruction | 2.33 | .74 | 5.5 |
| Evaluation | 2.30 | .77 | 7 |
| TOTAL ICIT | 2.40 | .63 | |

Table 6. Secondary School Teachers' Perceived Current Skill Levels

| Competency Category | Mean | SD | Rank |
|----------------------------|------|-----|------|
| Professional Knowledge | 1.97 | .69 | 10 |
| Classroom Climate | 2.67 | .90 | 1 |
| Collaboration | 2.18 | .74 | 8.5 |
| Assessment | 2.18 | .74 | 8.5 |
| Classroom Management | 2.52 | .93 | 3 |
| Goal Setting | 2.38 | .82 | 4 |
| Resource Management | 2.26 | .87 | 7 |
| Instructional Techniques | 2.64 | .73 | 2 |
| Individualized Instruction | 2.37 | .73 | 5 |
| Evaluation | 2.34 | .80 | 6 |
| TOTAL ICIT | 2.38 | .60 | |

Differences in Perceived Skill Levels of Primary vs. Secondary School Teachers

Differences between mean ratings for primary and secondary school teachers' perceived current skill levels in each of the ten competency categories of ICIT were subjected to t-tests. The results indicated that significant differences did not exist between primary and secondary school teachers' perceived current skill levels in all competency categories but one, Professional Knowledge (see Table 7). When the total-scale score of ICIT was compared, no significant difference (p>.05) was observed in the perceived current skill levels of the two groups of teachers.

Discussion

The purpose of this study was two-fold. The first-part aimed to identify whether the regular school teachers in Delhi (a) had received training in special education (b) had access to support services and (c) how long they had worked with students with disabilities. The second-part of the study aimed to obtain the perceptions of their skill levels in competencies listed in ICIT.

The results showed that nearly seventy percent of the regular school teachers in Delhi had neither received any training in special education nor had experience teaching students with disabilities. It was even more troubling to see that nearly eighty seven percent of the teachers did not have access to support services in their classrooms. It is therefore not surprising to see teachers rating themselves not competent in each of the ten competency categories. Research indicates that negative attitudes of teachers and their lack of skills impede the successful implementation of inclusive education programs (Scruggs & Mastropieri, 1996, Swaroop, 2001). Experiences from western countries indicate such educational reforms have not been easy to implement. A number of writers (Hargreaves, 1994; Kuyini & Desai, 2007) point out that school systems are particularly resistant to change; resistant to the introduction and

implementation of new ideas especially if they have teachers who do not have appropriate skills and knowledge to implement the desired change.

Table 7. Differences between Means for Primary and Secondary School Teachers' Perceived Current Skill Levels in Competency Categories with Significance Tests

| Competency Category | Primary So | chool | Secondary School | | t |
|----------------------------|------------------|-------|------------------|------|--------|
| | Teachers (N=223) | | Teachers (N=130) | | |
| | M | SD | M | SD | |
| Professional Knowledge | 2.18 | .70 | 1.97 | .69 | 2.76** |
| Classroom Climate | 2.79 | .79 | 2.67 | .90 | 1.25 |
| Collaboration | 2.33 | .82 | 2.18 | .74 | 1.75 |
| Assessment | 2.24 | .77 | 2.18 | .74 | .71 |
| Classroom Management | 2.52 | .74 | 2.52 | .93 | .05 |
| Goal Setting | 2.44 | .76 | 2.38 | .82 | .61 |
| Resource Management | 2.21 | .74 | 2.26 | .87 | 51 |
| Instructional techniques | 2.59 | .73 | 2.63 | .73 | 56 |
| Individualized Instruction | 2.33 | .74 | 2.37 | 2.37 | 55 |
| Evaluation | 2.30 | .77 | 2.34 | .80 | 48 |
| TOTAL ICIT | 2.40 | .63 | 2.38 | .60 | .32 |

^{**} p<.01

Social cognitive theory (Bandura, 2006) suggests that individuals feel threatened and tend to avoid situations in which they are not competent. This notion has been supported by the vast majority of research which indicates that when regular education teachers are not adequately trained to work with students with disabilities, they tend to resist the implementation of inclusive education programs (Bindal & Sharma, 2010; Kuyini & Desai, 2008).

The literature

on effective schooling further indicates that educational change occurs at the classroom level. The classroom teacher is the person in charge and is the catalyst for change at the classroom level. If he or she is not confident in meeting the instructional needs of students with disabilities, the likely success of the program may be placed in jeopardy. The results of this study therefore have important implications for university personnel who are responsible for pre-service and in-service training of regular school teachers in India.

Firstly, university personnel in India who are charged with designing training programs for regular school teachers need to make a concerted effort to review their teacher preparation programs especially in the light of the passage of the PWD Act and the draft amendments. They need to revise existing preservice programs to include more coursework and practicum related to the education of students with special needs. Special emphasis should be placed on those competencies (professional knowledge, assessment, collaboration and evaluation) in which the teachers expressed relatively lower skill levels. Other emerging competencies such as proficiency in the use of assistive technology may also need to be considered for including in teacher training programs.

A critical need, as indicated by this study, is the necessity to bridge the gap between teachers' current skill levels and those needed to implement effective inclusive education programs. Regular school teachers who are already a part of the work force should be provided with adequate opportunities for professional development. In this regard, one shot seminars or workshops would not appear to be the answer. Rather ongoing professional development opportunities should be made available to regular school teachers. Literature has indicated that teachers have benefited from in-service programs which form part of a long term systemic staff development plan rather than from single shot short term programs (David & Kuyini, 2012).

Professional development program planners in India also need to consider 'bottom up' strategy rather than a 'top down' process for the determination of training program content and format. This would not only help to reduce teacher isolation but also make the program more meaningful and relevant for the participants. In recent years there has been a trend away from a narrow control of in-service education programs by school administrators and/or university professors and from the generic information pertinent to a group of teachers to training which is more closely aligned to the expressed needs and preferences of teachers (Sharma & Deppeler, 2005).

Due to the large teacher population and the limited availability of fiscal resources in India, it is further proposed that the training programs for these teachers should be carried out using train-the-trainer model. The first stage, one teacher from each school should be provided with training. Subsequently, this teacher will be required to carry out training programs for all teachers in his/her school. Although this model has been successfully used in India-Australia Training and Capacity Building Program, some (Wedell, 2005) have cautioned that this model does not result in sustainability. Wedell (2005) argues that For educational change to be implemented in classrooms more or less as intended, it is necessary for educational change planners to try to ensure that teachers are supported as fully as possible by their immediate and wider working environments (p. 12). For this reason, policy makers could consider establishing school-based teacher education and professional development programs through which teachers can be trained on the job and within the local context and have the potential to improve quality of teaching in the long term. This is an option for policy makers in India especially given that Article 23L(2) of the draft amended PWD Act, which relates to qualifications of teachers, provides that All educators should be trained to teach a student with disabilities in an inclusive classroom (p. 71). This would improve on teacher competencies for inclusive education across India in a more sustainable way.

A vast majority of respondents (nearly 87%) in this study indicated that they did not have access to support services in their schools. The educational reform literature in special education is unanimous about the availability of support services for the successful implementation of inclusive education programs. A numbers of authors have argued that the provision of adequate support services is synonymous to the implementation of inclusion in regular schools (Bindal & Sharma, 2010; Sharma & Desai, 2002; Singal, 2006). There are obvious implications for the Government of India to make the necessary support services available to regular school teachers if they are to meet the needs of students with disabilities in their classrooms.

Conclusion

In conclusion, while the results of this study provide valuable insights into teachers' readiness to implement inclusive education programs in their schools, they also substantiate the assertion that the solutions for how best to prepare teachers may begin with understanding how teachers' beliefs are integrated within the classroom (Taylor & Sobel, 2001). Future research would need to consider other methods for the determination of teacher readiness such as personal or focus group interviews and classroom observations. Responses from other stakeholders including administrators, teacher educators, special education teachers and parents of students with disabilities would also be helpful in validating the responses obtained from the regular school teachers. Further investigation of the factors which lead to lower perceived skill levels is also required. Factors such as class size, number of students with disabilities in the class, the severity of disabling conditions and support from school personnel may also have an effect on teacher readiness for inclusive education.

References

Ashman, A. & Elkins, J. (2009). *Educating students with diverse disabilities*. French Forest (NSW): Prentice Hall.

Bandura, A. (2006). *Social cognitive theory*. In S. Rogelberg (Ed.). Encyclopedia of Industrial/Organizational Psychology. Beverly Hills: Sage Publications.

Baquer, A. & Sharma, A. (1997). Disability: Challenges vs. response. New Delhi: Concerned Action Now.

Bender, W. N., Vail, C.O., & Scott, K. (1995). Teachers' attitudes toward increased mainstreaming: Implementing effective instruction for students with learning disabilities. *Journal of Learning Disabilities*, 28(2), 87-94.

Bindal, S. & Sharma, S. (2010). Inclusive education in Indian context. *Journal of Indian Education*, 35(4), 34-45.

Buell, M., Hallam, R. & Gamel McCormick, M. (1999). A survey of special and general

education teachers' perceptions and inservice needs concerning inclusion. *International Journal of Disability, Development and Education*, 46(2), 143-156.

Cook, B. G. (2001). A comparison of teachers' attitudes toward their included students with mild and severe disabilities. *The Journal of Special Education*, 34(4), 203-213.

Daniels, V. I. & Vaughn, S. (1999). A tool to encourage best practices in full inclusion. *Teaching Exceptional Children*, 31(5), 48-55.

David, R. & Kuyini, A.B. (2012) Social inclusion: Teachers as facilitators in peer acceptance of students with disabilities in regular classrooms in Tamil Nadu, India. *International Journal of Special Education*, 27(2), 1-12.

Deccan Herald (Jan. 14, 2012). New law soon to replace Persons with Disabilities Act: Govt. URL:http://www.deccanherald.com/content/129195/law-soon-replace-persons-disabilities.html

DeVellis, R. F. (2003). Scale development: Theory and implications. Thousand Oaks: Sage.

Gable, R. K., Pecheone, R. L., & Gillung, T. B. (1981). A needs assessment model for establishing personnel training priorities. *Teacher Education and Special Education*, 4(4), 8-15.

Gear, G. & Gable, R. (1979). Educating handicapped children in the regular classroom: Needs assessment in teacher preparation. *Journal of Research and Development in Education*, 12(4), 36-45.

Jain, S. (2011). Knowledge, attitude and practice of regular school teachers with reference to inclusive education for children with disabilities. *Indian Journal of Community Psychology*, 7(1), 59-64.

Jangira, N. K., Singh, A., & Yadav, S. K. (1995). Teacher policy, training needs and perceived status of teachers. *Indian Educational Review*, 30(1), 113-122.

Kochhar, C. A. & West, L. L. (1996). Handbook for successful inclusion. Gaithersburg, MD: Aspen.

Kuyini, A. B. & Desai, I. (2007). Principals' and teachers' attitudes and knowledge of inclusive education as predictors of effective teaching practices in Ghana. *Journal of Research in Special and Inclusive Education*, 7(2), 104-113.

Kuyini, A. B. & Desai, I. (2008). Providing instruction to students with special needs in inclusive classrooms in Ghana: Issues and challenges. *International Journal of Whole Schooling*, 4(1), 22-39.

Lewin, K. M. & Stuart, J. S. (2003). Researching teacher education: New perspectives on practice, performance and policy, Multi-site Teacher Education Research Project (MUSTER) Synthesis Report, (London, Department of International Development).

Leyser, Y., Zeigler, T. & Romi, S. (2011). Changes in self-efficacy of prospective special and general education teachers: Implication for inclusive education. *International Journal of Disability, Development and Education*, 58(3), 241-255.

Ministry of Law, Justice and Company Affairs (1996). The Persons with Disabilities (Equal Opportunities, Protection of Rights, and Full Participation) Act, 1995, Government of India.

Nevin, A. & Thousand, J. (1986). What the research says about limiting or avoiding referrals to special education. *Teacher Education and Special Education*, 9, 149-161.

Philpott, D. F., Furey, E. & Penney, S.C. (2010). Promoting leadership in the ongoing professional development of teachers: Responding to globalization and inclusion. *Exceptionality Education International*, 20(2), 38-54.

Pinar, E. S. & Sucuoglu, B. (2011). Turkish teachers' expectancies in inclusive classrooms. *Theory and Practice*, 11(1), 395-402.

Romi, S. & Leyser, Y. (2006). Exploring inclusion preservice training needs: A study of variables associated with attitudes and self-efficacy beliefs. *European Journal of Special Needs Education*, 21(1), 85-105.

Ross-Hill, R. (2009). Teacher attitude towards inclusion practices and special needs students. *Journal of research in Special Needs education*, 9(3), 188-198.

Sharma, U. & Deppeler, J (2005) Inclusive Education in India: Challenges and Prospects. *Disabilities Studies Quarterly*, 25, 1.

Sharma, U. & Desai, I. (2002) Measuring concerns about integrated education in India. *The Asia-Pacific Journal on Disabilities*, 5(1), 2-14.

Sharma, U., Moore, D. & Sonawane, S. (2009). Attitudes and concerns of pre-service teachers regarding inclusion of students with disabilities into regular schools in Pune, India. *Asia Pacific Journal of Teacher Education*, 37(3), 319-331.

Singal, N. (2006). Inclusive education in India: international concept, national interpretation. *International Journal of Disability, Development and Education*, 53 (3), 351-369.

Scruggs, T. E. & Mastropieri, M. A. (1996). Teachers' perceptions of mainstreaming/inclusion, 1958-1995: A research synthesis. *Exceptional Children*, 63, 59-74.

Swaroop, S. (2001, Feb.-March). Inclusion and beyond. Paper presented at the North South Dialogue on Inclusive Education, Mumbai, India.The Council for Exceptional Children (CEC). (1996). Core competencies for special educators. Reston, VA: Council for Exceptional Children.

Wedell, M. (2005). Cascading training down into the classroom: The need for parallel planning. *International Journal of Educational Development*, 25(6), 637-651.