

**ATTITUDES OF PRE-SERVICE EDUCATORS TOWARDS
INCLUSIVE EDUCATION**

Principal Investigator

Ms. P.Vijetha
Lecturer-Special Education

Co-investigator

Ms. Prithi Nair
Lecturer-Special Education

Project Assistant

Mr. Lokesh L.

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CHAPTER 1

INRODUCTION

1.0. Introduction

‘Inclusive education’ means children with special needs study along with typically developing children in a regular classroom that adapts and changes to meet the needs of all students in the classroom. Loreman (1999) states “Inclusive education involves students from a wide range of diverse backgrounds and abilities learning with their peers in regular schools that adapt and change the way they work in order to meet the needs of all students”. It is a philosophy that advocates equal access to all educational opportunities for all students including students with special needs. The principle of Inclusive Education was adopted at the world conference on Special needs Education: Access and Quality (Salamanca, Spain, 1994). The idea of Inclusive education is further supported by the UN Standard Rules on the Equalization of Opportunities for Persons with Disabilities proclaiming participation and equality.

Inclusive education is concerned with removing all barriers to learning. It is a strategic approach designed to facilitate successful learning for all children. It does not simply mean to move children from existing special education services to an ordinary classroom. It challenges the prevailing system in terms of physical structures, human resources, curriculum, teaching and learning material, attitudes etc. Inclusive education will not be successful if the existing school systems are not being reformed to make them utmost disabled friendly. It provides an opportunity for planners, designers, policymakers, administrators and implementers to work on and develop the concept of a universal design. According to Salamanca Framework for Action (UNESCO, 1994), *“Inclusive schools must recognize and respond to the diverse needs of their learners, accommodating all learners, regardless of any difficulties of learning differences”*. *Governments to ensure that both initial and in-service teachers training address the provision of Inclusive education”*

1.1.Historical background of Education of children with special needs in India

The genesis of education of children with special needs can be traced to pre-independent India where people with disabilities had educational opportunities and their disability was not a hindrance. However, during the colonial period, parents of children with special needs from urban areas started schools for their children. Since government had no policy on the education of children with disabilities, grants were extended to these private schools. For nearly a century,

these children were educated separately and not as a part of mainstream education as there was a widespread belief that they cannot be educated along with others in regular education set-ups.

After independence, education of children with special needs was not expressed explicitly in the early constitutional provisions except for guaranteeing similar rights for people with disabilities as other members of society. The Education commission of 1966 (Kothari Commission) drew attention to the education of children with disabilities by stressing a common school system open to all children irrespective of caste, creed, community, religion, economic condition and social status. In 1974, for the first time, the necessity of integrated education was explicitly emphasized under the scheme for Integrated Education for Disabled Children (IEDC). Later, the National Policy on Education (NPE, 1986) stressed the 'removal of disparities' in education. In 1987, Project for Integrated Education (PIED) was launched to fulfill the provisions for disabled children in NPE. World Declaration on Education for all adopted in 1990 gave further boost to the various processes already set in motion in the country.

The Rehabilitation Council of India Act 1992 initiated a training program for the development of professionals to respond to the needs of students with disabilities. Persons with Disability Act in 1996 made it mandatory to provide free education to children with disabilities in an appropriate environment until the age of 18 years providing legislative support. National Trust Act (1999) was passed by the government for the welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act for the economic rehabilitation of people with disabilities. These acts were instrumental in bringing about a perspective change/improvement in the attitudes of GOs, NGOs and people with disabilities. In recent times, two major initiatives have been launched by the government for achieving the goals of universalization of elementary education (UEE): the District Primary Education Programme (DPEP) in 1994 and the Sarva Shiksha Abhiyan (SSA) in 2002. Inclusive education is an integral component of SSA.

Programmes launched in the recent past have made only a limited impact in promoting the principle of Inclusive Education. This situation demands a change with focused effort. Inclusive Education is also a development approach seeking to address the learning needs of all children, youth and adults with a specific focus on those who are vulnerable to marginalization and exclusion. The objectives of inclusive education are to educate all children together for their

mutual benefit and to change attitudes towards different children by forming the basics for a ‘just and non-discriminatory’ society which encourages people to live and learn together.

1.2 Review of Related Studies

The available literature in the field related to the study is presented below

1.2.1. Benefits of Inclusive education

In a country as large and diverse as India where large number of children with special needs must be addressed and only with the availability of limited resources, the best option is to promote inclusive education.

Earlier research suggested that there was no clear advantage in segregated special schools socially and academically as in regular classrooms (Dunn, 1968; Wang & Baker, 1986). There is early research evidence that the amount of contact with students without disabilities has been shown to be associated with increases in social skills and reciprocal interaction (Cole & Meyer, 1991), increased achievement of IEP objectives (Brinker & Thorpe, 1984), positive parental expectations and attitudes (Hanline & Halvorsen, 1989), development of friendship and social support networks (Fryxell & Kennedy, 1995) and improved behavioral outcomes (Lee & Odom, 1996) for such students.

(Saint-Laurent, Fournier, & Lessard, 1993), in their study that compared programs for students with moderate mental handicaps, found that students in inclusive classrooms were more attentive and less disruptive than were students in segregated classrooms. In some studies, the rate and type of interactions of students with disabilities with their typical classmates has been found to be statistically correlated with behavioral, communication, social skills, and academic achievement (Hunt, Farron-Davis, Beckstead, Curtis, & Goetz, 1994).

Hunt, Staub, Alwell, & Goetz, (1994) investigated the academic achievement of students with disabilities and found that they could acquire basic common and motor skills through interactions with students without disabilities. Recent research has suggested that inclusive classrooms do not hinder the academic achievement of typical students and may have many social and developmental advantages for students both with and without disabilities (Peltier, 1997; Staub & Peck, 1995). In mainstream classrooms, students with disabilities have the benefit of interacting and observing social and academic behavior of more able students (Elkins, 1998).

1.2.2. Importance of Teacher Education in promoting Inclusive Education

If inclusion has to be successful and to bring the attitude that ‘inclusive education is not an alternative but inevitable’, it requires commitment from a group of stakeholders including government, teacher training institutions, schools, teachers and the school community. In this regard, teacher training institutions have a significant role to play in ensuring teachers have the appropriate attitudes and skills. It is the need of the hour for the training institutions to ensure that pre-service teachers are competent to meet the needs of an increasing range of diverse learners. This has been recommended by many - the Salamanca statement (1994) of the World conference on Special Needs Education Access and Quality states that “*Regular schools with an inclusive orientation are the most effective means of combating discriminatory attitudes and improve efficiency and ultimately, the cost effectiveness of the entire education system*”.

Studies of both pre-service and in-service teacher attitudes towards inclusion of pupils with Special Educational Needs (SEN) in mainstream classrooms have also shown that attitudes were affected by the quality of preparation received. Lambe and Bones, (2006) concluded that improving and increasing training provision at the pre-service phase of teacher education would be the most effective method of promoting better attitudes to inclusion. The increased need for more specialized training and professional support is viewed as critical to the success of inclusive education (Hammond & Ingalls, 2003). For Inclusion to achieve its objectives, education practices must be child-centered (UNESCO, 1994).

1.2.3. Teacher attitudes and Inclusive education

Teachers’ attitudes towards inclusive education are effected by variables such as children’s age, the type of child’s handicap, the level of the handicap, the level of the support the teacher and the students receive from the school and local education authority administration, the support services, their knowledge about inclusion and in-service training courses they can receive (Sari, 2007).

Studies have also shown that attitudes and confidence of teachers vary significantly according to the type and severity of a student’s disability (Avramidis, & Norwich, 2002. Ward, Centre, & Bochner.,1994; Westwood & Graham, 2000). Emotionally and behaviorally disordered students commonly regarded as the most problematic and a potential source of teacher stress (Forlin, 1995).

Teacher's attitudes varied with the type and severity of the student's disability. This is consistent with findings in other studies in many parts of the world (Forlin, Douglas, & Hattie, 1996). In the US, Scruggs and Mastropieri (1996) reviewed the literature on teachers' perceptions of integration and inclusion over the period 1958 to 1995. They reported that about 66% of regular classroom teachers expressed favorable attitudes towards the general concept of inclusion, but less than one third of them believed they had sufficient skills, training, resources or time to implement inclusion effectively.

The success of inclusive education depends heavily on the attitudes of teachers within regular schools towards students with special needs. (Jobe, Rust & Brissie, 1996). There is well-established literature on the link between teacher's beliefs and their actions (Lieber, Capbell, Sandall, Wolfberg, Horn, & Beckman, 1998). Recent research indicated that the success of inclusion programs is dependent on teacher's attitude towards inclusion (Van Reusen, Shoho, & Barker, 2001).

A study by Chopra (2008) on elementary school teachers' attitude towards Inclusive education found that the teachers are aware of inclusion of children with special needs in regular classroom. It also revealed that teachers belonging to rural origin are less positive towards inclusion compared to their urban counterparts. And also female teachers were less positive than their male counterparts towards inclusive education.

1.2.4. Needs for skills for Regular Teachers in Inclusive Education

(Hutchinson, & Martin, 1999) stressed that teachers working in inclusive classrooms need to know how to break complex skills and concepts into small, easy to understand steps, provide immediate feedback to students about accuracy of their work, and conduct instruction in small groups to allow for frequent student-teacher interactions. A study looking at the importance of adapting instruction to the needs of children with disabilities (Federico, Herrold, & Venn, 1999) indicate that teachers need to use a variety of instructional approaches towards meeting individual student needs and learning styles.

The results of previous studies concur with the view that teacher concerns about the inclusion of students with disabilities could stem from the need for additional support resources (Kuester, 2000). Teachers must find out the level of functioning of their students with respect to academics, social and cultural aspects to determine how best learning can be facilitated (Gildner, 2001).

Survey studies have shown that teacher acceptance or resistance to the inclusion or integration of students with disabilities into regular education classrooms is related to the knowledge base and experiences of teachers (Taylor, Richards, Goldstein, & Schilit, 1997).

Among the findings from many studies it is evident that, when first confronted with the prospect of integrating students with disabilities in their own classes, teachers tend to be somewhat negative and uncertain about their own ability to cope, and they often point to lack of personal experience and relevant training (Scruggs & Mastropieri, 1996; Smith, 2000; Vaughn, Schumm, Jallard, Slusher, & Saumell, 1996).

Research suggests that inclusion is more successful when teachers have access to resources such as information about students with particular special needs and the nature of the disability of particular children in their classroom, expert guidance gained through special education teachers and professional development, as well as adequate funding to support adapted instructions in their classrooms (Mastropieri & Scruggs, 2001).

1.2.5. Team work and Inclusive Education

To promote Inclusive Education societal attitudes towards disability are also a hindrance and need to be changed. When school administrators, principals, parents, teachers and student support inclusion is facilitated (Brownell & Pajares, 1999). There is now a need for professionals such as educational psychologists who can coordinate inclusion programmes, communicate with other professionals, teachers, parents and learners through informal and formal consultation and collaboration (Stainback & Stainback, 1990).

A study by Salisbury and McGregor, (2002) suggests that the school principals have an essential role in improving the school environment and in implementing educational policy. A well planned training and professional development programme facilitated by professional, such as an educational psychologist, or school counselor, is essential to support teachers in overcoming doubts and resistance in order to become committed to significant innovation and change and willing to participate in collaborative support teams (Bryant & Land, 1996).

Policy statement and framework for action on special educational needs, adopted by UNESCO (1994), *stated that "schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions and schools have to find ways of successfully educating all children including those who have serious disadvantages and disabilities"*. There is a need for convergence of services in special schools, integrated schools,

home-based services and community-based rehabilitation programs for promoting inclusive education. Al Ghazo & Gaad (2004) stated that if inclusion has to be successful curriculum, teaching methods and leadership roles in the existing school system have to change.

1.2.6. Reasons for positive attitudes.

Harvey (1985) in a Victorian study reported that individuals who have family members or close friends with a disability may hold more positive attitudes toward inclusive education. An analysis of international research indicates that some change in attitude has occurred over the past 10 years, partly as a result of teachers experiencing working with students with special needs and whether they had developed some competencies teaching students with learning difficulties (Clough & Lindsay, 1991). Other studies have indicated that teachers were positive about including only those children whose characteristics were not likely to require extra instructional or management skills on the part of the teacher (Vaughn, Schumm, Jallard, Slusher, & Saumell, 1999).

Carroll, Forlin and Jobling (2003) found that Australian pre-service teachers, who had previous, frequent contact with an individual with a disability, exhibited improved degrees of comfort and coping skills in their perception of people with disabilities. In a comparative study conducted by McLeskey, Waldron, Swanson, and Loveland (2001) found that teachers currently teaching in inclusive school programs have more positive attitude towards inclusion than those teachers who were not teaching in Inclusive School Program.

A reviewed article by Hsien,(2007) on teacher attitudes towards preparation for inclusion, reveal that the general and special education teachers agree on the principle of inclusion, but differ with respect to their perceived efficacy levels and the feasibility of successfully implementing inclusive practices. Both groups of teachers also identified different areas of concerns and needs that should be addressed at the pre-service level. There is some research that indicates that educators with higher qualifications have better attitudes compared to educators with lower education qualifications (Loreman, Earle, Sharma, & Forlin, 2008).

In a study with high school teachers Van Reusen, Shoho, and Barker, (2001) found that positive teacher's attitude about including and teaching students with disabilities in general education classroom was related to the levels of special education training and experience in working with students with disabilities.

Respondents who had undertaken some form of prior training in teaching students with disabilities, appeared to hold more positive attitudes than teachers who had not undertaken such training, this is validated by previous research which found that general education teachers who are trained to cater for students with disabilities in the mainstream classroom, appear to foster more positive attitudes toward inclusive education (Avramidis, Bayliss & Burden, 2000). Studies that have been done which examine teacher's attitudes and concerns towards inclusive education find that successful implementation of any inclusive policy is largely dependent on teacher's positive attitudes about it (Avramidis & Norwick, 2002).

Results from (Leyser, Kapperman, & Keller, 1994) have also found that teachers with 14 years or less teaching experience had a significantly higher positive score in their attitudes to inclusive than those with more than 14 years. They found no significant differences in attitudes to integration among teachers whose teaching experience was between four, five and nine years and ten and 14 years. In the Roberts and Lindsell (1997) study, teachers who taught students with physical disabilities in their class were more positive in their attitudes than teachers with no experience of inclusion. Clough and Lindsay (1991) found that younger teachers and those with fewer years of experience have been found to be more supportive of inclusion.

1.3. Context, need and importance of the study

The need of the hour is to find what is best for the child in every given situation. Most of the mainstream educational set-up fails to meet the needs of the children with special needs and thus exclude them from the regular set-up. It makes no sense to bring them back unless changes have been made. The inclusion of learners with special educational needs in general education is becoming more prevalent (Crawford, Almond, Tindal & Hollenbeck, 2002). If inclusion has to be successful, one of the crucial areas such as educator attitude must be given importance. According to White Paper 6 (2001) educators cannot be expected to facilitate learning in inclusive classrooms if they are not empowered to do so. It should be noted that the *White paper 6: Special Education: Building an inclusive education and training system* acknowledges the significance of empowering the educators. The underlying assumption here is that the professional attitudes play a very important role which may facilitate or constrain the implementation of inclusive education. Clough and Lindsay (1991) provided some evidence that attitudes had shifted in favor of integrating children with special educational needs over past ten years or so.

Although this is such an important area, only few studies have been carried out in India to understand pre-service teachers concerns and preparedness teaching diverse learners. Indeed, this was also highlighted by the Salamanca statement. Such research may have useful implications both for teacher trainers as well as policy makers.

Hence all these indicate and predict the educational authorities and in particular regular class teachers are now required to support students with special needs to ensure that they are able to access the curriculum. As there is pressing need of implementation of inclusive education, it is the obligation of teacher training providers to ensure that teacher trainees acquire the required attitudes towards inclusion.

Most of the newly graduated teachers hardly have the necessary skills to meet the diverse needs of students in their classrooms. While training institutions are increasingly updating their content, a review of the syllabus of B.Ed of University of Mysore reveals only one unit under Paper Educational Psychology where trainees study in brief about special or inclusive education which is inadequate for them to work in inclusive classrooms. In addition, this insufficient training hinders the establishment and success of more inclusive classrooms.

Objectives of the study

Review of related literature indicates an encouraging point of view which helps in identifying the existing attitudes and also other deficits. Following are the specific objectives of the study:

1. To develop an attitude scale for assessing the attitudes of pre-service educators and their teacher educators towards Inclusive education.
2. To administer the attitude scale on the pre-service educators and their teacher educators (Pre-data).
3. To develop resource materials and conduct orientation program to educate pre-service educators and their teacher educators in Inclusive education with the purpose of refining their attitude.
4. To administer the attitude scale on the pre-service educators and their teacher educators (Post-data).

Operational definitions

Attitude: Attitude means according to this study, degree (the scores range) of favorable or unfavorable responses of B.Ed trainee's and their teachers towards Inclusive education.

Pre-service teachers: Pre-service teacher's means according to this study, those who are future teachers and those who are getting trained for the same. For our study we have taken B.Ed teacher trainee's as a sample for data collection.

Inclusive Education: Inclusive education means according to this study that the regular school curriculum, teaching methods, organization, and resources need which has to be adapted quite significantly to ensure that all students, regardless of ability or disability, can participate successfully in the mainstream of education.

CHAPTER 2

METHOD

2.0. Introduction

The method adopted to achieve the objectives is discussed in this chapter. This chapter includes details about the sample, procedure employed for data collection and analysis of the data along with the description of the tool used in the study. The main purpose of this study was to determine the attitudes of pre-service educators and their teacher educators towards inclusive education.

2.1. Participants

1230 number of B.Ed trainees and 116 number of Teacher educators in 13 B.Ed colleges in and around Mysore were selected as participants for the present study. Purposive sampling technique was used. The details of the B.Ed teacher training colleges and participants are given below in the table.

Table 2.0.

The details of B.Ed Colleges, B.Ed Trainees and their Teacher educators

Sl. No.	B.Ed college Name	College Code	Total number in the colleges		Actual number of participants for the study	
			B.Ed trainees	Teacher educators	B.Ed trainees	Teacher educators
1	Amritanandamayi	A	100	10	88	7
2	Chayadevi	C	100	9	78	5
3	Govt B.Ed	G	97	18	90	3
4	Omkarmal somani	O	100	8	81	5
5	Jss college of Education	J	96	8	76	4
6	Moulana Azad	M	70	6	65	0
7	Sharada Vilas	S	100	8	80	0
8	SKMKG college	K	98	10	63	0
9	Vatsalya	V	100	8	76	4
10	Vidya Vikas	VV	100	10	77	0
11	Gurukula	G	70	7	49	0
12	B.G.S B.Ed	B	99	8	88	4
13	Yadatore B.Ed	Y	100	6	58	0

2.2. Description of the 6 phases

Phase I: Selection of B.Ed colleges and Preparation of Attitude scale

During the first phase, 16 B.Ed colleges in and around Mysore were shortlisted to participate in the study and the B.Ed curriculum of University of Mysore was checked. It was found that the pre-service educators are exposed to the concept of Inclusive Education in brief in the Paper titled – ‘*Educational Psychology*’ Unit 4 titled ‘*Learners with special needs*’ (**Appendix I**). In addition, based on the relevant literature for the study, few domains and the statements for the attitude scale had also been prepared.

Phase II: Finalization of B.Ed colleges and Adaptation of attitude scale

During this phase, out of 16 B.Ed colleges, 14 B.Ed colleges which were following University of Mysore B.Ed curriculum were selected for the study. And the other 2 B.Ed colleges have their own curriculum hence they were not selected for the study. Among these 14 colleges one college expressed their unwillingness to participate in the study. Hence totally 13 B.Ed colleges in and around Mysore following B.Ed curriculum of University of Mysore were shortlisted to participate in the study. Totally 1230 B.Ed trainees and 116 teacher educators were selected to participate in the study. Simultaneously, the literature review gave an idea of various scales developed in order to measure attitudes of pre-service educators. Based on SACIE (Sentiments, Attitudes, and Concerns about inclusive Education) by Loreman, Earle, Sharma, & Forlin, 2008) and other relevant literature, the attitude scale for the present study has been adapted.

Phase III: Validation and Finalization of the attitude scale

During this phase, for checking the appropriateness of the adapted attitude scale, it has been given for validation to 12 experts from various fields. The details of the same have been given in the table 2.1.

Table 2.1.

The details of 12 experts for validation of Questionnaire

Sl. No	Particulars	Number
1	Audiologists	03
2	Speech Language Pathologists	03
3	Special Educators	02
4	General Educators	01
5	Clinical Psychologists	03
Total		12

Modifications were made as per their suggestions and the final attitude scale for the study was developed (**Appendix II**). The final attitude scale was also translated in Kannada (**Appendix III**) for collecting data from Kannada medium students.

Phase IV: Collection and Analysis of Pre-data

During this phase, permission was sought from the Principals of B.Ed training colleges to conduct the study at their respective colleges. For collecting pre-data, the final adapted attitude scale has been administered on 968 numbers of trainees and 32 number of teacher educators in 13 B.Ed colleges. The pre-data were analyzed using appropriate statistics. Pre-data was analyzed in order to find out the participants having favorable, neutral and unfavorable attitudes towards inclusive education.

Phase V: Orientation about Inclusive Education

As one of the objectives was to orient teacher trainees and their teacher educators on Inclusive Education, appropriate educative materials on inclusive education to orient the participants were also developed and validated. The details of validation are given in the table.

Table 2.2.

The details of 10 experts for validation of Educative Materials

Sl. No	Particulars	Number
1	Audiologists	02
2	Speech Language Pathologists	02
3	Special Educators	03
4	General Educators	01
5	Clinical Psychologists	02
Total		10

Modifications were made as per their suggestions and the final educative materials were prepared. **(Appendix IV)**

Only Five B.Ed colleges were selected on random basis for orientation program and for distribution of educative materials. Among these 05 B.Ed colleges, out of 366 number of B.Ed trainees, participants with neutral(undecided) and unfavorable attitudes towards inclusive education were only selected for orientation program. Therefore only 249 numbers of participants were orientated on Inclusive Education for one hour duration. Based on educative materials, participants were oriented along with distribution of the educative materials.

Simultaneously, the researcher also checked for the completion of unit 4 '*Learners with special needs*' under the paper titled '*Educational Psychology*' in B.Ed syllabus in these five selected B.Ed colleges.

Phase VI: Collection and Analysis of Post-data

After educating the 249 participants through orientation program, researcher distributed the educative materials. Post-data were collected from 05 B.Ed using the same attitude scale wherein the order of statements was changed to avoid the repetition of responses. Out of 249 participants, post-data were collected from only 217 number of B.Ed. trainees as the remaining 32 B.Ed trainees were absent. The post-data were also analyzed using appropriate statistics.

2.3. Description of the Scale

An adapted version of SACIE (Sentiments, Attitudes, and Concerns about Inclusive Education by Loreman, Earle, Sharma, & Forlin, 2008) was used to collect data from participants. The first section was designed to gather necessary demographic details of the

participants. The second section contained 25 statements and was designed to elicit participants' attitudes towards the inclusion of students with special needs into regular class. All the statements pertain to inclusive education which involves students from a wide range of diverse backgrounds and abilities learning with their peers in regular schools, which adapt and change the way they work in order to meet the needs of all.

2.4. Procedure for collection of data

For the purpose of data collection, permission was sought from the respective Principals of the B.Ed colleges, by highlighting the objectives and purpose of the study. The data from 13 B.Ed colleges was collected separately. The attitude scale for pre-data was administered on selected participants with proper instruction and supervision in one session of one hour duration. After collection of pre-data, an orientation program along with distribution of educative materials was also done for only selected 249 number participants with neutral and unfavorable attitudes in 05 B.Ed. colleges. Later Post-data was also collected in one session of one hour duration. The duration between the orientation program and the post-data collection was one month.

2.5. Procedure for Scoring

The adapted attitude scale for the study is a four point rating scale consisting of both positive and negative statements. The details are given in the following table.

Table 2.3.

Scoring for positive statements.

Sl.No	Rating Scale	Scores
1	Strongly Agree (S.A)	4
2	Agree (A)	3
3	Disagree (D)	2
4	Strongly Disagree (S.D)	1

Table 2.4.

Scoring for Negative statements.

Sl.No	Rating Scale	Scores
1	Strongly Agree (S.A)	1
2	Agree (A)	2
3	Disagree (D)	3
4	Strongly Disagree (S.D)	4

There are totally 25 statements in the attitude scale on a Likert –type classification and the total maximum score is ‘100’ and the minimum score is ‘0’. If the scores fall in the range from ‘0- 40’, it indicates unfavorable attitude, scores falling in the range from ‘41- 65’, it indicates neither favorable nor unfavorable attitude i.e. undecided and the scores falling in the range from ‘66 -100’ indicates favorable attitude towards inclusive education on the attitude scale.

2.6. Analysis of the data

Qualitative and Quantitative analysis was done which aimed at comparing the pre-test and post-test attitude scores. The purpose of such an analysis is to find out the existing attitudes of B.Ed trainees and their teacher educators in various B.Ed colleges and also to find out whether the orientation and educative materials helped in refining the attitudes of B.Ed trainees. The detailed analysis, results and discussion are given in the following chapter.

CHAPTER 3

RESULTS AND DISCUSSION

3.0. Introduction

The results of the study are discussed in this chapter. This chapter includes details about analysis of data in the study. The main purpose of this study was to determine the attitudes of pre-service educators and their teacher educators towards inclusive education.

3.1. Analysis of the data

The following is the pre-data collected from 968 B.Ed trainees and 32 teacher educators from 13 B.Ed colleges. The Quantitative analysis of the data is as follows:

Table 3.1.

Scores of B.Ed trainees on Attitude scale

Scores	Particulars	Total number of participants	Percentage
< 40	Unfavorable attitudes	01	1%
41 - 65	Undecided(neutral)	374	38%
66 - 100	Favorable attitudes	593	61%
Total		968	100%

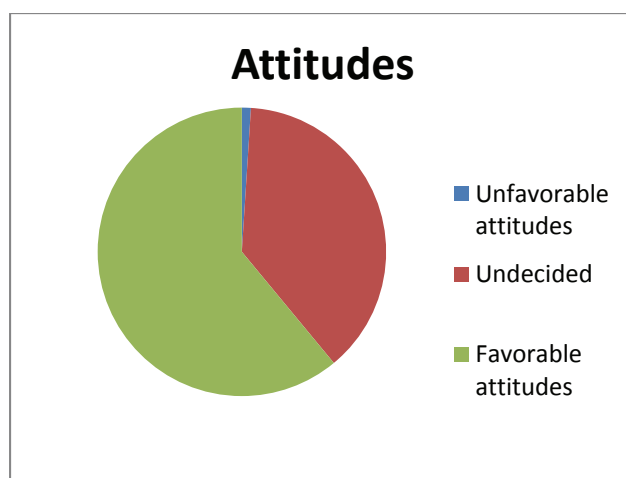


Figure 3.1. Scores of B.Ed trainees on Attitude scale

As can be seen from the table 3.1, overall, preservice educators responded favorably towards inclusive education with regards to the inclusion of children with special needs. It should be noted that studies reviewed reveal both favorable and unfavorable attitudes towards inclusive education. The present investigation confirms the findings of the studies by Davies and Green, 1999; Gordon, 2000; Dada and Alant, 2002; Van Reusen, Shosho & Barker, 2000; Argan, Snow and Swaner, 1999 which indicated that pre-service educators have a positive attitude towards inclusive education.

On the other hand the studies by Crawford, Almond, Tindal and Hollenbeck, (2002) indicated that the majority of teachers shared apprehensions about inclusion of learners with special educational needs. The favorable response 61% towards inclusive education should be viewed with excitement as it appears that inclusive education is perceived as a progressive option. And the reason behind could be their willingness to accept new challenges. And the remaining 1% and 38% revealing unfavorable attitudes and undecided respectively needs attention and measures have to be taken to remove apprehensions about inclusive education.

Table 3.2.

Scores of teacher educators on Attitude scale

Scores	Particulars	Total number of participants	Percentage
< 40	Unfavorable attitudes	01	None
41 - 65	Undecided(neutral)	09	28%
66 - 100	Favorable attitudes	22	72%
Total		32	100%

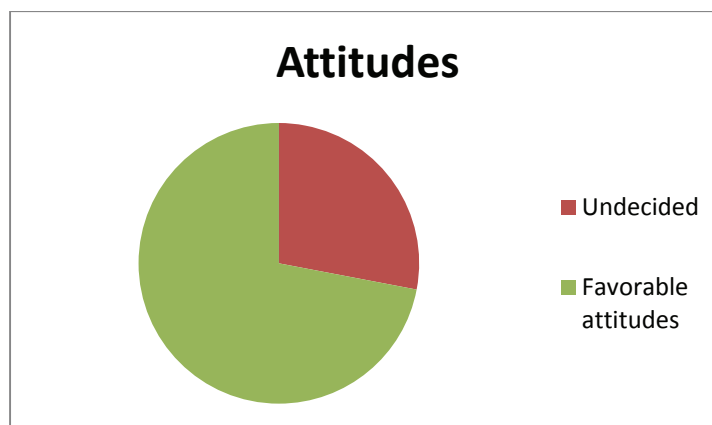


Figure 3.2. Scores of teacher educators on Attitude scale

As can be seen from the table 3.2, among the teacher educators who participated in the study majority were favorable towards inclusive education 72%. The remaining 28% were undecided and this may be attributed to their apprehensions about handling children with special needs in classrooms.

These apprehensions expressed have to be removed slowly, steadily and systematically. If fundamental knowledge and skills to handle children with special needs in classrooms can be taught, there might be more encouragement among teacher trainees and teacher educators in welcoming the concept of inclusive education practically.

3.2. Descriptive Analysis

3.2.1. Scores of Pre-test

The Descriptive Statistics like Mean, Median, Standard Deviation, Skewness and Kurtosis for the Pre-tests scores are given in the table 3.3.

Table 3.3.

Descriptive Statistics of Pre test Scores

Statistical measures	Values
Mean	62.76
Median	63.00
Std. Error of Mean	0.475
Std. deviation	6.993
Skewness	-1.017
Kurtosis	3.036

From the table 3.3, it is observed that the mean value of 62.76 is smaller than the median value of 63.00. It means the large number of B.Ed trainees were having slightly higher attitude towards Inclusive Education. The standard error of the mean is 0.475. It means that the true mean of 62.76 falls in the interval ranging from 61.829 to 63.691. The skewness value is -1.017. It indicates that the given distribution is slightly negatively skewed. From the Figure 3.3., it is observed that the frequency curve is almost normal even though it is having slightly negatively skewed curve.

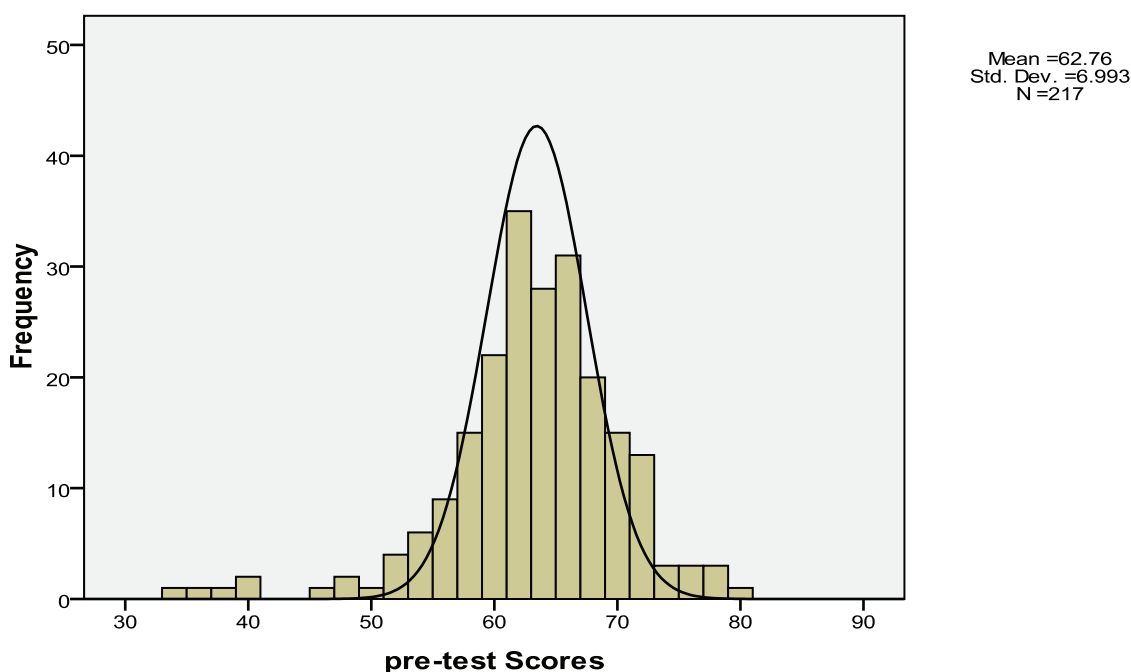


Figure 3.3. Figure showing the descriptive statistics for Pre-test scores.

3.2.2. Scores of Post-test

The Descriptive Statistics like Mean, Median, Standard Deviation, Skewness and Kurtosis for Post-test scores are given in the table 3.4.

Table 3.4.

Descriptive Statistics of Post test Scores

Statistical measures	Values
Mean	66.30
Median	66.00
Std. Error of Mean	0.396
Std. deviation	5.828
Skewness	0.227
Kurtosis	-0.157

From the table 3.4, it is observed that the mean value of 66.30 is slightly higher than the median value of 66.00. The nature of the distribution is very near to the normality. The pretest scores are distributed with a skewed curve. The post test scores are almost normally distributed. The standard error of the mean is 0.396. The skewness value is 0.227 which indicates that the given distribution is slightly positively skewed with almost near to the normal distribution. The Standard deviation of pretest scores is 6.993 and post test scores are 5.828. The variation of the scores is reduced from 6.993 to 5.828. The reduction in the variation among the scores is due to the intervention. This can also be observed in the frequency curve in the Figure 3.4. that the obtained distribution is normal even though it is having slightly negatively skewed curve.

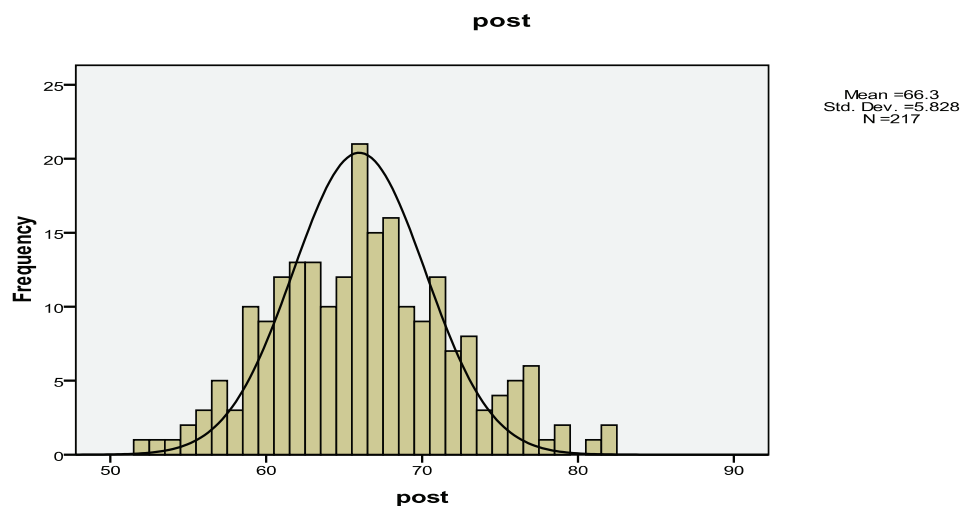


Figure 3.4. Figure showing the descriptive statistics for Post-test scores

3.3. Comparison of Pre and Post test Data.

3.3.1. Comparison of Pre and Post test scores of B.Ed. trainees.

The pre-test and post-test scores are compared to find out if there are any improvements in the attitudes of B.Ed trainees towards inclusive education in five B.Ed colleges. The summary of T-Test results is shown in the table 3.5

Table 3.5.

T-test results of Pre and Post Test of B.Ed trainees.

Group	N	Mean	SD	Correlation	t- value
Pre	217	62.76	6.993	0.051	5.88ns
Post	217	66.30	5.828		

ns = Significant at 0.05 level

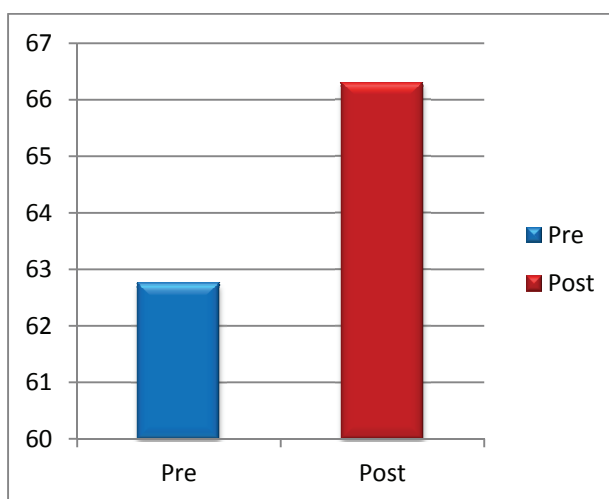


Figure 3.5. Figure showing the Pre and Post-test scores.

The table 3.5 reveals that the calculated t-value for pre and post test scores is 5.88. This value is significant at 0.05 levels. Therefore, it indicates there is a significant difference between pre and post test scores of B.Ed trainees. The mean post test score of 66.30 is significantly higher than the mean pretest score of 62.76. This can also be observed in the Figure 3.5. This difference is due to the experimental intervention. Hence it shows that the orientation program was significantly influencing in promoting favorable attitude towards inclusive education.

3.3.2. Comparison of Pre and post test scores of B.Ed trainees of College 1

The pre-test and post-test scores of college 1 are compared to find out if there are any improvements in the attitudes of B.Ed trainees towards inclusive education. The summary of T-Test results is shown in the following table.

Table 3.6.

T-test results of Pre and Post Test of College 1.

Group	N	Mean	SD	Correlation	t-value
Pre	18	63.11	7.251	0.034	0.861ns
Post	18	64.83	4.668		

Ns = Not Significant at 0.05 level

The table 3.6 reveals that the calculated t-value for pre and post test scores is 0.861. This value is not significant at 0.05 level. Therefore, it indicates there is a hardly any significant difference between pre and post test scores of B.Ed trainees. The mean post test score of 64.83 is very slightly higher than the mean pretest score of 63.11. Hence it shows that the orientation program was not significantly influencing in promoting favorable attitude towards inclusive education.

3.3.3. Comparison of Pre and Post test scores of B.Ed trainees of College 2

The pre-test and post-test scores of college 2 are compared to find out if there are any improvements in the attitudes of B.Ed trainees towards inclusive education. The summary of T-Test results is shown in the following table.

Table 3.7.

T-test results of Pre and Post Test of College 2.

Group	N	Mean	SD	Correlation	t-value
Pre	38	61.63	7.499	0.067	3.366ns
Post	38	67.45	7.078		

ns = Significant at 0.05 level

The table 3.7 reveals that the calculated t-value for pre and post test scores is 3.366. This value is significant at 0.05 level. Therefore, it indicates there is a significant difference between pre and post test scores of B.Ed trainees. The mean post test score of 67.45 is significantly higher than the mean pretest score of 61.63. This difference is due to the experimental

intervention. Hence it shows that the orientation program was significantly influencing in promoting favorable attitude towards inclusive education.

3.3.4. Comparison of pre and post test scores of B.Ed trainees of College 3

The pre-test and post-test scores of college 3 are compared to find out if there are any improvements in the attitudes of B.Ed trainees towards inclusive education. The summary of T-Test results is shown in the following table.

Table 3.8.

T-test results of Pre and Post Test of College 3.

Group	N	Mean	SD	Correlation	t-value
Pre	65	62.65	6.585	0.195	2.788ns
Post	65	65.42	6.021		

Ns= Significant at 0.05 level

The table 3.8 reveals that the calculated t-value for pre and post test scores is 2.788. This value is significant at 0.05 level. Therefore, it indicates there is a significant difference between pre and post test scores of B.Ed trainees. The mean post test score of 65.42 is significantly higher than the mean pretest score of 62.65. This difference is due to the experimental intervention. Hence it shows that the orientation program was significantly influencing in promoting favorable attitude towards inclusive education.

3.3.5. Comparison of pre and post test scores of B.Ed trainees of College 4

The pre-test and post-test scores of college 4 are compared to find out if there are any improvements in the attitudes of B.Ed trainees towards inclusive education. The summary of T-Test results is shown in the following table.

Table 3.9.

Table showing the t-test results of pre and post test of college 4.

Group	N	Mean	SD	Correlation	t-value
Pre	48	63.92	6.147	0.248	2.126ns
Post	48	66.06	5.192		

Ns= Significant at 0.05 level

The table 3.9 reveals that the calculated t-value for pre and post test scores is 2.126. This value is significant at 0.05 level. Therefore, it indicates there is a significant difference between

pre and post test scores of B.Ed trainees. The mean post test score of 66.06 is significantly higher than the mean pretest score of 63.92. This difference is due to the experimental intervention. Hence it shows that the orientation program was significantly influencing in promoting favorable attitude towards inclusive education.

3.3.6. Comparison of pre and post test scores of B.Ed trainees of College 5

The pre-test and post-test scores of college 5 are compared to find out if there are any improvements in the attitudes of B.Ed trainees towards inclusive education. The summary of T-Test results is shown in the table.

Table 3.10.

T-test results of Pre and Post Test of College 5.

Group	N	Mean	SD	Correlation	t-value
Pre	48	62.52	7.882	0.117	3.360ns
Post	48	67.38	5.318		

Ns =Significant at 0.05 level

The table 3.10 reveals that the calculated t-value for pre and post test scores is 3.360. This value is significant at 0.05 level. Therefore, it indicates there is a significant difference between pre and post test scores of B.Ed trainees. The mean post test score of 67.38 is significantly higher than the mean pretest score of 62.52. This difference is due to the experimental intervention. Hence it shows that the orientation program was significantly influencing in promoting favorable attitude towards inclusive education.

3.3.7. Comparison of Pre and post test scores of B.Ed trainees of Five B.Ed colleges

Table 3.11.

T-test results of Pre and Post Test of Five Colleges.

	Group	N	Mean	SD	Correlation	t-value
College I	Pre	18	63.11	7.251	0.034	0.861ns
	Post	18	64.83	4.668		
College II	Pre	38	61.63	7.499	0.067	3.366ns
	Post	38	67.45	7.078		
College III	Pre	65	62.65	6.585	0.195	2.788ns
	Post	65	65.42	6.021		
College IV	Pre	48	63.92	6.147	0.248	2.126ns
	Post	48	66.06	5.192		
College V	Pre	48	62.52	7.882	0.117	3.360ns
	Post	48	67.38	5.318		

Ns =Significant at 0.05 level

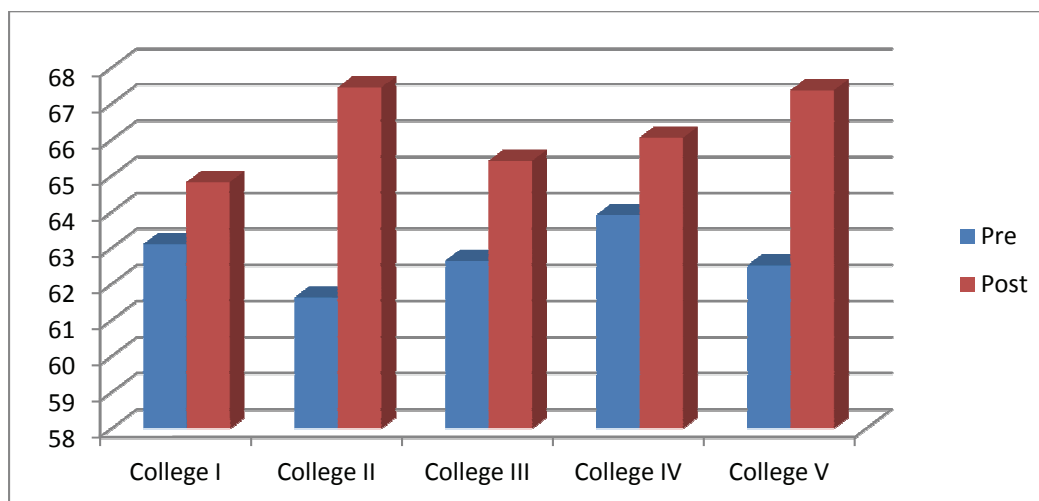


Figure 3.6. Figure showing the Pre and Post-test scores of Five B.Ed colleges.

The table 3.11 reveals the consolidated pre and post scores of Five B.Ed colleges. This can also be observed in the figure 3.5 that there is significant difference between pre and post scores of five B.Ed colleges indicating that the orientation program was significant in promoting favorable attitudes towards inclusive education.

3.4. Discussion

For inclusive education to succeed, it is very important that teachers, principals and other education stakeholders maintain a favorable attitude towards inclusion. They must be firmly convinced of the benefits that inclusive practices bring to all children. Even if inclusive education is made mandatory, it will be successful only when there is enthusiastic support from all education stakeholders. To obtain such support, behavior and attitudinal change are involved which does not happen quickly or easily. It is clear from the preceding discussion that the sampled participants are generally favorable about inclusive education. Pre-service training in inclusive education and continued professional development are of paramount significance if inclusive education is to be successfully implemented. The resourcing of schools is essential if the anxieties around the implementation of inclusive education are to be addressed. The fact that literature seem to reveal both unfavorable and favorable attitudes towards inclusive education is indicative of the fact that a lot of work need to be done nationally. It should be acknowledged that India is one of the leading countries in the world in terms of the implementation of inclusive

education. However, an observation has been made that educators, learners and parents are not fully educated about inclusive education.

Several conclusions can be drawn from this study. Favorable attitudes of B.Ed trainees can be viewed with excitement as they are willing to accept new challenges. But it is not to be forgotten that they expressed unfavorable attitudes and were undecided which might be because of their lack of knowledge and practical exposure to handle children with special needs in inclusive classrooms.

The observation made by the researcher during the process of the orientation and post-data clearly indicate that many of the B.Ed trainees expressed their apprehensions about handling children with special needs in inclusive classrooms. Another important observation was most of the teacher educators of B.Ed trainees in selected B.Ed colleges hardly provided any co-operation in either attending the orientation program or participating in collection of post-data. The reason could be their lack of interest in understanding the importance of the study, either their openness to accept new concept or their professional regular commitments to complete their portions. However this behavior clearly indicates that inclusive education and the teachers attitudes are viewed as least important. Being teachers of the future teachers, they hardly realized the importance of the study about inclusive education in spite of taking appointments prior for orientation program and the post-data collection by the researcher. When teacher educators and their respective colleges themselves are not interested in understanding the importance of inclusive education then how can their students (B.Ed trainees) realize the importance of inclusive education? During the study it was also realized by the investigator that one unit -*Learners with special needs* in one theory paper titled -*Educational Psychology* in B.Ed Syllabus of University of Mysore is hardly sufficient for B.Ed trainees to practically prepare them to handle children with special needs in Inclusive classrooms.

3.5. Conclusion

To conclude, if inclusive education has to be successful three essential components to be considered are - The attitudes of teachers and educations staff, pre-service training programs to help ensure that future generations of teachers enter the profession with skills and knowledge to work in an inclusive environment, and in-service training to improve the capacity of teachers already working in the field. Therefore government has to plan at the teacher training level

itself. Perhaps pre-service years of teacher trainees are a critical period for the modification of teachers' attitudes. Therefore, teacher's education program must focus on promoting favorable attitudes toward inclusion. Many strategies can be used in teachers' education programs to improve pre-service teacher's attitudes toward inclusion. During this study, few of the following strategies have been used by the researcher during the orientation program.

1. Increasing the knowledge base of educators about students with special needs and the ways to meet their learning needs can be a good strategy to promote favorable attitudes towards inclusion.
2. Guest lectures by successful inclusive teachers could be a good strategy to prove that inclusion can result in successful outcomes for all children.
3. Successful students with special needs can also be invited to talk about their successful experiences and to explain how they compensated for their disability.
4. Disability simulation strategies can be used during the teacher training program to enable the teachers to understand and accept individual differences as well as to experience how it feels to have a disability. For example, Pre-service teachers could be asked to blindfold one and walk in the classroom or write a sentence on the black board.
5. Use of films and videos of successful inclusion programs to promote positive attitudes towards inclusion.
6. Finally, teacher education programs must provide an opportunity to interact with individuals with disabilities to make it possible for them to gain an experience with the individual with disabilities.

3.5.1. Limitations of the study

1. Due to paucity time, post-data were collected from only five B.Ed colleges which were selected on random basis.
2. Duration of the orientation program was only for one hour.
3. During the orientation program, very few strategies have been used by the researcher due to lack of time.

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