

Effect of Professional Development Programme on the Attitudes of Pre-service Teachers towards Students with Special Needs

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Abstract

For effective inclusion of students with special needs in general education classrooms, the teacher educators' community must overcome barriers toward inclusion, including existing attitudes. The purpose of this study was to determine the effects of professional development programme on the attitudes of pre-service teachers toward students with special needs. The intervention programme was conducted in six weeks for the pre-service teachers. The sample consisted of 42 pre-service teachers studying bachelor degree programme of special education. Results provided evidence that after receiving professional development programme, pre-service teachers had positive attitudes towards students with special needs. The overall findings suggest that this programme had significant effect on changing the attitude of pre-service teachers towards students with special needs with respect to all the four aspects, i.e. academic, cognitive, emotional and social development of the students.

Introduction

The prime concern of any country is the equal care and attention of its children, including students with special needs. Such ideas led to the emergence of the concept of Inclusive Education for differently abled.

But the effective implementation of this inclusive education has many barriers even in government policy, practice and procedures. The United Nations Educational, Scientific and Cultural Organisation (UNESCO) has highlighted inclusion as a dynamic

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approach of responding positively to pupil diversity and seeing individual differences not as problems, but as opportunities for enriching learning (UNESCO, 2005). For the successful implementation of inclusive education, the actions of teachers, students and all stakeholders must overcome the obstacles of existing attitudes and values; lack of understanding; lack of necessary skills; limited resources; and inappropriate resources (UNESCO, 2005).

Pre-service teachers enter the classroom with their own personal beliefs, attitudes towards inclusion and their new challenging responsibility to teach all students, especially students with special needs. New programmes and policies laid down time to time by apex bodies of higher education of respective state and country expects that all students, including students with disabilities, be educated by highly qualified teachers with positive attitudes towards students and learn free of cost in appropriate educational settings.

Pre-service teachers, have to meet the challenge of providing effective teaching to the students with special needs in a supportive general education learning environment. They were more negative about the impact of children with special needs on other children in the general education classroom (Hastings and Oakford, 2003). But, after experiencing teaching at inclusive classroom, there is better acceptance and understanding of inclusion of students and attitude towards inclusion (Forlin et.al., 2009). Yellen et al. (2003) added that changing the attitudes of

pre-service teachers towards students with special needs would require more than simple exposure and acceptance in the general education classrooms. If students with special needs are to be completely integrated and accepted in the general education classroom, long-term changes in the attitudes of educational professionals would be required. So the present study attempted to find out the effectiveness of professional development programme on the attitude of pre-service teachers.

The purpose of this study was to determine the effects of professional development programme on the attitudes of pre-service teachers towards students with special needs. This intervention programme includes six weeks of professional development programme like participation in seminars, workshops and lectures and other different professional development programmes.

Concept of Inclusive Education

Inclusive education is a pedagogical model which is based on the basic curriculum of psycho-social support to the differently abled child. The philosophy of inclusive education envisions the idea of providing opportunities for students with disabilities to study as equal partners with their classmates without disabilities (Forlin, 2008; Mitchell, 2008). It is found that students with disabilities improved their educational, social and emotional performance after getting appropriate accommodations and proper support in the general classroom (Parua, 2008). Inclusion is the provision of services to students

with disabilities in their neighbourhood schools with necessary support services and supplementary aids for both children and teachers. It means, meeting the needs of children with disabilities for a free and quality public education, in the least restrictive and most effective environment. Thus, an inclusive classroom is one in which the continuing emphasis on valuing individual differences leads all pupils, irrespective of social or cultural background, disability or difficulty in learning, to succeed in terms of the fulfillment of academic and social goals, and the development of positive attitudes to self and others (Alban-Metcalf and Alban-Metcalf, 2001).

Inclusion, thus understood, contributes to a better understanding of education, its purpose and importance. It is most closely connected to educational, cultural and social values. In the same sense, it contributes to the boosting of self-esteem, security and self respects. Inclusive education is the framework "that aims at ensuring that all stakeholders can participate in a meaningful way in this common task, contribute in different ways, and be valued and respected as equal members of the community of the educational institution. As a catalyst for change, inclusive education provides not only for institutional improvement, but also for an increased awareness of human rights and a reduction in discrimination. Essentially, inclusive education involves changes in attitudes, behaviour and ways of working, and has the potential to make an effective starting point to address the right of learners in a range of cultures and

contexts." (Moodley, 2002). Thus a professional development programme was designed in the present study to determine the attitudes of pre-service teachers towards students with special needs.

Attitudes of Pre-service Teachers

The inclusion of learners with special educational needs in general education is becoming more prevalent. As a result, various special education researchers have begun to examine the success of inclusion, as well as the attitude and beliefs of general educators towards the inclusion of learners with disabilities in the general education classroom. Sze (2009) carried a research on pre-service teachers' attitudes towards students with disabilities. The study revealed that the attitude of the general education teacher is one of the most important predictors of successful integration of students with disabilities in general education classrooms. Mdikana et al. (2007) analysed the literature and their study revealed that pre service teachers had positive attitude towards inclusive education. The results of this investigation are significant in the sense that the understanding of pre-service educators' attitudes is critical for the successful implementation of inclusive education (Mowes, 2000).

Dawn (2001) examined the attitudes of teachers towards inclusion. Forty-eight teachers who were enrolled on a Master's programme in Special and Inclusive Education were surveyed via a questionnaire at the beginning and end of a ten-week introductory module. The results indicated overall

attitudinal shift for four categories of inclusion, to suggest more positive attitudes at the end of the module, compared to the beginning. The implications for providers of pre and in-service education and training courses for teachers are discussed.

Wilkins and Nietfeld (2004) compared survey responses of teachers from a reform-based programme focused on promoting inclusion-based classrooms, namely Project WINS (Winning Ideas Network for Schools), schools with teachers from non-Project WINS schools with regard to their attitude about inclusion in the classroom. Surprisingly, the results of this study revealed no differences between the two groups of teachers on most facets of inclusion. The one significant difference found a greater preference for inclusion by non-Project WINS teachers with regard to classroom climate. The study also revealed a higher preference for inclusion of teachers with higher self-reported expertise in special education regardless of what group the teacher was surveyed from. Findings from this study indicate the need for further research and improvements in training methods for Project WINS and similar programmes that attempt to change teachers' attitudes towards inclusion as the first important step in improving practice in inclusion-based classrooms.

Golmic and Hansen (2012) determined the effects of an Included Experience, a special programme on the attitudes, sentiments and concerns of pre-service teachers towards students with exceptional learning needs

after 12 weeks of student teaching in secondary education classrooms. Results provided evidence that after completing an Included Experience, pre-service teachers had positive attitudes and decreased concerns towards inclusion. The overall findings suggest that the Included Experience shows promise as a model that pre-service teachers should follow to support, teach and engage students with exceptional learning needs in general education classrooms.

Forlin et al, (2009) concluded that the personal engagement and involvement in teaching students with disabilities will most likely lead to further acceptance and understanding of inclusion of students with disabilities in general education classrooms and improve attitudes toward inclusion. Yellan et al, (2003) added that changing the attitudes of pre-service teachers towards students with special needs will require more than simple exposure to the students in general education classrooms. If students with special needs are to be completely integrated and accepted in the general education classroom, long-term changes in the attitudes of educational professionals would be required.

Method

Design

Professional Development Programme is a six-week long designed intervention programme for pre-service teachers. Professional development programme includes the following approaches: (1) Teaching approach that consists of identifying elements that affects learning in inclusive setting. (2)

Participation in seminars, workshops and lectures to clarify and address immediate concerns of students with special needs (3) Enhance teacher's competencies in a specific skill area by providing a process of observation, reflection, and action. Each approach is provided to the pre-service teachers in two weeks duration.

After reading and signing the required consent, 42 pre-service teachers agreed to participate. Students were informed that the Attitudes Scale would be used to determine their attitudes towards students with disabilities. After the pre-service teachers completed a pre-experience survey, the intervention programme was conducted. All the students attended an introductory seminar that provided the directions and instructions to receive the intervention programme. Prior to the end of the professional development programme, students were administered the same survey as a post-attitude measure.

Sample

The sample consisted of a total of 42 pre-service teachers from a training college in Odisha including female 57.14 per cent (n=24) and male 42.85 per cent (n=18) student teachers. The student teachers represented a wide range of ages, with 40.47 per cent (n=17) reporting that they were 24 and

below, 26.19 per cent (n=11) falling between the ages of 25-29, and 33.33 per cent (n=14) being 30-35 years old.

Tools

An Attitude scale is prepared and standardised by the investigator for the collection of the data. The statement of the scale is expressing definite favourableness or unfavourableness about students with special needs.

This scale has 40 items/statements spread over in four factors. There is no right or wrong answers to the statements. This scale is designed to understand the differences in individual reactions to various situations. The scale is self administering. The four factors in the test such as academic, cognitive, emotional and social development are mentioned in the table below:

The respondents are required to record their response in five categories i.e., strongly agree, agree, uncertain, disagree and strongly disagree.

Internal consistency reliability coefficients in the current study as measured by Cronbach's coefficient alpha for the pre-test were high for the overall scale ($r = 0.87$) and for the attitude towards Academic Development ($r = 0.43$), Cognitive Development ($r = 0.85$), Emotional Development and Social Development ($r = 0.85$) item subsets on the pre-survey.

Distribution of Items in the Attitude Scale

Sr. No.	Factor	Item Serial Number	Total
1	Academic development	1-10	10
2	Cognitive development	11-20	10
3	Emotional development	21-30	10
4	Social development	31-40	10

Table 1
Significance of Difference between Pre-Test and Post-Test Attitude Scores of Pre-Service Teachers towards Students with Special Needs

<i>Variables</i>	<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>SED</i>	<i>t-ratio</i>	<i>Level of Significance</i>
Attitude towards students with special needs	Pre-test	42	78.68	11.34	2.15	7.60	.01
	Post-test	42	95.02	10.17			

Table value of 82 df At .05 level =1.96
 At .01 level= 2.58

It is revealed from Table 1 that the mean scores of pre-test and post test on the attitude scale of pre-service teachers towards students with special needs are 78.68 and 95.02 with SD's 11.34 and 10.17 respectively. The t-ratio came out from the above two groups is 7.60, which is significant at .01 level of significance. That means there is significant difference between pre-test and post-test scores of pre-service teachers on their attitude towards students with special needs.

Furthermore, it shows that that professional development programme had significant effects on the attitudes of pre-service teachers. Again, from the Figure-1 shown below, the mean post-test score of pre-service teachers was more than the pre-test score. It indicates that teachers who received professional development programme had more favorable attitude towards students with special needs than the teachers who did not receive intervention programme.

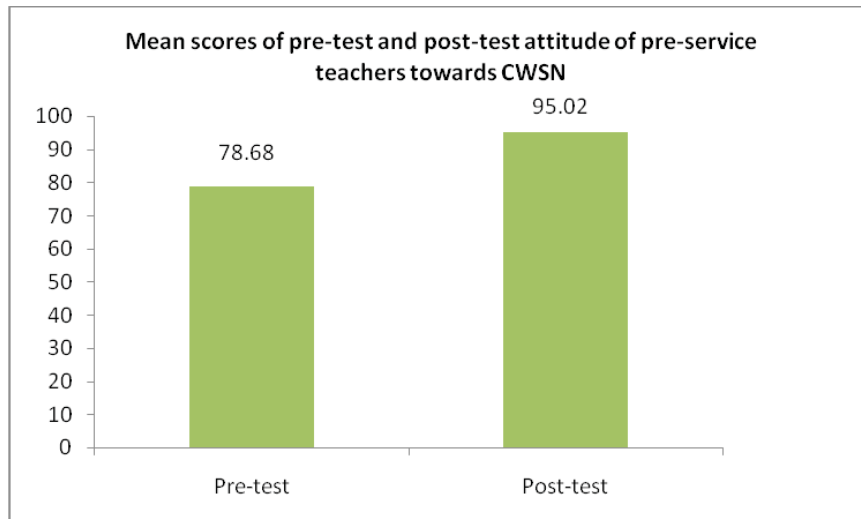


Figure 1

Table 2
Significance of Difference between Pre-Test and Post-Test Attitude Scores of Pre-Service Teachers towards 'Academic Development' of Students with Special Needs

Variables	Group	N	Mean	SD	SED	t-ratio	Level of Significance
Attitude towards students with special needs	Pre-test	42	22.16	6.82	1.35	4.27	.01
	Post-test	42	27.93	5.61			

Table value of 98 df At .05 level =1.96
 At .01 level= 2.58

Table 2 shows that the mean scores of pre-test and post-test of pre-service teachers attitude towards 'academic development' of students with special needs are 22.16 and 27.93 with SD's 6.82 and 5.61 respectively. The t-ratio came out from the above two groups is 4.27, which is significant at .01 level of significance. That means there is significant difference between pre-test and post-test scores of

pre-service teachers on their attitude towards 'academic development' of students with special needs. Further, from Figure 2 we can find that the mean score of post-test was more than the pre-test of teachers. It indicates that teachers included in developmental programme had more favourable attitude towards students with special needs than the teachers not included in professional development programme.

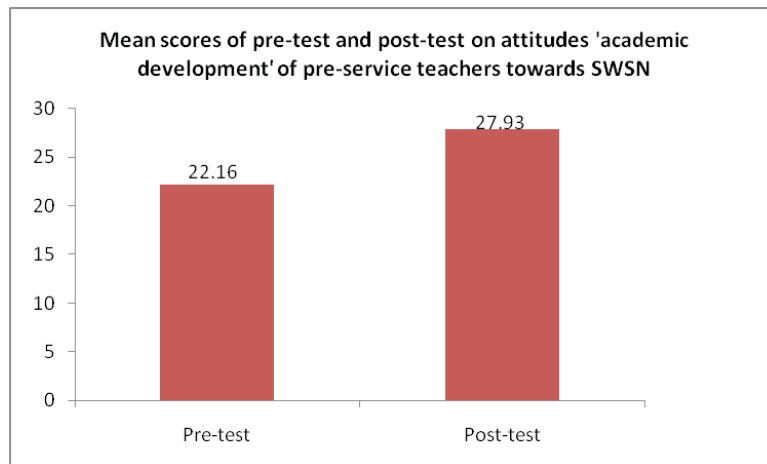


Figure 2

Table 3
Significance of Difference between Pre-Test and Post-Test Attitude Scores of Pre-Service teachers Towards 'Cognitive Development' of Students with Special Needs

Variables	Group	N	Mean	SD	SED	t-ratio	Level of Significance
Cognitive Development	Pre-test	42	16.99	6.14	1.34	3.41	.01
	Post-test	42	21.03	5.87			

Table value of 98 df At .05 level =1.96
 At .01 level= 2.58

Table 3 revealed that the mean scores of pre-test and post-test scores of pre-service teachers on the attitude towards 'cognitive development' of students with special needs are 16.99 and 21.03 with SD's 6.14 and 5.87 respectively. The t-ratio came out from the above two groups is 3.41, which is significant at .01 level of significance. That means there is significant difference between pre-test and post-test scores of pre-service teachers

on their attitude towards Cognitive Development of students with special needs. Further, from Figure 3 we can find that the mean score of post-test was more than the pre-test scores of pre-service teachers. It indicates that professional development programme had significant effect on the attitude of pre-service teachers towards cognitive development of students with special needs students.

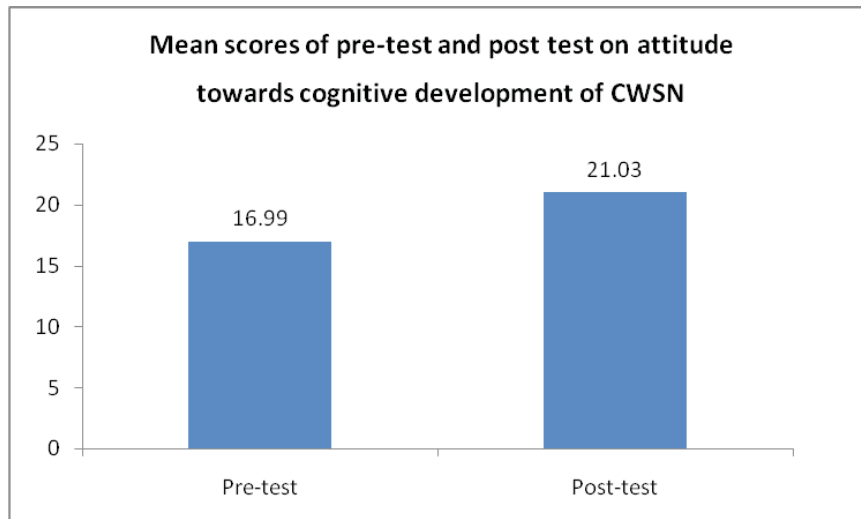


Figure 3

Table 4
Significance of Difference between Pre-Test and Post-Test Attitude Scores of Pre-Service Teachers Towards 'Emotional Development' of Students with Special Needs

Variables	Group	N	Mean	SD	SED	t-ratio	Level of Significance
Emotional Development	Pre-test	90	16.45	6.02	1.18	3.02	.01
	Post-test	90	20.01	5.88			

Table value of 98 df At .05 level =1.96
 At .01 level= 2.58

Table 4 indicates that the mean scores of pre-test and post-test of pre-service teachers on their attitude towards 'emotional development' of students with special needs are 16.45 and 20.02 with SD's 6.02 and 5.88 respectively. The t-ratio came out from the above two groups is 3.02, which is significant at .01 level of significance. That means there is significant difference between pre-test and post-test scores

of pre-service teachers on their attitude towards Emotional Development of students with special needs. Further, from Figure 4 we can find that the mean score of post-test was more than the pre-test mean score of pre-service teachers. It indicates that professional development programme had significant effect on the attitude of pre-service teachers towards 'emotional development' of students with special needs.

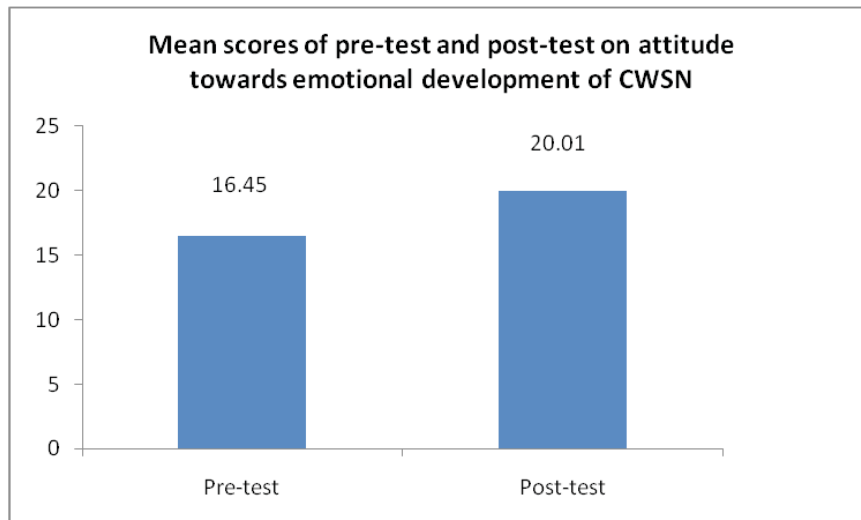


Figure 4

Table 5
Significance of Difference between Pre-Test and Post-Test Attitude Scores of Pre-Service Teachers towards 'Social Development' of Students with Special Needs

Variables	Group	N	Mean	SD	SED	t-ratio	Level of Significance
Social Development	Pre-test	42	23.08	6.02	1.29	2.30	.05
	Post-test	42	26.05	5.88			

Value of 98 df At .05 level =1.96
 At .01 level= 2.58

It is observed from Table 5 that the mean scores of the pre-test and post-test scores of pre-service teachers' attitude towards 'social development' of students with special needs 23.08 and 26.05 with SD's 6.02 and 5.88 respectively. The t-ratio came out from the above two groups is 2.30, which is significant at .05 level of significance. That means there is significant difference between pre-test and post-test scores of pre-service

teachers on their attitudes towards 'social development' of students with special needs. Further, from Figure 5 we can find that the mean score of post-test was more than the pre-test score of pre-service teachers. It indicates that teachers participating in professional development programme had more favourable attitude towards social development of students with special needs than the teachers not participating in the programme.

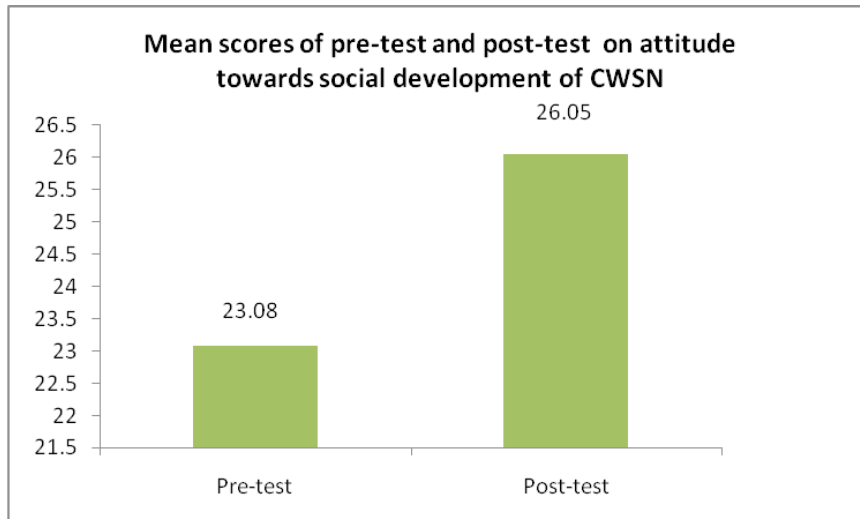


Figure 5

Discussion

The purpose of this study was to determine the effects of a professional development programme on the attitude of pre-service teachers towards students with special needs. Designing a structured professional development programme has encouraged pre-service teachers to teach and support students with exceptional learning needs in inclusive secondary education classrooms. Results of the study show that after participating in the professional development programme, attitudes were even more positive among teachers. Specifically, results of pre-post mean comparisons were statistically significant for all the developmental factors including academic, cognitive, emotional and social.

Pre- and post-survey results provided encouraging evidence that pre-service teachers had positive attitudes towards students with special needs. These results are meaningful because they show that pre-service teachers found the experience of teaching students with special needs more comfortable after their involvement in professional development programme. The findings of this study are consistent with the study by Henning and Mitchell (2002) that reported improved attitudes towards students with exceptional

learning needs when pre-service teachers were required to adapt lessons, reflect on improving their own practices, and collaborate with general education and special education teachers about curriculum.

The findings of improvement in pre-service teachers' attitudes also suggest increased opportunities for pre-service teachers to achieve and apply specific knowledge and skills which are very helpful for the students with special needs.

Future Studies

The sample in this study includes only secondary education pre-service teachers who have received professional development programme. It would be useful to examine the impact of the included experience on the attitude of teachers.

Research has suggested that the attitudes of secondary education teachers are less positive than those of elementary students (McHatton and McCray, 2007). While our data showed positive attitudes from secondary education students both pre and post participation in the professional development programme, it would be useful to compare attitudes of secondary and elementary pre-service teachers.

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