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CONSTRUCTION AND TRYOUT OF INCLUSIVE EDUATION TEACHING APTITUDE TEST

Education

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ABSTRACT

Inclusive education has been started since the last decade in India to break isolation from special and general education and the lead role for the successful implementation of the inclusive education would be teacher. Some studies have been reported that many do not have necessary knowledge, skills and attitudes to carry out the work in inclusive setting (Evans & Lunt, 2002 and Forlin, 2001). A majority of training institutes in India provide limited, if any, information about how to teach Children with Special Needs [CwSN]. Without adequate training, teachers may be resistant to the idea of including CwSN in their classrooms (Sharma, Moore & Sonawane, 2009). Looking at the limitations of general teacher education programmes in preparing teachers for IE, selecting persons with aptitude towards teaching in IE can benefit in making the IE successful. Thus an attempt was made to construct such a test that measure aptitude of pre-service teachers. Inclusive Education Teaching Aptitude Test [IETAT] was constructed and tried out on 38 pre-service teachers. This paper presents the construction of IETAT, methodology used and the result obtained through the hypothesis testing.

KEYWORDS

Inclusive Education, Teaching Aptitude, Construction, Tryout

INTRODUCTION

Inclusive education has been started since the last decade in India to break isolation from special and general education, to bridge the gap between them and to mainstream Children with Special Needs [CwSN] into the general education to learn with their peers. The lead role for the successful implementation of the inclusive education would be teacher because s/he can play crucial role. However many teachers do not have necessary knowledge, skills and attitudes to carry out the work in inclusive setting (Evans & Lunt, 2002 and Forlin, 2001). This may be due to the reason of insignificant progress in teachers' training. A majority of training institutes in India provide limited, if any, information about how to teach SwD. Without adequate training, teachers may be resistant to the idea of including SwD in their classrooms (Sharma, Moore & Sonawane, 2009). Forlin, Douglas & Hattie (1996) and Forlin & Colleagues (2009) argued that the success of mainstreaming is largely dependent on the regular classroom teachers' ability and willingness to make adaptations to accommodate individual differences. In support of this argument, Smith (2000) noted, although positive perceptions and feelings may encourage appropriate policies and supportive integration practices, negative attitudes tend to sustain low achievement expectations and unacceptable behaviour in SwD. So, negative attitude among pre-service teachers, if not addressed during initial teacher education, may continue to hamper the progress of inclusive education efforts in schools (Forlin et. al., 2009). Based on the review of research on pre-service teacher preparation, Caroll, Forlin & Jobling (2003) reported that initial teacher programs tend to overemphasis knowledge acquisition and pay limited attention to practical skills for teaching a diverse range of students, including those with disabilities and therefore the pre-service teachers lack confidence and have negative attitudes to inclusion. Looking at the limitations of general teacher education programmes in preparing teachers for IE, selecting persons with aptitude towards teaching in IE can benefit in making the IE successful.

Recently, RCI implemented All India Online Aptitude Test [AIOAT] for admitting candidates in certificate and diploma level special education course. This AIOAT is meant only for the candidates who opt to be special education teachers. But, the general Teacher Education Institutes [TEIs] are neither conducting a pre-entry level test nor they measure aptitude of the candidates before admitting them into the special B.Ed. course. The aptitude tests constructed so far were developed for the general teaching aptitude and the researcher failed to found any research which focused on teaching aptitude for inclusive education. So an attempt has been made in this direction to construct a test and tryout it to measure pre-service teachers' teaching aptitude towards inclusive education. As the pre-service teachers will carry the responsibility for the implementation of the inclusive education policy within the Indian education system, an understanding about their aptitude for inclusive education will be useful for the teacher educators, stack holders and policy makes involved in the field of inclusive education. The present study explores the pre-service teachers' aptitude towards inclusive education.

STATEMENT OF THE PROBLEM

CONSTRUCTION AND TRYOUT OF INCLUSIVE EDUCATION TEACHING APTITUDE TEST

OBJECTIVES

1. To construct the IETAT.
2. To tryout the constructed IETAT on pre-service teachers.

HYPOTHESES

$H_0$1: There will be no significant difference between mean IETAT score of male and female pre-service teachers.

$H_0$2: There will be no significant difference between mean IETAT score of urban and rural area pre-service teachers.

$H_0$3: There will be no significant difference between mean IETAT score of under-graduate and post-graduate pre-service teachers.

$H_0$4: There will be no significant difference between mean IETAT score of pre-service teachers with different age groups.

$H_0$5: There will be no significant difference between mean IETAT score of pre-service teachers with different stream of study.

METHODOLOGY

Research Design

The present study was survey type in nature.

Population

All the TEIs of Vadodara city were constituted as population for the present study. Also all the pre-service teachers enrolled during the academic year 2016-17 were constituted as the population for the present study. There were two universities having TEIs. Among these two universities, one was general university and other was private. Approximately, 150 students are getting admission in B. Ed. Course every year in these two universities.

Sample

Navrachana University was selected by using lottery method for trying out the constructed IETAT. For the sample of pre-service teachers, all the candidates enrolled in the selected TEI during the academic year 2016-17 were selected as a sample. There were 50 pre-service teachers in the Navrachna University but during the time of data collection, 38 pre-service teachers were present. Thus, final sample size was restricted to 38 pre-service teachers.

Tools

In order to collect the required data, IETAT was constructed based on the review of available literature pertaining to teaching aptitude and

inclusive education. Consultation with the experts the test was finalized. The test will be constructed and tried out as per the following steps:

Step I: Identification of the Dimensions of IETAT

The investigator had reviewed teaching aptitude tests constructed so far in India and literatures on teaching in inclusive classroom and identified a list of factors related to teaching in inclusive education. The prepared list was sent to the 16 experts in the field of inclusive education, teacher education and psychology of education. There were asked to rate the factors that contribute in teaching in inclusive education. They were also requested to add factor(s) that are not covered under the list. Based on the rating of experts five factors viz. Knowledge about inclusive education, perceived ability to identify disabilities, attitude for teaching CwSN, perceived ability to adapt inclusive teaching methods and skills to manage inclusive classroom were identified.

Step II: Development and Selection of the Items for IETAT

With the reference to the identified factors and the nature of the items to be developed, a total of 97 items were worded. The items were referred to the experts for content validity purpose. Lawshe (1975) method was used for measuring Content Validity Index [CVI] of items. Based on the CVI, 28 items were removed and 1 item on universal design of learning was added. Thus a total of 70 items were retained in the IETAT.

Step III: Consultative Meeting with the Experts

After consrtucting the IETAT, the investigator had consulted 16 experts in the field of inclusive education, teacher education and psychology of education. The suggestions of the experts were incoropoated and necessary changes were made and the IETAT was finalized.

Step IV: Tryout of IETAT

After preparing the IETAT, tryout of the testing was done. The test was translated into Gujarati language for ease of administration and removing language barrier. The translated version of the test was referred to 2 experts in the field of Gujarati language for language clarification and accordingly correction were made.

DATA COLLECTION

The investigator collected the required data personnely from the 38 pre-service teachers of the selected TEI. Necessary instruction were given before the implementation of the IETAT. The pre-service teachers were motivated that test results/answeres would not affect their result.

DATA ANALYSIS

The data were analyzed by using mean, SD and t-test.

RESULT

Gender wise Analysis of the Data

Table 1
Mean, SD and t-value of IETAT Scores of Male and Female Pre-service Teachers

Gender	N	Mean	SD	Mean Difference	df	t	Significance Level
Male	5	33.04	4.27	0.13	36	0.06	NS .05
Female	33	33.17	4.49				NS .01

The data presented in the table 1 show that the mean difference in the performance between male and female pre-service teachers comes to be 0.13 and the t-value obtained is 0.06. With the df=36, the table value is 2.03 at 0.05 level and 2.72 at 0.01 level of significance. Thus the obtained t-value does not exceeds the table value of 't' at both the levels of significance. Hence the mean difference between the IETAT scores of male and female pre-service teachers is not significant. Consequently, the hypothesis H01 "There is no significant difference between the mean IETAT scores of male and female pre-service teachers" is retained. Thus the obtained mean significant difference (0.13) between the IETAT scores of male and female pre-service teachers is accidental and not the real one. Therefore the mean IETAT scores of male and female pre-service teachers are assumed to be homogenous.

Habitat wise Analysis of the Data

Table 2
Mean, SD and t-value of Urban and Rural Area Pre-service Teachers

Habitat	N	Mean	SD	Mean Difference	df	t	Significance Level
Urban	34	32.94	4.62	0.66	36	0.28	NS-.05
Rural	4	33.6	4.21				NS-.01

From the table 2 shows it can be seen that the mean difference in the performance between urban and rural area pre-service teachers comes to be 0.66 and the t-value obtained is 0.28. With the df=36, the table value is 2.03 at 0.05 level and 2.72 at 0.01 level of significance. Thus the obtained t-value does not exceeds the table value of 't' at both the levels of significance. Hence the mean difference between the IETAT scores of urban and rural area pre-service teachers is not significant. Consequently, the hypothesis $H_0$2 "There is no significant difference between the mean IETAT scores of urban and rural area pre-service teachers" is retained. Thus the obtained mean significant difference (0.66) between the IETAT scores of urban and rural area pre-service teachers is accidental and not the real one. Therefore the mean IETAT scores of urban and rural pre-service teachers are assumed to be homogenous.

Educational Level wise Analysis of the Data

Table 3
Educational Level wise Comparison of Pre-service Teachers' Performance in IETAT

Educational Level	N	Mean	SD	Mean Difference	df	t	Significance Level
UG	14	34.05	4.73	1.29	36	0.87	NS-.05
PG	24	32.76	4.44				NS-.01

From the data presented in the table 3, it can be observed that the mean difference in the performance between UG and PG pre-service teachers comes to be 1.29 and the t-value obtained is 0.87. With the df=36, the table value is 2.03 at 0.05 level and 2.72 at 0.01 level of significance. Thus the obtained t-value does not exceeds the table value of 't' at both the levels of significance. Hence the mean difference between the IETAT scores of UG and PG pre-service teachers is not significant. Consequently, the hypothesis H02 "There is no significant difference between the mean IETAT scores of UG and PG pre-service teachers" is retained. Thus the obtained mean significant difference (1.29) between the IETAT scores of UG and PG pre-service teachers is accidental and not the real one. Therefore the mean IETAT scores of urban and rural pre-service teachers are assumed to be homogenous.

Age Group wise Comparison of Data

Table 4
Summary of ANOVA for IETAT Scores of Pre-service Teachers' with Different Age Group

Source of Variation	Sum of Square	Df	Mean Square (Variance)	F	P
Between Group	9.162	2	4.581	0.228	0.798
Within Group	704.083	35	20.117		
Total	**713.247**	**37**			

From the table 4, it can be seen that since obtained F value (0.228) is less than the table value F0.05=3.26 and F0.01=5.27 at df=2 and df=35. Thus the obtained value is not significant at both 0.05 and 0.01 level of significance. Hence the null hypothesis "There is no significant difference between the mean score of pre-service teachers with different age group" is retained. Based on this result it can be concluded that there is no significant difference in the aptitude of pre-service teachers of different age group. The difference between the mean IETAT scores of pre-service teachers with different age groups is accidental and not the real one.

Educational Stream wise Comparison of Data

Table 5
Educational Stream wise Comparison of Pre-service Teachers' Performance in IETAT

Source of Variation	Sum of Square	df	Mean Square (Variance)	F	P
Between Group	3.663	2	1.832	0.093	0.912
Within Group	691.153	35	19.747		
Total	964.816	37			

Table 5 shows that since obtained F value (0.093) is less than the table value F0.05=3.26 and F0.01=5.27 at df=2 and df=35. Thus the obtained value is not significant at both 0.05 and 0.01 levels of significance. Hence the null hypothesis "There is no significant difference between the mean score of pre-service teachers with different stream of education" is retained. Based on this result it can be concluded that there is no significant difference in the aptitude of pre-service teachers of different streams. The difference between the mean IETAT scores of pre-service teachers with different streams is accidental and not the real one.

CONCLUSION

The study was carried out to construct and tryout of IETAT on pre-service teachers. The test is first of its kind that measures pre-service teachers' teaching aptitude for inclusive education. The result of the hypotheses testing shows that there are no significant differences in the mean IETAT scores of pre-service teachers of different gender, habitat, educational level, age groups and stream of study. It is recommended that the test should be implemented on large sample and should be placed in market after ensuring its validity and reliability. As there is shortage of trained teachers for inclusive education, admitting persons with teaching aptitude for inclusive education will benefit to the system. Such a test will be useful for TEIs, schools, teachers, teacher educators, stack holders and policy makers.

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