

ISSN 0973-6190

Vol. 52 (No. 3) July - September 2015

Peer reviewed Journal

Quarterly Journal

Journal of
EDUCATIONAL
RESEARCH AND
EXTENSION



SRI RAMAKRISHNA MISSION VIDYALAYA
COLLEGE OF EDUCATION (AUTONOMOUS)

Coimbatore - 641 020

Published by :

Sri Ramakrishna Mission Vidyalaya

College of Education (Autonomous), Coimbatore - 641 020

Phone No.: 0422 - 2692441

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e-mail: srkvcoejere@gmail.com

Printed at :

Ramakrishna Mission Vidyalaya Printing Press

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ICT USAGE AND TEACHER EFFECTIVENESS OF THE TEACHER EDUCATORS IN RELATION TO THEIR QUALIFICATION AND WORKING IN GOVT. AND PRIVATE INSTITUTIONS

1

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INTRODUCTION

The developments in the use of the electronic media have influenced all walks of life, in this way, Education is not exceptional to this. The use of computer and the internet to enhance the quality of education by making to sensitize the students about the paramount importance of acquiring the knowledge and skill of ICT usage. The definition of ICT therefore became the use of information in order to meet human need or purpose including reference to the use of contemporary devices such as the Internet. Teacher educators can also be motivated by learning about new technological skills allow them to break their professional isolation and share everything from lesson plans to the trials of the position with other teachers. Also, teachers can be motivated to learn about technologies if they understand how technology can boost their productivity and improve learning in their classrooms. So this study analyses the level of teacher effectiveness of using ICT among teacher educators with respect to their qualification and working in government and private institutions. Therefore, the researcher has chosen the topic of *“ICT USAGE AND*

TEACHER EFFECTIVENESS OF THE TEACHER EDUCATORS IN RELATION TO THEIR QUALIFICATION AND WORKING IN GOVT. AND PRIVATE INSTITUTIONS” to conduct his study.

NEED OF THE STUDY

Facilitating the acquisition of basic skills and the transmission of basic skills along with concepts that are being termed as the foundation of higher order thinking and creativity, which can be inculcated by ICTs through drill and practice. ICTs have also been used to improve accessibility and the quality of teacher training. For example, institutions like the Cyber Teacher Training Center [CTTC] in South Korea are taking advantage of the Internet to provide better teacher professional development opportunities to in-service teachers.

STATEMENT OF THE PROBLEM

ICT usage and teacher effectiveness drives our nation to the path of the victory. The teacher educators who shapes the student trainees of the next generation to be the best in all aspects. Hence the investigator decided to study the **“ICT usage and Teacher Effectiveness of the Teacher Educators”**.

OBJECTIVES OF THE STUDY

1. To study if there is any significant difference in the usage of ICT among Teacher Educators based on their qualification.
2. To study if there is any significant difference in the usage of ICT between the Teacher Educators working in Government and Private Institutions.
3. To study if there is any significant difference in Teacher Effectiveness based on the Teacher Educators qualification.
4. To study if there is any significant difference in Teacher Effectiveness between the Teacher Educators working in Government and Private Institutions.

HYPOTHESES

1. There is no significant difference in the usage of ICT among Teacher Educators' based on their qualification.
2. There is no significant difference in the usage of ICT between the Teacher Educators working in Government and Private Institutions.
3. There is no significant difference in

Teacher Effectiveness based on the Teacher Educators qualification.

4. There is no significant difference in Teacher Effectiveness between the Teacher Educators working in Government and Private Institutions.

METHODOLOGY

The study was conducted with a sample of 300 Teacher Educators in Chennai Metropolitan City, India, for data collection. The study was conducted through normative survey method. The data thus collected was put into appropriate statistical analysis.

TOOLS USED IN THE STUDY

1. The researcher developed a tool to measure usage of ICT.
2. The teacher effectiveness tool developed by **Rajeshkumar.M & Krishnakumar. R** was used.

TESTING OF HYPOTHESES

Hypothesis 1

There is no significant difference in the Usage of ICT among Teacher Educators based on the Teacher Educator's Qualification

Table 1

Anova showing The 'F' Value for Ict Usage based on The Teacher Educator's Qualification

Source of variation	Sum of squares	Df	Mean squares	'F' value	LS
Between samples	1.1167	3	0.3722	0.00012	NS
Within samples	874529.3	296	2954.49		
Total	874530.417	299	2954.8622		

Inference

From the above table, it is observed that the calculated 'F' value 0.00012 is less than the table value at 0.05 level. Therefore the null hypothesis is accepted. It is concluded that there is no significant difference in the usage of ICT based on Teacher Educator's Qualification.

Hypothesis 2

There is no significant difference in the Usage of ICT between the Teacher Educators working in Government and Private Institutions.

The Mean, SD and t test have been calculated and represented in the below given table

Table 2

Significance of Difference in The Usage of ICT Mean Scores between The Teacher Educators Working in Government and Private Institutions

Variable	Institution	N	Mean	SD	t value	L.S
ICT usage	Government	80	53.7	4.51	0.23	NS
	Private	220	53.5	5.35		

Inference

From the above table, it is observed that the calculated 't' value 0.23 is less than the table value at 0.05 level. Therefore the null hypothesis is accepted. It is concluded that there is no significant difference in the usage of ICT between the Teacher educator

working in government and private institution.

Hypothesis 3

There is no significant difference in Teacher Effectiveness among Teacher Educators based on their Qualification

Table 3

Anova showing the 'F' Value for The Teacher Effectiveness based on their Qualification

Source of variation	Sum of squares	Df	Mean squares	F value	LS
Between samples	19.85	3	6.62	0.05	NS
Within samples	38625.81	296	130.49		
Total	38645.66	299	137.11		

Inference

From the above table, it is observed that the calculated F value (0.05) is less than the table value at 0.05 level

for Teacher Effectiveness among Teacher Educators based on their Qualification

Therefore the null hypothesis is accepted.

Hypothesis 4

There is no significant difference in Teacher Effectiveness between the Teacher

Educators working in Government and Private Institutions.

The Mean, SD and t test have been calculated and represented in the below given table

Table 4

Significance of Difference in Teacher Effectiveness Mean Scores Between The Teacher Educators Working in Government and Private Institutions

Variable	Institution	N	Mean	SD	t value	L.S
Teacher effectiveness	Government	80	118.18	11.21	0.41	Ns
	Private	220	118.79	11.44		

Inference

From the above table, it is observed that the calculated 't' value (0.41) is less than the table value at 0.05 level. Hence it is concluded that there is no significant difference in Teacher Effectiveness between the Teacher Educators working in Government and Private Institutions.

Therefore the null hypothesis is accepted.

FINDINGS

1. There is no significant difference in the usage of ICT among Teacher Educators based on their qualification.
2. There is no significant difference in the usage of ICT between the Teacher Educators working in Government and Private Institutions.
3. There is no significant difference in Teacher effectiveness among Teacher Educators based on their qualification.
4. There is no significant difference in Teacher Effectiveness between the Teacher Educators working in

Government and Private Institutions.

CONCLUSION

Thus, this study reveals that there is no significant difference in the usage of ICT among Teacher Educators in terms of their qualification and also no difference between working in government and private. Besides this study shows that there is no significant difference in teacher effectiveness among teacher educators based on their qualification and working in government and private. Though there is no remarkable differences in usage of ICT of teacher effectiveness teacher educators based on their qualification and working in government and private institutions, they have to undergo in-service refresher and carrier development courses to equip themselves with the latest technologies emerging time by time and disseminate the same to the students.

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AWARENESS AMONG THE PROSPECTIVE TEACHERS TOWARDS THE SALIENT FEATURES OF RIGHT OF CHILDREN TO FREE AND COMPULSORY EDUCATION (RTE) ACT

2

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INTRODUCTION

The Right of Children to Free and Compulsory Education Act or Right to Education Act (RTE), which was passed by the Indian Parliament on 4 August 2009, describes the modalities of the provision of free and compulsory education for children between 6 and 14 in India under Article 21A of the Indian Constitution. India became one of 135 countries to make education a fundamental right of every child when the act came into force on 1 April 2010. Present Act has its history in the drafting of the Indian Constitution at the time of Independence but is more specifically to the Constitutional Amendment that included the Article 21A in the Indian Constitution making Education a Fundamental Right.

SALIENT FEATURES OF RTE ACT

The following are the Special Salient Features of Right of Children to Free and Compulsory Education Act. The areas stated below alone were considered as Salient Features of the present study under RTE Act.

- Free and Compulsory Education to all Children of the age of Six to Fourteen

years, till completion of Elementary stage in a neighborhood school.

- No capitation fee and screen procedure for admission.
- No Child shall be denied admission in a school for lack of age proof.
- No child admitted in a school shall be held back in any class or expelled from school till the completion of elementary education.
- Right of child to seek transfer to any other school.
- There is a fixed student – teacher ratio.
- Provides for 25% reservation for economically disadvantaged communities in all private and minority schools.
- No child shall be subjected to physical and mental harassment.
- No school to be established without obtaining certificate of recognition.
- There is a school management committee which consisting of the elected representatives of the local authority, parents or guardians of children admitted in such school and teachers.

- Passing TET is the qualifying criteria to be appointed as a teacher.
- Mandate improvement in quality education.
- School teachers will need adequate professional degree within five years or else will loss the job.
- Laying down the curriculum and evaluation procedures.
- Prohibition of Private tuition by the teacher.
- School infrastructure to be improved in three years, else recognition cancelled.
- Financial burden will be shared between state and central government on the basis of Sarva Siksha Abiyan.
- Private schools to face penalty for violating RTE.
- Monitoring child rights to education and
- Constitution of State advisory council, among other aspects.

NEED AND SIGNIFICANCE OF THE STUDY

The Right of Children to free and compulsory Education Act is the vital instrument to maintain the quality in education, destroy the disparities among the rural and urban students, poor and rich. The prospective teachers must be aware of the Government Policies and Programmes in the field of Education. When they become a teacher they should follow the rules prescribed by the government to improve and maintain the quality of education. The accountability of the teachers are measured,

monitored and evaluated in an effective way by the education administrators. Hence, the study focuses to find the level of awareness towards the salient features of RTE Act among the prospective teachers in Salem District. The present study will bring out whether the RTE Act has been implemented in an effective manner or any modalities to be needed for the implementation of the Act.

OBJECTIVES OF THE STUDY

- To find out the level of awareness among the prospective teachers towards the salient features of RTE Act with respect to their Gender, Age, locality, Academic stream in the Under Graduation and Annual income of the family.
- To find out the significant difference in their level of awareness among the prospective teachers towards the salient features of RTE Act with respect to their Gender, Age, locality, Academic stream in the Under Graduation and Annual income of the family.

HYPOTHESIS OF THE STUDY

There is no significant difference in the level of awareness among the prospective teachers towards the salient features of RTE Act with respect to their Gender, age, locality, Academic stream in Under Graduation and Annual income of their family.

METHODOLOGY

Survey method was employed in the present descriptive study. Stratified random sampling technique was used. There are 37 B.Ed. Colleges in Salem District. Out

of thirty seven colleges, 10 colleges were selected on random technique.

SAMPLE

The samples of the present study constitute the prospective teachers who have enrolled themselves to get their bachelor of degree in the college of education in Salem District during the academic year 2014-2015. In the selected 10 colleges, each 30 prospective teachers were selected on simple random sampling technique. Altogether 300 prospective teachers were selected as the sample for the study.

TOOL FOR THE DATA COLLECTION

In order to testify the framed objectives and formulated hypotheses of the present study the researcher constructed the self made tool viz., Awareness on salient features of RTE Act Questionnaire. The researcher standardized the tool by consulting with the Educational experts for establishing validity

and conducted a test retest method to find the reliability of the tool. The coefficient correlation of the tool was found to be 0.89.

Scoring procedure: There are 25 questions in the questionnaire. Five point scales was used to measure the level of awareness. The indicators of the tool are very much true, partially true, true to some extent, cannot be decided, not at all true. The scores are allotted 5, 4,3,2,1 respectively. The scores below 40 is treated as low, the scores between 41 to 60 are considered as average level and above 60 was fixed as a high level of awareness.

TESTING THE OBJECTIVES

To find out the level of awareness among the prospective teachers towards the salient features of RTE Act with respect to their Gender, Age, locality, Academic stream in the Under Graduation and Annual income of the family.

Table 1

Table showing the percentage of the samples towards the level of awareness with respect to their demographic variable

Variable	Sub Variable	Level of Awareness		
		High	Average	Low
Gender	Male	*	44	53
	Female	*	31	69
Age	Less than 22 years	*	34	66
	Above 22 years	*	32	68
Locality	Urban	*	29	71
	Rural	*	33	67
Academic stream in UG	Science	*	34	66
	Arts	*	30	70
Annual family Income	Less than Rs.2 Lakhs	*	28	72
	Above Rs.2 Lakhs	*	33	67
Overall Percentage		*	33	67

*indicates no respondent

The above table indicates the percentage analysis of the samples in the level of awareness towards the salient features of RTE Act. In the overall percentage of the level of awareness, the majority of the prospective teachers i.e. 67 percent have low level of awareness. The remaining 33 percentages of them have average level of awareness. It is found that no prospective

teachers have high level of awareness.

HYPOTHESIS TESTING

Null Hypothesis: There is no significant difference in the level of awareness among the prospective teachers towards the salient features of RTE Act with respect to their Gender, age, locality, Academic stream in Under Graduation and Annual Income of their family.

Table 2

T test for the mean scores of awareness among the prospective teachers with respect to their demographic variable

Variable		N	Mean	S.D.	t value	P value	sig
Gender	Male	150	52.70	4.64	1.05	0.29	Not sig
	Female	150	52.14	4.53			
Age	Less than 22 years	179	52.55	4.60	0.63	0.52	Not sig
	Above 22 years	121	52.11	4.59			
Locality	Urban	126	52.55	4.54	0.43	0.66	Not sig
	Rural	174	52.32	4.57			
Academic Stream in UG	Science	136	52.52	4.57	0.35	0.72	Not sig
	Arts	164	52.33	4.61			
Annual Income	Less than Rs.2 Lakhs	216	52.35	4.57	0.41	0.68	Not sig
	Above Rs.2 Lakhs	84	52.59	4.65			

The above table shows the t test for the mean scores of awareness among the prospective teachers with respect to their Gender, Age, locality, Academic stream in Under Graduation and Annual income of their family.

The P value of the samples with respect to their Gender is 0.29. It is greater than 0.05 and it is revealed the there is no significant difference in the mean scores of the male and female prospective teachers.

The P value of the samples with respect to their age is 0.52. It is greater than 0.05

and it is revealed that there is no significant difference in the mean scores of the prospective teachers whose age is less than 22 and more than 22 years.

The P value of the samples with respect to their locality is 0.66. It is greater than 0.05 and it is revealed that there is no significant difference in the mean scores of the urban and urban prospective teachers.

The P value of the samples with respect to their Academic stream in Under Graduation is 0.72. It is greater than 0.05

and it is revealed that there is no significant difference in the mean scores of the science graduates and arts graduate prospective teachers.

The P value of the samples with respect to their annual income of the family is 0.68. It is greater than 0.05 and it is revealed that there is no significant difference in the mean scores of the prospective teachers whose annual income of their family is Rs.2 lakh and above Rs.2 lakhs.

Hence the stated hypothesis “There is no significant difference in the level of awareness among the prospective teachers towards the salient features of RTE Act with respect to their Gender, age locality, Academic stream in Under Graduation and Annual income of their family is accepted.

The prospective teachers do not differ in their level of awareness towards the salient features of RTE Act with respect to their Gender, Age, locality, Academic stream in their Under Graduation and Annual income of their family.

FINDINGS OF THE STUDY

1. The majority of the prospective teachers i.e. 67 percent have low level of awareness. The remaining 33 percentages of them have average level of awareness.
2. It is found that no prospective teacher has high level of awareness.
3. The male and female prospective teachers do not differ in their level of awareness.
4. The prospective teachers do not differ in their level of awareness with respect to their age.

5. The rural and urban prospective teachers do not differ in their level of awareness.
6. The science and arts graduate qualification prospective teachers do not differ in their level of awareness.
7. The prospective teachers do not differ in their level of awareness towards the salient features of RTE Act with respect to their Gender, Age, locality, Academic stream in their Under Graduation and annual income of their family.

CONCLUSION

In order to maintain the quality in education and provide free and compulsory education up to 14 years, the RTE Act was implemented in India. The prospective teachers must understand and equip themselves to be aware of their roles and responsibilities, formation of school management committees and its function, mobilizing the fund to develop the infrastructural facilities, teacher Eligibility test for appointing as teachers, curriculum and its evaluation procedures.

Hence, it is suggested that

- The content of the RTE Act and its implementation procedure may be incorporated in the B.Ed. curriculum.
- Organization of seminars, conference, workshop and symposium may be encouraged.
- The prospective teachers may be instructed to prepare a detailed report on the RTE Act, its implementation procedures, challenges faced by the Headmasters, teachers and the educational authorities.

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EFFECTIVENESS OF INCLUSIVE EDUCATION PROGRAMME AT ELEMENTARY SCHOOL LEVEL

3

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INTRODUCTION

In a report for UNICEF, Bengt Lindqvist, the United Nations Special Rapporteur on Human Rights and Disability, provided the following challenge:

“A dominant problem in the disability field is the lack of access to education for both children and adults with disabilities. As education is a fundamental right for all, enshrined in the Universal Declaration of Human Rights and protected through various international conventions, this is a very serious problem. In a majority of countries, there is a dramatic difference in the educational opportunities provided for disabled children and those provided for non-disabled children. It will simply not be possible to realize the goal of Education for All if we do not achieve a complete change in the situation.”

Addressing this widely recognized need for change, the Dakar Framework for Action adopted a World Declaration on Education for All (EFA) in 2000, which affirmed the notion of education as a fundamental right and established the new millennium goal to provide every girl and boy with primary school education by 2015. EFA

also clearly identified Inclusive Education as one of the key strategies to address the issues of marginalization and exclusion. The fundamental principle of EFA is that all children should have the opportunity to learn. Whereas the fundamental principle of Inclusive Education is that all children should have the opportunity to learn together.

The international community (at least at the policy level) has recognized education as a fundamental child right and has committed to a framework for action to address this right, and to redress exclusion as directed by EFA 2000.

INCLUSIVE EDUCATION: A CONCEPTUAL FRAMEWORK

Inclusion in an educational philosophy aimed at "normalizing" special services for which students qualify. Inclusion involves an attempt to provide more of these special services by providing additional aids and support than by pulling students out rather for isolated instruction. Inclusion involves the extension of general education curricula and goals to provide students special services. Finally, inclusion involves shared responsibility, problem solving, and mutual

support among all the staff members who provide services to students.

Inclusion is actually a much stronger concept which refers to “the right to belong to the mainstream” (Centre of the Studies on Inclusive Education, 2007); leaving behind the idea that only few learners have “special needs”. The social model of inclusion rather suggests that all students as individual learners present their own peculiar characteristics and have their own specific educational needs. Such a perspective implies to bring all students at the very heart of the educational process whilst the school is required to adjust and change in order to enable each of them to participate in the life of the school to the best of their abilities.

RATIONALE OF THE STUDY

India is planning to make all the schools in the country disabled friendly by 2020 and all educational institutions including hostels, libraries, laboratories and buildings to have barrier free access for the disabled. The Ministry of Human Resource Development is also planning to make available study materials, Talking Text Books, Reading Machines and computers with speech software progressively in addition to an adequate number of Braille books. To make this herculean task a reality, our schools must be committed for the upliftment of students with special needs (CWSN). Sarva Shiksha Abhiyan, a flagship programme for Universalization of Elementary Education in India made an endeavour to provide eight years of quality education to all children in the 6-14 age groups. The objectives of SSA can

only be realized, if Children with Special Needs (CWSN) are also included under the ambit of elementary education. Realizing the importance of integrating children with special needs in regular schools, SSA framework has made adequate provisions for educating CWSN. Though SSA has been providing adequate facilities to make schools inclusive in the real sense, our teachers are not accountable in this regard. Though we are having enough funds, it has been seen that schools even in the metropolitan cities are lacking infrastructural facilities for students with disabilities. Teachers are still having negative attitude towards the inclusion of students with disabilities, they are still not having proper awareness regarding inclusive education. For the improvement of schools in this regard, frequent assessment of effectiveness of inclusive education in schools is prerequisite for further development, so the lacunas can be pointed out. Taking this fact into consideration the investigator made an attempt to assay the effectiveness of inclusive education programme at elementary school level in north-west district of Delhi

STATEMENT OF THE PROBLEM

EFFECTIVENESS OF INCLUSIVE EDUCATION PROGRAMME AT ELEMENTARY SCHOOL LEVEL

OPERATIONAL DEFINITIONS OF KEY TERMS

❖ EFFECTIVENESS

In general effectiveness is the capability of producing a desirable result. When something is deemed effective, it means it has an intended or expected

outcome, or produces deep and vivid impression. In the light of present study effectiveness is the extent to which inclusive education programme (run under SSA) fulfilled its intended purpose in the views of general teachers at elementary level.

❖ **INCLUSIVE EDUCATION PROGRAMME**

Inclusive education describes the process by which a school attempts to respond to all pupils as individuals by reconsidering and restructuring its curriculum organization and provision and allocating resources to enhance equality of opportunity (Sebba & Sachev, 1997). Therefore, In India, SSA has adopted a more expansive and a broad-based understanding of the concept of inclusion, wherein a multi-option model of educating Children with Special Need is being implemented.

❖ **ELEMENTARY SCHOOL LEVEL**

Elementary education implies eight years of compulsory schooling that begins from the age of six. The eight years of elementary education is envisaged in two stages: a junior stage covering a period of five years (1st-5th) and a senior stage covering a period of 3 years (6th-8th).

OBJECTIVES OF THE STUDY

The study was planned with the following objectives:

1. To examine general teachers' perception towards children with special needs.

2. To study how much general teachers are capable to tackle with children with special needs.
3. To examine the views of general teachers regarding flexibility in curriculum.
4. To examine how effective existing support services are and how they can be strengthened.
5. To find out the barriers for general teachers on the path of Inclusive Education and how they can be removed.
6. To find out whether minimum equipment and teaching learning material are available in school.

METHODOLOGY

For the present investigation, investigator used descriptive survey method to investigate effectiveness of inclusive education programme at elementary school level.

POPULATION AND SAMPLE

All the inclusive schools of North-West district of Delhi constituted the population of the present investigation. In order to achieve the objectives of the study, 25 inclusive schools from the North-West district of Delhi were selected; this constituted the sample of the present investigation. The study targeted 50 regular general teachers.

TOOLS USED

An interview schedule for general teachers was used for the collection of data. The interview schedule developed

by Rehabilitation Council of India was adapted by the investigator in the light of Inclusive education and present scenario. Interview schedule for the general teachers of the inclusive schools comprised of 18 items, which the subject had to respond to.

MAIN FINDINGS

Views of General Teachers of Inclusive Schools

❖ Views of teachers regarding Capability to ackle children with special needs

Out of the total sample, only 15 percent teachers responded that their school is able to handle the needs of children with special needs. Merely 10 percent teachers had undergone 45 days' foundation course for handling children with special needs in inclusive schools. Substantially, 72 percent teachers perceived that parents are responsible for the care of children with special needs.

❖ Views of teachers regarding awareness about Inclusive Education

Results depicted that 22.5 percent teachers viewed the inclusion of children with special needs as a burden for them. Only 12.5 percent teachers showed their positive views about the inclusion of children with special needs in their class. A total of 25 percent teachers found adjustment problems with children with special needs, 50 percent teachers didn't support inclusion of Children with severe disabilities, 37.5 percent teachers demanded permanent resource teacher for their support. Seventy five percent teachers suggested provision of required resources and attractive teaching learning materials for teaching children

with special needs. A total of 50 percent teachers suggested reducing the pupil teacher ratio so that they could give more time to children with special needs.

❖ Views of teachers regarding Flexibility in curriculum

Results revealed that 50 percent teachers did not make any kind of adaptations while teaching in classroom. A total of 25 percent teachers reported that they gave extra time to children with special needs when they, required and also took care of sitting arrangements of children with special needs in class, and only 12.5 percent teachers' used teaching aids.

All the teachers in the sample revealed that they were not allowed to make any adaptations in the syllabi at any cost.

Results indicated that only 37.5 percent teachers gave extra time to children with special needs in examination but without any official order. Only 25 percent teacher responded that they took oral tests in very critical situation but they were not allowed to do these types of changes as record copies were required for official proof.

Only 7.5 percent teachers responded that they provide co-curricular task to children with special needs as per their need. Only 12.5 percent teachers arranged indoor games for children with special needs.

❖ Views of teachers regarding support to Inclusive Education

Results revealed that 50 percent teachers were in favour of partial support to Inclusive Education, 20 percent teachers

did not support the philosophy of Inclusive Education. Only 30 percent teachers fully supported the philosophy of Inclusive Education.

❖ **Views of teachers regarding barriers on the path of Inclusive Education**

Substantially, 75 percent teachers responded that lack of resources and equipments is the main barrier on the path of Inclusive Education, 50 percent teachers viewed unawareness of society and teachers as barrier on the path of Inclusive Education. Merely 25 percent teachers responded that unclear government policy itself is a barrier to the path of Inclusive education, 65 percent teachers viewed that the lack of trained staff is a barrier to the path of Inclusive education. Only 7.5 percent teachers reported lack of financial support as a barrier and 12.5 percent teachers' responded lack of community support as a barrier.

❖ **Challenges faced by teachers in classroom**

Results indicated that 20 percent teachers faced challenge of poor academics of children with special needs, 25 percent teachers faced disturbance due to the presence of children with special needs in their class, 37.5 percent teachers complained for high pupil-teacher ratio in classroom due to which they can't handle children with special needs with utmost care and 30 percent teachers replied that teaching children with special needs is time consuming and overburden for regular teachers.

❖ **Suggestions given by teachers with regards to inclusive education**

Results depicted that 90 percent teachers suggested recruitment of permanent special teachers in their schools, 35 percent teachers suggested special school environment for the education of children with special needs, 37.5 percent teachers suggested the provision of resources and equipment for the better implementation of the inclusive education programme, 62.5 percent teachers suggested training for the regular teachers so that they can handle children with disability more carefully and 12.5 percent teachers demanded a counselor in their school to counsel the children with special needs and their parents.

EDUCATIONAL IMPLICATIONS

The most outstanding characteristics of any research are that it must contribute something new to the development of the area concerned. Studies of the present type have obvious implications for the teachers, parents, students, higher educational authorities and policy planners. It has been found in the present research that even the heads of the inclusive schools don't have basic knowledge about inclusive education. It is not possible to make inclusive education a success without the awareness of inclusion among the principals especially. Principals should also monitor the school practices regularly so that the shortcomings can be overtaken quickly. They should maintain a record of retention rate and drop-out rate year wise. Principals should guide and motivate the teachers for the better implementation of inclusive education programme in the school. They should represent the problems and barriers related

to inclusion to the concerned or higher authority. Timely inspections by higher educational authorities are inevitable. Facilities of resource room and special teacher must be provided to each and every school as per the need. Furthermore, the existing monitoring system should be strengthened. This will also lead to use proper utilization of finances at right place. The government should provide necessary resources and equipments on the demand of the school authorities. Government should monitor the proper utilization of funds released. Workshops and orientation programmes should be organized zone-wise so that direct interaction can be maintained with the teachers. Teachers should not be engaged in non-academic work loads like election duties, census duties etc. Teachers must be allowed creating enough flexibility in syllabi, evaluation, co curricular activities while teaching.

Teachers should not discriminate students on the basis of students' backgrounds. General teachers should give extra time to children with special needs whenever they need. They should orient the children without disabilities to interact with children with special needs. General teachers should use available funds properly. They should also prepare individualized educational programme for children with severe disabilities. It is the responsibility of the children without disabilities to treat the children with special needs as their siblings or friends. They should cooperate with children with special needs in adjusting to school. Special teachers should interact with all regular teachers from time to time with reference to the children with special

needs; the regular teachers require more guidance for the possible development of children with special needs. Teachers must have a frequent interaction with parents of both children with and without disability to guide and orient them for seeking support in the education of children with special needs. Teachers should inform to the head of the school when they face any incurable problem in the education of children with special needs.

CONCLUSION

As the education system is at the beginning of an inclusive paradigm, there can be no doubt that a non-segregated, anti-discriminatory environment for a diverse population of children and young people in schools will produce schools which are more sensitive and more people-orientated. Inclusive Education under Sarva Shiksha Abhiyan and Rashtriya Madhyamik Shiksha Abhiyan is very important programme for education of Children with Special Needs. O'Brien, T. (Ed.). (2001) explained the concept of inclusiveness in education as meditated to remove exclusiveness from the minds of such children traditionally supposed to get education in special schools secluded from mainstream school system. It is contemplated that the special school system creates isolation in the minds of the CWSN. Further, the exclusive special school system stands on the way of their social integration. Keeping this perspective in active consideration, the concept of implementation of Inclusive Education programme is perceived in SSA and RMSA to ensure achieving the goal of universalisation of elementary and secondary education. Although it is very

tough and difficult to educate the differently able children in the inclusive setup, both SSA and RMSA scheme lay prime importance to bring the CWSN under the coverage of education in the formal school system.

In the present investigation the researcher found an unsuccessful aspect of inclusive programme under SSA. The first one constituent; 'awareness', 20 percent regular teachers of the investigated inclusive schools of North-West district of Delhi still don't support the philosophy of Inclusive education and 50 percent teachers supported it partially merely 30% teachers supported the philosophy fully. To its more

peculiarity, not a single teacher as well as head of the institution was found having the clarity about the meaning, functions, objectives and bases of inclusive education. As a student of education the researcher can contend that inclusion doesn't mean dumping. But here question arises that how far admitting the children with special needs in schools which are not barrier free socially, architecturally and academically; and the schools where the 36 percent teachers are still having negative attitude and 71.05 percent children without disability make fun or discriminate children with special school; is justified?

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A COMPARATIVE STUDY ON MATHEMATICAL INTEREST OF GOVERNMENT AND NON GOVERNMENT HIGH SCHOOL STUDENTS

4

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INTRODUCTION

To arouse and maintain the student's interest in mathematics, is a major problem for the teacher. He knows that loss of interest is one of the principal causes of student's failure. Students work most effectively at task in which they are genuinely interested. Student's as a rule, readily become interested in things which are new or exciting, for which they can perceive practical values and which involve puzzle elements or elements of mystery. Their interest is easily caught by anything new, but such interest is fleeting. It is easier to interest students in their work than it is to keep them interested after the novelty of the works has worn off. The elements of novelty, use fullness, and sheer intellectual curiosity are the primary stimuli for the awakening of interest. The work should present a continual challenge, but it should be a challenge in the real sense and not merely drudgery at meaningless, difficult tasks. Interest in the subject can be effectively aroused and maintained by numerous special devices and activities.

NEED AND SIGNIFICANCE OF THE STUDY

Mathematics assumes a prominent place in modern education. It uses numbers, signs, shapes and patterns instead of words. It develops scientific attitude among the students. However, the literature reviewed in this study showed that various Researchers have come out with varied results, at times supporting each other but sometimes contradicting each other. Thus, it is necessary to assess the interest of students in mathematics. Although, the variable selected in the present study has been studied but not much of the work has been done in this part of country. The present study attempts to fill these research gaps. Hence, research is needed to understand the interest of students in mathematics.

REVIEW OF RELATED STUDIES

Vandana Sharma(2014) The study was attempted to study the mathematical interest of VIII standard students with respect to their gender and area. A sample of 120 students (consisted of 60 boys and

60 girls studying in VIII class and belonging to rural and urban areas) was drawn from Government Schools of Una district (H. P.) by employing random sampling. Descriptive survey method was used to find out the mathematical interest of VIII class students. For the collection of data Mathematical Interest Inventory by Dubey was used to measure the mathematical interest of VIII standard students. For the analysis of data percentages were calculated to find out the percentage of student having varied mathematical interest and t-test was used to find out the significant difference between two groups. The results of the present study demonstrated that 61% students showed high interest in mathematics, 22% students showed above average interest in mathematics, 9% students showed average interest in mathematics, 7% students showed below average interest in mathematics, and 1% students showed low interest in mathematics. In total, it was found that total sample showed high interest in mathematics. No significant difference was observed between boys and girls on the variable of mathematical interest. Also, it was observed that rural and urban area students did not show any significant difference on mathematical interest. They showed same level of mathematical interest. Mini J. Chaman, Kim Beswick, Rosemary Callingham (2014) conducted a study on Factor Influencing Mathematics Achievement among secondary school students. Secondary schooling is an important stage of education during which students acquire skills needed for future

education and employment. Gaining mathematical knowledge and competence is an integral part of this process. Studies have stressed the importance of achieving necessary mathematical skills, and of success in secondary school mathematics.

OBJECTIVES OF THE STUDY

- To find out the level of Mathematical Interest of Government and Non Government High School Students in Thiruvallur District.
- To find out whether there is a significant difference between Government and Non Government High School Students in their Mathematical Interest with respect to Male and Female.
- To find out whether there is a significant difference between Government and Non Government High School Students in their Mathematical Interest with respect to Urban and Rural Students.
- To find out whether there is a significant difference between Government and Non Government High School Students in their Mathematical Interest with respect to Uneducated, School Educated and College Educated Parents.

HYPOTHESES OF THE STUDY

- The level of the Mathematical Interest of Government High School Students is average.
- The level of the Mathematical Interest of Non Government High School Students is average.

- There is no significant difference between Government and Non Government High School Students in their Mathematical Interest with respect to Male.
- There is no significant difference between Government and Non Government High School Students in their Mathematical Interest with respect to Female.
- There is no significant difference between Government and Non Government High School Students in their Mathematical Interest with respect to Urban Students.
- There is no significant difference between Government and Non Government High School Students in their Mathematical Interest with respect to Rural Students.
- There is no significant difference between Government and Non Government High School Students in their Mathematical Interest with respect to Uneducated Parents.
- There is no significant difference between Government and Non Government High School Students in their Mathematical Interest with respect to School Educated Parents.
- There is no significant difference between Government and Non Government High School Students in their Mathematical Interest with respect to College Educated Parents.

METHODOLOGY OF THE STUDY

The investigator preferred normative survey method. It describes and interprets what exists at present.

TOOL USED

It is constructed by the investigator and the guide after referring to various resources including web based resources.

DISCRIPTION OF THE TOOL

The Mathematical Interest questionnaire consists of 30 statements depicting various situations on one's life three responses namely 'Always', 'Sometimes', and 'Never' are given against each statement. Out of 30 items in the questioner 18 are positive and 12 are negative statement.

RELIABILITY & VALIDITY

In order to establish reliability split half- method was used. Correlation coefficient was found to be 0.75 showing the tool to be Highly reliable. The validity of the tools is tested by finding out the square root of the reliability score. The validity is computed to be 0.86 indicating that tool has Highly validity.

SAMPLE

Selection of a sample is an important aspect of Descriptive Research. Stratified Random Sampling technique has been adopted to choose. The sample consisted of 300 students from 7 different types of schools.

ANALYSIS AND INTERPRETATION OF THE DATA

Table 1

Frequency and Percentage of Government and Non Government High school students for Mathematical Interest

Variable	Group Compared	Range	Category	Frequency	Percentage
Mathematical Interest	Government	30-64	High	42	28%
		65-76	Average	71	47.33%
		77-90	Low	37	24.67%
	Non Government	30-58	High	40	26.67%
		59-74	Average	72	48%
		75-90	Low	38	25.33%

From the above table, as the number of students in the Average category is found to be more than High and low, it is concluded that the Mathematical Interest among Government High School Students is average as hypothesized.

As the number of students in the Average category is found to be more than High and low, it is concluded that the Mathematical Interest among Non Government High School Students is average as hypothesized.

Table 2

Mathematical Interest of Government and Non Government High school Students with respect to Gender

Variable	Gender	School	N	Mean	S.D	't' value	L.S
Mathematical Interest	Male	Government	75	66.89	9.04	1.67	NS
		Non Government	75	63.89	12.6		
	Female	Government	75	70.96	7.78	1.86	NS
		Non Government	75	67.61	13.06		

From the above table, it is observed that the obtained 't'-value 1.67 is less than the table value (1.96) at 0.05 level indicating there is no significant difference between the means. It is concluded that there is no significant difference between Male students of Government and Non Government High School.

From the above table it is observed that obtained t-value 1.86 is less than the table value (1.96) at 0.05 level indicating there is no significant difference between the means. It is concluded that there is no significant difference between Female Students of Government and Non Government High School.

Table 3***Mathematical Interest of Government and Non Government High school Students with respect to Locality***

Variable	Locality	School	N	Mean	S.D	't' value	L .S
Mathematical Interest	Rural	Government	125	69.06	8.26	2.87	0.01
		Non Government	83	64.30	13.51		
	Urban	Government	25	68.44	10.55	0.39	NS
		Non Government	67	67.43	12.09		

From the above table it is observed that obtained t-value 2.87 is greater than the table value (2.58) at 0.01 level indicating there is significant difference between the means. It is concluded that there is significant difference between Rural Students of Government and Non Government High School.

From the above table it is observed that obtained t-value 0.39 is less than the table value (1.96) at 0.05 level indicating there is no significant difference between the means. It is concluded that there is no significant difference between Urban Students of Government and Non Government High School.

Table 4***Mathematical Interest of Government and Non Government High school Students with respect to Parent's Education***

Variable	Parent's Education	School	N	Mean	S.D	't' value	L .S
Mathematical Interest	Uneducated	Government	48	66.33	9.45	0.59	NS
		Non Government	36	64.63	15.02		
	School Educated	Government	80	70.35	7.61	3.25	0.01
		Non Government	85	65.2	12.33		
	College Educated	Government	22	69.63	9.45	0.55	NS
		Non Government	29	68.48	11.78		

From the above table, it is concluded that there is no significant difference between Government and Non Government High School Students in their Mathematical Interest with respect to Uneducated Parents.

For School Educated Parents there is significant difference between Government and Non Government High School Students in their Mathematical Interest.

For College Educated Parents there is no significant difference between Government and Non Government High School Students in their Mathematical Interest.

EDUCATIONAL IMPLICATIONS

- Government school teachers may be given more incentives to strengthen their interest to teach Mathematics.
- Teachers can stimulate the interest of students in mathematics by teaching with models, charts, online tutorials and Multimedia packages.

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- Students may be given more opportunities to take part in general mathematics examinations.
- Rural and urban students may be provided equal facilities for studies.
- Provision of a host of co-curricular activities in Mathematics like mathematics club activities, quiz, conducting exhibitions etc. would promote interest in the study of mathematics.
- Every institution right from the primary school should be provided with facilities, offering Guidance and counseling. A trained Psychologist and Guidance Counsellor should take their rightful place in every educational step, with the assistance of Teachers. The Psychologist and the counselor of the School can help the Students to develop interest in the subject and give proper Motivation.

RUDIMENTARY LEARNING DIFFICULTIES OF PRIMARY SCHOOL CHILDREN

5

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INTRODUCTION

The present study deals with the identification of rudimentary learning difficulties of primary school children of Cuddalore district with respect to reading, arithmetic and comprehension. Low level of rudimentary learning achievement is rarely caused by a single isolated factor and many educationists believe that learning difficulties are caused primarily by educational, rather than medical factors, and that their treatment should have an educational focus. In India, exclusive efforts are not made to find out the incidence of learning difficulties among children. Hence, the present study has been undertaken for the identification of rudimentary learning difficulties of primary school children of Cuddalore district, with respect to certain selected demographic variables.

OBJECTIVES OF THE PRESENT STUDY

The following objectives have been formulated for conducting the present study:

1. To find out the percentage of primary school students with rudimentary learning difficulties
2. To find out the level of rudimentary learning difficulties of primary school

children in reading, arithmetic and comprehension with respect to

- a) Sex
 - b) Birth Order
 - c) Location of the School
 - d) Type of Management
 - e) Type of Family
 - f) Parents Education
 - g) Medium of Instruction
3. To find out whether there is any significant difference between the rudimentary learning difficulties of primary school children with respect to
 - a) Sex
 - b) Birth Order
 - c) Location of the School
 - d) Type of Management
 - e) Type of Family
 - f) Parents Education
 - g) Medium of Instruction

METHOD OF STUDY

Normative Survey method has been used in the present study. The data has been collected from the primary school children of Cuddalore district.

Location of the Study

The study has been conducted in the selected schools located in Cuddalore district-both from rural and urban areas.

Sample of the Study

Based on random sampling technique, 1000 primary school children studying in various primary schools of Cuddalore district have been selected as sample for conducting this study.

Tool Used in The Present Study

The following tool has been used in the present study

Rudimentary Learning Difficulties Questionnaire-constructed and validated by the investigator

Data Collection

The data has been collected from 1000 primary school children, studying in various schools of Cuddalore district and all the selected tools have been administered in both phases- identification and remediation.

Statistical Techniques used in The Present Study

The obtained data has been subjected to the following statistical techniques-

- (a) Descriptive Analysis-Mean, S.D
- (b) Differential Analysis-"t" value

Administration of Research Tools

After selecting the tools and sample for the study, steps have been taken for data collection. The investigator personally visited each school, sought the permission of the Head Masters and teachers and

administered all the tools. The instructions were clearly given to all the respondents and in different schedules, the data was collected for both phases-identification and also remediation

Analysis and Interpretation of Data

The obtained data has been subjected to appropriate statistical analysis through SPSS software.

Level of Significance

The investigator has tested all the hypotheses on the basis of results obtained, through analysis of data, using the above statistical procedures. In the present study, all the hypotheses have been tested for acceptance or rejection at 0.01 level of significance.

Rudimentary Learning Difficulties: Percentage

The following figure gives the percentage of students with rudimentary learning difficulties. The figure reveals that 74% of the students have rudimentary learning difficulties. Out of 1000 students selected for the study, 740 students had high level of rudimentary learning difficulties. That is, only 260 students do not have difficulties in rudimentary learning.

- The rudimentary learning difficulties of male students are higher than the female students.
- The rudimentary learning difficulties of students who are first born is higher than the rudimentary learning difficulties of students who are second born

- The rudimentary learning difficulties of students with rural background are higher than the rudimentary learning difficulties of students with urban background.
- The rudimentary learning difficulties of students studying in government schools are higher than the rudimentary learning difficulties of students studying in private schools.
- The rudimentary learning difficulties of students from nuclear family are higher than the rudimentary learning difficulties of students from joint family.
- The rudimentary learning difficulties of students whose parents had school education is higher than the rudimentary learning difficulties of students whose parents had college education
- The rudimentary learning difficulties of students studying in English medium are higher than the rudimentary learning difficulties of students studying in Tamil medium.

Table 1

Rudimentary Learning Difficulties of Students in Percentage

Variables	Sub-Samples	N	%
Entire Sample		1000	74 %
Sex	Male	505	57 %
	Female	495	43 %
Birth Order	First	469	54%
	Second	531	46%
Location of the School	Rural	508	52%
	Urban	492	48%
Type of Management	Government	510	54%
	Private	490	46%
Type of Family	Joint	350	49%
	Nuclear	650	51%
Parents Education	School Education	660	53%
	College Education	340	47%
Medium of Instruction	Tamil	525	48%
	English	475	52%

The above table 1 shows the rudimentary learning difficulties of various sub-samples in percentage.

Descriptive Analysis of Rudimentary Learning Difficulties

The level of Rudimentary Learning Difficulties of primary school children

has been analyzed by administering the questionnaire to the children. The data was collected and was subjected to statistical analysis. The maximum score that a student can achieve in the tool is 50. A high score indicates high level of learning difficulties and a low score indicates low level of learning difficulties.

Mean Values of Rudimentary Learning Difficulties

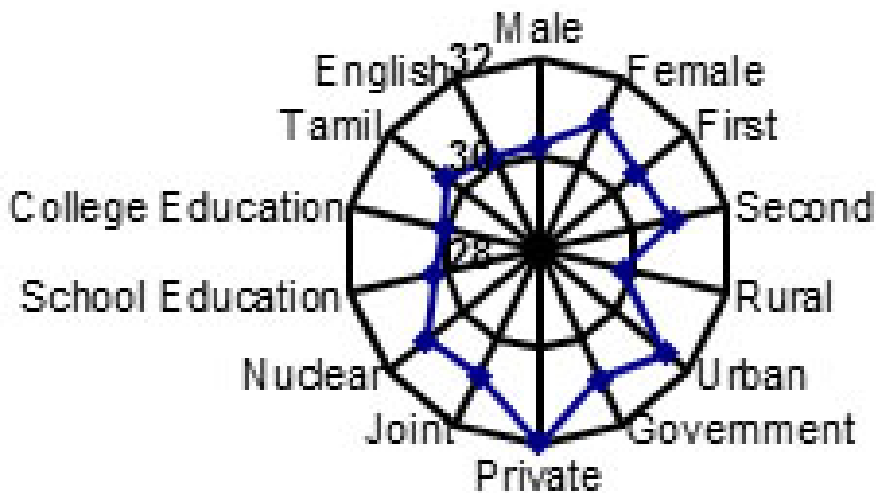


Figure 1

The mean and standard deviation of the scores are found to be 39.47 and 8.42 respectively. As the mean score is higher than the mid score of 25, it can be inferred that the rudimentary learning difficulties of primary school students in studying in various schools in Cuddalore District is very high.

The given figure1 and the table 2 below, reveal the rudimentary learning difficulties levels of primary school children in reading, arithmetic and comprehension with respect

to the selected demographic variables. The children studying in government schools have highest mean learning difficulties scores while the children studying in schools located in urban area have the lowest mean learning difficulties score.

Thus, the mean and standard deviation of learning difficulties of different sub-samples reveal that the learning difficulties of the primary school children of Cuddalore district are high.

Table 2***Mean Values of Rudimentary Learning Difficulties of Students***

Variables	Sub-Samples	N	Mean	S.D
Entire Sample		1000	39.47	8.42
Sex	Male	505	38.26	5.76
	Female	495	37.27	5.02
Birth Order	First	469	38.02	6.45
	Second	531	36.50	6.73
Location of the School	Rural	508	37.64	4.23
	Urban	492	36.42	4.57
Type of Management	Government	510	38.87	5.31
	Private	490	37.64	5.43
Type of Family	Joint	350	38.15	4.76
	Nuclear	650	37.46	4.81
Parents Education	School Education	660	37.80	5.76
	College Education	340	36.48	5.05
Medium of Instruction	Tamil	525	37.05	6.06
	English	475	38.04	6.72

Differential Analysis of Rudimentary Learning Difficulties

In order to find out the significant difference between various sub-samples with respect to rudimentary learning difficulties of primary school students, “t” values have been calculated at 0.01 level of significance and the following results have been arrived at .

In the table 3, the significance of difference between various sub-samples has been given and the “t” value has been tested at 0.01 level of significance. As the “t” value is higher than the table value at 0.01 level of significance, it can be inferred that the learning difficulties of the primary school children differs significantly on the basis of sex, location of the school, type of management, parents education and also medium of instruction.

t- Values of Rudimentary Learning Difficulties

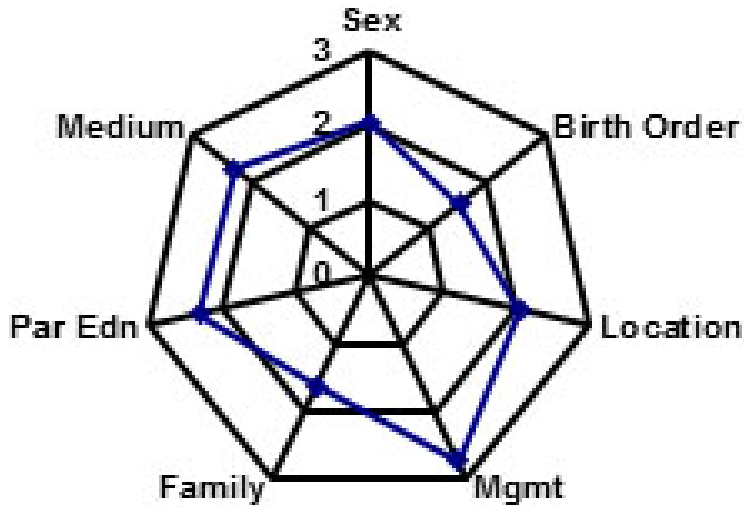


Figure 2

Table 3

Significance of Difference in Rudimentary Learning Difficulties of Various Sub-Samples

Variables	Sub-Samples	N	Mean	S.D	"t"	S/N.S
Sex	Male	505	38.26	5.76	2.05	S
	Female	495	37.27	5.02		
Birth Order	First	469	38.02	6.45	1.54	NS
	Second	531	36.50	6.73		
Location of School	Rural	508	37.64	4.23	2.06	S
	Urban	492	36.42	4.57		
Type of Management	Government	510	38.87	5.31	2.74	S
	Private	490	37.64	5.43		
Type of Family	Joint	350	38.15	4.76	1.62	NS
	Nuclear	650	37.46	4.81		
Parents Education	School Education	660	37.80	5.76	2.32	S
	College Education	340	36.48	5.05		
Medium of Instruction	Tamil	525	37.05	6.06	2.29	S
	English	475	38.04	6.72		

CONCLUSION

Rudimentary learning difficulties of the primary school students in reading, arithmetic and comprehension have been identified. Hence, it must be inferred that

the rudimentary learning difficulties of the primary school students in reading, arithmetic and comprehension have to be immediately paid attention so as to achieve enhanced achievement levels.

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DEVELOPMENT AND STANDARDIZATION OF AWARENESS TEST ON HEARING DISABILITY

6

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INTRODUCTION

A child with disability is one who deviates intellectually, physically, socially or emotionally so markedly from what is considered to be normal growth and development that he cannot receive maximum benefit from a regular school programme and requires a special class or supplementary instructions or services. The various categories of disability are - Hearing disability, Speech and language disability, Visual disability, Mental retardation, Learning disabilities, Orthopaedic disability, Giftedness etc.

Education of children with disabilities is a challenging field. Education generally enables a child with disability to overcome largely his disability and makes him into a useful child. The different types of available educational programmes for the children with disabilities are Segregated (Special) education, Integrated education and Inclusive education.

Segregated education through special schools is very costly. So many educationists nullify the idea of Segregated education on the grounds that it never equalizes the educational opportunities; rather it creates a feeling of differentiation among children.

Integrated education is an educational programme in which the children with disabilities attend classes with normal children on either part time or fulltime basis. Integrated education is less expensive when compared with special education.

Inclusive education has evolved as a movement to challenge exclusionary policies and practices of general schools. The principle of inclusive education is all the children should learn together, wherever possible regardless of any difficulties or differences they may have. Inclusion is the full time placement of all children including the children with mild, moderate and severe disabilities in regular classrooms (Staub and Peck – 1995).

The effectiveness of inclusion depends on the readiness of general educational system. Before implementing the inclusive education, our educational system is to be adopted to meet the needs of all the children with disabilities.

HEARING DISABILITY

The Persons With Disabilities (PWD) Act-1995 defines hearing disability as loss of 60 decibels or more in better ear in the conversational range of frequencies.

Awareness

The Dictionary of Psychology defines the word awareness as being conscious of external or internal events or experiences. In the Hutchinson Encyclopedic Dictionary (1994) awareness is explained as 'having knowledge or realization.' There was complete dearth of the appropriate and standardized tools for measuring Teachers' Awareness on Hearing Disability, hence it was thought to construct the same.

OBJECTIVES

- ❖ To construct an Awareness Test on Hearing Disability.
- ❖ To standardize an Awareness Test on Hearing Disability.

AWARENESS TEST ON HEARING DISABILITY

An Awareness Test was constructed and standardized to measure the level of Teachers' Awareness on Hearing Disability. The steps followed for its construction and standardization are as follows:

- Planning
- Preparation of Preliminary Form
- Pre-try-out
- Editing
- Try out (Pilot Study)
- Item Analysis
- Preparation of Final Form

PLANNING

During Planning, it was decided to prepare the statements with reference to - Nature, Identification, Causes, Characteristics, Educational provisions and Facilities in the Awareness Test on Hearing Disability.

Preparation of Preliminary Form

The researcher prepared preliminary form of Awareness test on Hearing disability with 42 - simple and clear multiple choice statements. For each statement three alternative answers - a, b and c were given. Then the researcher classified the statements of Awareness test on Hearing Disability under different sections namely - Nature, Identification, Causes, Characteristics, Educational provisions and Facilities.

Pre-try-out

The preliminary form of Awareness test on Hearing Disability was given to 15 special school teachers and 10 teacher educators for their observation and criticism regarding the clarity of statements, appropriateness of the language of statements and the pattern of responses against each statement. Based on their suggestions the constructed tool was put for further editing.

Editing

Soliciting the responses of the teachers and teacher educators approached at the pre-try-out stage, the editing of the constructed tool was completed. On the basis of criticisms and suggestions of experts involved, 7 statements were detained and 35 statements were retained in the Awareness test on Hearing Disability.

Try out (Pilot Study)

For the standardization of constructed tool, the researcher conducted pilot study. The constructed tool was administered on 370 randomly selected government school teachers of Chittoor District of Andhra Pradesh State. The teachers were instructed to mark their responses for all the statements of Awareness test. Further they were given assurance that their responses would be used only for research purpose. They were also convinced that their responses would be kept confidential. There was no time limit, but the teachers took 40 to 50 minutes to complete the test.

The responses of the teachers for the

statements in the Awareness test were corrected with the help of scoring key and for each correct response one mark was given.

Item Analysis

Item analysis was carried out to eliminate inconsistent statements (Items) in tool by comparing the proportion of cases, who are placed in top 27% and bottom 27% criterion groups and by calculating Difficulty and Validity indices for each and every item. The items having difficulty indices 0.4 or more (corrected to first decimal place) and validity indices 0.2 or more (corrected to first decimal place) were retained, where as the items having difficulty indices less than 0.4 and validity indices less than 0.2 were detained.

Table1

Difficulty and Validity Indices for the Items of Awareness Test on Hearing Disability

Item number in Awareness Test	Difficulty Index	Validity Index	Remarks
1	0.83	0.26	Retained
2	0.84	0.21	Retained
3	0.55	0.37	Retained
4	0.48	0.33	Retained
5	0.38	0.31	Retained
6	0.63	0.04	Detained
7	0.47	0.37	Retained
8	0.56	0.41	Retained
9	0.80	0.11	Detained
10	0.42	0.30	Retained

Item number in Awareness Test	Difficulty Index	Validity Index	Remarks
11	0.63	0.30	Retained
12	0.36	0.27	Retained
13	0.51	0.40	Retained
14	0.59	0.33	Retained
15	0.54	0.37	Retained
16	0.44	0.57	Retained
17	0.53	0.52	Retained
18	0.58	0.42	Retained
19	0.53	0.44	Retained
20	0.61	0.17	Retained
21	0.60	0.54	Retained
22	0.55	0.16	Retained
23	0.64	0.34	Retained
24	0.47	0.29	Retained
25	0.60	0.42	Retained
26	0.45	0.37	Retained
27	0.77	0.27	Retained
28	0.52	0.33	Retained
29	0.61	0.33	Retained
30	0.49	0.37	Retained
31	0.59	0.42	Retained
32	0.35	0.23	Retained
33	0.76	0.20	Retained
34	0.46	0.41	Retained
35	0.59	0.45	Retained

In the Awareness test on Hearing disability 2 items were detained and 33 items were retained.

Table2**Section - wise Distribution of Items of Awareness Test on Hearing Disability**

Sl. No.	Name of the Section	Item Number in Awareness test	Total Number of Items
1	Nature	1, 4, 6, 14, 20, 21, 25	7
2	Identification	7, 17, 23, 30	4
3	Causes	2, 9, 11, 31	4
4	Characteristics	8, 13, 19, 33	4
5	Educational provisions	10, 16, 26, 27	4
6	Facilities	3, 5, 12, 15, 18, 22, 24, 28, 29, 32	10

Preparation of Final Form

After item analysis the Final Form of Awareness Test on Hearing Disability was prepared with 33 retained items.

RELIABILITY AND VALIDITY TOOL

Test-retest reliability coefficient of Awareness test on Hearing Disability was determined on the basis of scores of 50 randomly selected teachers. These 50 teachers were approached after a gap of one month and their scores for the same Awareness test was recorded. Their scores at two instances viz. testing and retesting were put in a tabular form for establishing Test-retest reliability coefficient by using Karl Pearson's Correlation Co-efficient formula. The test-retest reliability coefficient of Awareness test on Hearing Disability was 0.68. Hence the developed tool was highly reliable.

On the basis of opinions of experts, the items of the Awareness test were structured. The Difficulty and Validity indices of all the items of the tool were high. The Coefficient of Intrinsic validity of the tool was 0.82. Hence the developed tool has Content validity, Item validity and Intrinsic validity.

CONCLUSION

In India, till now most of the school teachers are not sufficiently aware of disabilities. Therefore, during Pre and In-service training programmes they should be made aware of Nature, Identification, Causes, Characteristics, Educational provisions and Facilities of different types of disabilities so that they can impart education in a proper way to the Children With Disabilities in the Inclusive classrooms.

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