

Study Of the Awareness Programme on The Usage of First Screen App Among Pre-Service Teacher Educators

Dr. Sudha. A

*Assistant Professor in Special Education & Head
Division of Intellectual Disability (ID) & Allied Disabilities (AD)
Faculty of Disability Management and Special Education
Ramakrishna Mission Vivekananda Educational and Research Institute
(Deemed - to - be University),
Coimbatore, Tamil Nadu*

Abstract—The investigator attempted to find out the awareness about First Screen App among pre-service teacher educators. First Screen Application is a kind of screening app for Specific Learning Disabilities (SLD) It aims at early identification of children who may be at risk of developing SLD (Specific Learning Disability). It also allows for early intervention well before the formal age of diagnosis at 8 years. It consists of 9 domains. This app available in free of cost, available in both languages (English & Hindi), takes 20-25 minutes to complete the task, provides Visual feedback. As children with specific learning disability has difficulty in areas of learning and also unnoticeable among teachers, this study gives awareness on the usage of First Screen App for screening and early identification. Single Group Pre-and Post Test Experimental Research was used. A total of 30 pre-service teacher educators were taken for the study. The study consisted of two parts: Part A: Pre-test & Part B: Post-test. PRE-TEST: Questionnaire consisting of close ended questions with responses Yes or No was given to pre-service teacher educators to the knowledge about First Screen App. Based on the responses, awareness program was conducted and enhanced knowledge on the usage of First Screen App for early identification of children with specific learning disability. POST-TEST: The same questionnaire was assessed after the intervention to test their understanding about First Screen App. The pre-test and post-test results shows that the awareness level of pre-service educators has increased and they gained knowledge about on the usage of First Screen App.

Index Terms—Awareness Programme, First Screen App, Usage, Pre-service Teacher Educators

I. INTRODUCTION

Learning disabilities are disorders that affect the ability to, understand or use spoken or written language, do mathematical calculations, coordinate movements, direct attention. Learning disabilities occur in very young children, yet they are usually not noticed until the child reaches school age. Learning disabilities can be lifelong conditions. In some people, several overlapping learning disabilities may occur. Learning disabilities are diagnosed particularly when children start going to schools and are engaged in academic activities with other children in the school. Academic skill acquisition involves one or more of the basic psychological processes, such as attention, perception, memory, logical thinking and so on. When there is some deficit in these basic processes required in understanding or using language, spoken or written; it may be manifested in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. In spite of their average or above average intelligence, they have difficulty in learning scholastic skills. The disorder is called ‘specific learning disability’.

Specific Learning Disability is a neurodevelopmental disorder with significant problems in language processing, which are evident through difficulties in reading, writing, spelling, and mathematics. (RPwD Act 2016).

II. TEACHER EDUCATORS

Teacher educators are professionals who play a crucial role in the preparation and development of teachers. They work in various educational settings, including universities, colleges, teacher training institutions, and school districts. Teacher educators possess expertise in both theory and practice and have a deep understanding of teaching methodologies, curriculum design, assessment strategies, and educational research.

Here are some key aspects of teacher educators:

(A) Expertise and Qualifications: Teacher educators typically hold advanced degrees in education, such as master's or doctoral degrees. They have extensive knowledge and experience in their subject area, pedagogy, and educational psychology. Many teacher educators also have prior teaching experience in K-12 classrooms.

(B) Teacher Preparation: Teacher educators are responsible for preparing aspiring teachers to enter the profession. They design and deliver courses and workshops that cover topics such as educational philosophy, instructional strategies, classroom management, and assessment techniques. They also guide pre-service teachers in gaining practical experience through field placements and student teaching.

(C) Professional Development: Teacher educators support the ongoing professional development of practicing teachers. They provide workshops, seminars, and graduate-level courses that help teachers enhance their teaching skills, stay updated on the latest research and educational trends, and navigate challenges in the classroom. They may also offer mentoring or coaching to teachers, providing individualized support and feedback.

(D) Curriculum Design and Research: Teacher educators contribute to the development and revision of teacher education programs. They collaborate with other educators and researchers to design curriculum frameworks that align with educational standards and reflect best practices in teaching. They also conduct research in the field of education to advance knowledge and improve teaching methods.

(E) Collaboration and Advocacy: Teacher educators collaborate with schools, educational organizations, and policymakers to promote effective teaching practices and advocate for improvements in the education system. They participate in professional associations, attend conferences, and engage in discussions and initiatives that contribute to educational reform and the advancement of teacher education.

(F) Reflective Practice: Teacher educators encourage reflective practice among teachers. They help teachers critically analyse their teaching approaches, evaluate the impact of their instruction, and continuously improve their practice. Through reflective discussions and self-assessment, teacher educators facilitate professional growth and encourage teachers to adapt to diverse student needs and evolving educational contexts.

Overall, teacher educators play a vital role in shaping the quality of education by preparing and supporting teachers. They bridge the gap between theory and practice, equip teachers with the necessary knowledge and skills, and foster a culture of continuous professional growth among educators.

III. PRE SERVICE TEACHER EDUCATORS

Pre-service teacher educators refer to educators who are under preparation in the field of education for the teaching profession. Freshers who have acquired some amount of general education and who want to join the teaching profession needs to be provided with pre-service teacher education to equip them with the knowledge, skills and attitudes required to teach effectively and efficiently. A limited number of institutions also offer 4-year integrated teacher education programme after 10+2 stage. Some institutions offer B.Ed (Elementary) degree. Some institutions offer B.Ed. and M.Ed degree. There are institutions which offer B.Ed (Special Education), D.Ed (Special Education), D.P.Ed and M.P.Ed for physical education teachers. Before entering into a pre-service education program, most students will have obtained a previous academic degree, either a general or honours, in a subject of their choice (e.g. English, Math, Science, religion). The alternative to this is that students may work simultaneously on an under graduate bachelor's degree and a pre-service

education program. The latter route in corporate education courses throughout the program's 4 or 5 years, and culminates in a final year of specific pre-service training students who complete a bachelor's degree before returning to a university to complete the pre-service education program are in a consecutive pre-service program while students who complete their pre-service training at some time as their undergraduate degree in a concurrent program.

The general objectives of pre-service teacher education are:

- To promote capabilities for inculcating national values and goals as enshrined in the constitution of India.
- To enable teacher to act as agents of modernisation and social change;
- To sensitize teachers towards the promotion of social cohesion, international understanding and protection of human rights and rights of the child;
- To transform student teachers into competent and committed professionals willing to perform the identified tasks,
- Pre-service teacher education should only be through face-to-face institutional course for a minimum of one-year academic duration.

The above decision leads to the abolition of B.Ed (private) system various universities of B.Ed through correspondence is not suitable for preparing a teacher. However correspondence distance education modes can be used effectively for in-service education at all levels. Those who intend to start a new teacher training institution in any part of the country should obtain an objection certificate from the state Government and then submit the application to the NCTE for recognition

Teacher education is a continuous process and its pre-service and in-service components are complementary to each other according to the International Encyclopaedia of teaching and teacher education (1987). Teacher education can be considered in their phases pre-service education and in-service. These phases are considered a part of a continuous process. Teacher education is broad and comprehensive. Besides pre-service and in-service programmes for teachers, it is used to be involved in various community programmes activities. The teacher is

required to acquire adequate knowledge, skills, interests and attitudes towards the teaching profession.

The statement of problem related to this study is as follows:

- Lack of awareness of screening tool for learning disability among schools and educators.
- This research addresses the above problem.
- Use of First Screen App will allow Pre service teacher educators to understand about early identification and also for early intervention well before the formal age of diagnosis at 8 years.
- Thus, the title of problem is given as - "Study of the Awareness Programme on the usage of First Screen App among Pre-Service Teacher Educator".

IV. RATIONALE AND NEED OF THE STUDY

- First Screen App is very useful in understanding in both early identification and early intervention for children with specific learning disability.
- Awareness about first screen app among pre-service teacher educators is necessary as it will help in enhancement of early identification in all areas of learning disability.
- This will improve the awareness of early identification in learning disability using First Screen App among pre-service teacher educators

V. OPERATIONAL DEFINITIONS

The specific way in which a variable is measured in a particular study is called the operational definition. It is critical to operationally define a variable in order to lend credibility to the methodology and to ensure the reproducibility of the results of the study.

The Operational definition of the study is explained below:

(A) Awareness Programme:

For the present study, the term "Awareness Programme" refers to the programme which will deliver the knowledge about using the First screen application among Pre-service teacher educators.

(B) First Screen Application:

For the present study, First Screen Application refers to an emerging application software to identify the children with specific learning difficulty. It helps to prepare plan of action in the area of learning difficulty faced by the children.

(C) Children with Learning Disability:

For the present study, children with specific learning disability refers to the children who are at risk for identification and labelling. Also, children who approach diagnostic and screening centres at the early stages for conforming in their specific learning disability.

(D) Pre-Service Teacher Educators:

For the present study, Pre-service teacher educators are the student teachers who are pursuing various teachers' preparation programmes.

VI. OBJECTIVES OF THE STUDY

The objectives help the target audience to clearly understand the purpose of particular research and it, therefore, eases understanding. Objectives may be linked with a research questions or hypothesis.

The objectives of the study are highlighted as follows:

- To find out the existing knowledge on screening tool for specific learning disability First Screen App among Pre service teacher educators.
- To conduct an awareness programme about First Screen App among Pre-service teacher educators.
- To find out the effectiveness of awareness programme on First Screen App among Pre service teacher educators.

VII. SAMPLE SIZE

A total of 30 pre-service teacher educators pursuing training (15 from B.Ed. Special Education and 15 from M.Ed. Special Education) in the field of Special Education from Coimbatore District, Tamil Nadu was taken as the sample for the current study.

The reason for the researcher to choose Pre-service teacher educators are:

- They can be provided training about the use of first screen application for children with specific learning disability
- Since, they are ongoing the training process to become special educators, they will be curious and interested to know about the topic.

VIII. RESEARCH QUESTIONS

1. What is the procedure followed for conducting awareness programme among pre service teachers? (
2. What is the level of awareness on the screening tool for Specific Learning Disability of First Screen App among Pre-service teacher educators before the awareness programme?

Hypothesis

1. There will be no significant difference between the pre-test and post-test on the level of awareness of using First Screen App among pre-service teacher educators.
2. There will be no significant difference between the post-test mean scores between qualification on the level of awareness of using First Screen App among pre-service teacher educators.

Research Question 1

1. What is the procedure followed for conducting awareness programme among pre service teachers?

Following steps were undertaken to conduct the awareness programme:

Step 1: Selected Pre-service teacher educators based on the inclusion criteria and availability.

Step 2: Planned and prepared the procedural formalities in conducting awareness programme.

Step 3: The content of the awareness programme was prepared and finalized with the expert group in the field.

Step 4: Modified the content based on the suggestions and finalized the content for the awareness programme.

Step 5: Conducted the awareness programme at specified schedules.

Step 6: The effectiveness of the awareness programme was noticed, recorded and reported in detail.

Activity Phases

Table 4.1 Timeline for the activity

Activity Phases	Number of Samples
Two Pre-Tests	30
Awareness programme on First Screen App (B.Ed.)	15
Awareness programme on First Screen App (M.Ed.)	15
Two Post Tests	30

Result

An awareness programme about First Screen App was conducted at fixed time schedule for Pre-service teacher educators. Since the first screen app is an important software used for the identification of children at risk, the content and presentation of awareness programme received good attention from Pre-service teacher educators.

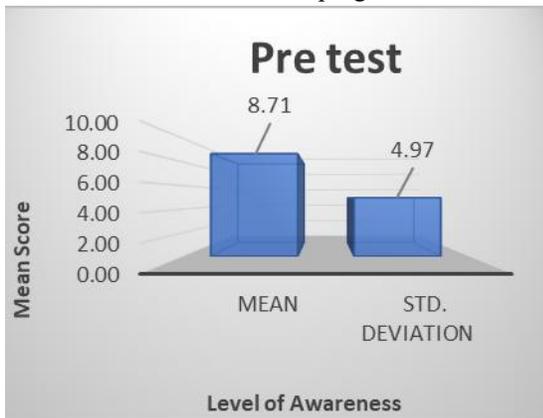
Research Question 2

2. What is the level of awareness on the screening tool for Specific Learning Disability among pre-service teacher educator before the awareness programme?

Table – 1 Level of awareness on the screening tool

Test	N	Mean	Std. Deviation
Pre test	30	8.7097	4.97456

Figure - 1 Pre-test mean score for the level of awareness on the screening tool for Specific Learning Disability among pre-service teacher educator prior to the awareness programme.



Interpretation: The above chart describes the overall pre-test mean scores for the overall responses. The pre-test mean score is 8.70 and standard deviation is 4.97. Thus, the above overall value represents the level of awareness on screening tool for Specific Learning Disability among pre-service teacher educator prior to the awareness programme.

Hypothesis (H0)

There will be no significant difference between the pre-test and post-test mean scores on the level of awareness of using First Screen App among pre-service teacher educators.

Figure – 2 Pre-test and Post test mean score of level of awareness of using First Screen App among pre-service teacher educators.

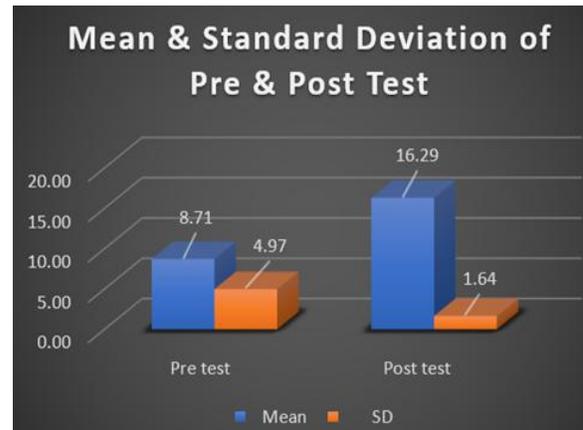


Table 4.3 Level of awareness of First Screen App among Pre service teacher educators

Test	N	Mean	SD	Df	t-value	Sig
Pre test	30	8.7097	4.97456	29	8.868	.00
Post test		16.2903	1.63694			

Interpretation: The above chart describes pretest and post test mean scores for overall responses. The Pre test mean score is 8.70 whereas the Post test mean score is 16.29 The calculated t value is 8.86 shows that there is significant difference between pre test and post test mean scores about the awareness about the usage of First Screen App among Pre-service teacher educators. Since the significance level is .000 which is less than the significance level of 0.05, it is inferred that there is significant difference between pre and post test

scores. Hence Null Hypothesis is Rejected and alternate hypothesis is accepted.

Inference: Most of the teacher educators have not used app for screening and identification. As a result of awareness programme, it was found that the level of awareness among pre-service teacher educators increased compared to pre test. This is because most of the assessment tools studied during the programme for Pre service teacher educators were print based and not in software based.

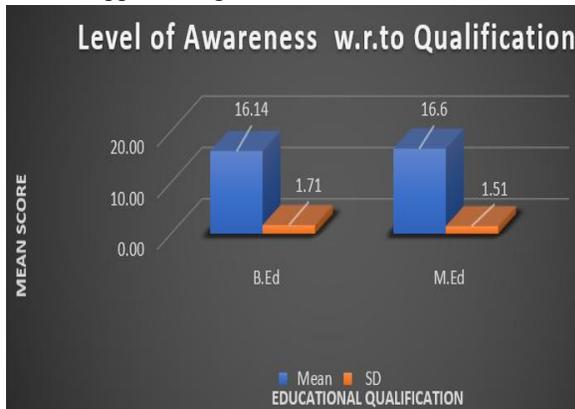
Hypothesis (H0)

There will be no significant difference between the post-test mean scores on the level of awareness of using First Screen App among pre-service teacher educators with respect to qualification

Table -3 - Post Test mean score on the level of awareness with respect to qualification

Test	Qualification	N	Mean	SD	Df	t-value	Sig
Post test	B.Ed	21	16.1429	1.71131	29	0.721	.477
	M.Ed	10	16.6000	1.50555	20	0.756	.459

Figure – 3 - Post test mean score of Pre-service teacher educators’ level of awareness about First Screen App with regards to Educational Qualification



Interpretation: The above chart describes posttest mean scores for the awareness about First Screen App among Pre-service teacher educators with regard to Qualification. The Post test mean score for educators who are pursuing B.Ed. and M.Ed. is 16.14 and 16.60. The calculated t value for B.Ed. and M.Ed. is 0.721

and 0.756 and the significant differences values of B.Ed. and M.Ed. is 0.477 and 0.459 which is greater than the significance level 0.05, it is inferred that there is no significant difference on the level of awareness of using First Screen App among pre-service teacher educators with regard to Qualification. Therefore, the above stated Null Hypothesis is accepted.

Inference: The post-test means scores show that pre-service teacher educators who are pursuing B.Ed. and M.Ed. have equal understanding about First Screen App and its usage. As a result, the null hypothesis is accepted as the mean scores between B.Ed. and M.Ed. has no significant difference.

Major Findings of the Study

The data has been analysed, interpreted and justified based on the overall responses obtained. The major findings are as follows:

- Pre service teacher educators had an idea about the word screening tool but were not aware about the software availability during the pre-test assessment.
- The results indicated that the awareness programme was effective in teaching the pre service teacher educators about the First Screen App for screening of children with specific learning disability.
- The posttest analysis had shown an increase in the mean scores which specified the awareness on First Screen App among pre service teacher educators.

Findings on the basis of Qualification

Based on qualification of pre-service teacher educators, i.e. who are pursuing B.Ed. and who are pursuing M.Ed, the findings are as follows:

- There was no significant difference between the post test mean scores on the basis of Qualification
- As a result, it indicated that pre service teacher educators who are pursuing B.Ed. and M.Ed. had equal knowledge about the usage of First Screen App
- The awareness programme made them to understand about the features of application and how to use it for early identification of children with specific learning disability.

Educational Implication of the Study

- Pre-service teacher educators can use the app to enhance their expertise in early identification and early intervention which builds a strong foundation for supporting students with SLD. This knowledge can enhance educators to know about SLD and their ability to support students with these disabilities effectively.
- It provides a platform for Pre-service teacher educators to exchange lesson plans, teaching materials, and best practices for addressing the unique needs of students with SLD. This collaborative environment can foster a sense of community and enable educators to learn from one another.
- This app can assist pre-service teacher educators by providing visual feedback after the screening, which helps teacher educators in developing individualized learning plans (ILPs) based on the specific strengths, challenges, and goals of student with specific learning disability.
- Parents also can use this app for screening their child to know about their specific learning difficulties.
- Through this application the teachers can able to address the learning difficulties domains of the children with SLD to their parents and can provide interventions by teachers and parents.
- These implications can contribute to improved instructional practices and outcomes for children with SLD.

Limitations of the study

The limitations of the study are given below:

- This research is carried out only for Pre service teacher educators
- This research is conducted in college where special education courses are offering
- This research focuses only on awareness on the usage of First Screen App for children with Specific Learning Disability (SLD).

IX. CONCLUSION

The study investigated the awareness on the usage of First Screen App among Pre service teacher educators through experimental method of research. The

awareness programme was very beneficial to the pre service teacher educators as it gave an idea about the usage of First Screen App and its importance in early identification and assessing for children with Specific Learning Disability. The post-test mean percentages shows that the awareness level among Pre service teacher educators is high compared with pre-test mean scores. Thus the study concludes that awareness programme was effective to enhance the knowledge about First Screen App among pre-service teacher educators.

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