

# TRAINING TEACHER'S IN EARLY IDENTIFICATION AND MANAGEMENT OF SPECIFIC LEARNING DIFFICULTIES (SPLD) IN MAINSTREAM PAKISTANI SCHOOL

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## ABSTRACT

**Objective:** To develop and evaluate a school based teachers training intervention for early identification and management of pupils with Specific Learning Difficulties (SpLD).

**Design:** Pre and post comparative study

**Place and Duration of study:** Primary school teachers working at one private school in Karachi between 2011-2012.

**Subjects and Methods:** A five-day (10 hours) workshop was designed for primary school teachers. The outcome of the training intervention was measured with survey questionnaire and case vignettes completed by the teacher's pre and post training programme. Data were analyzed using both qualitative and quantitative methods. 20 primary school teachers participated in the training programme.

**Results:** The t-test analysis suggested a significant difference ( $t = 5.311$ ,  $df = 19$ ,  $P = 0.000$ ) between the mean scores in the pre and post training scores. Higher mean scores for recognition of learning difficulties was noted after the training programme. The findings of the survey questionnaire were supported by the qualitative analysis of the case vignettes, which also provided a clearly description of improvement in teachers attitude and teaching approach towards child with SpLD after the training programme.

**Conclusion:** The findings of this training programme suggest that with limited resources teachers can effectively be trained to identify and manage pupils with SpLD in main stream classrooms. The outcome of this intervention has important implication for developing countries including Pakistan where the field of SpLD has been hugely overlooked.

**Key words:** Special Education Needs, Pakistan, teacher's training.

## INTRODUCTION

In Pakistan, Special Education is considered mainly for children with intellectual and physical disabilities. Even after the announcement of the policy very little work being done for Special Educational Needs at the government level<sup>1</sup>. In the private sector there are a number of institutes and NGO's that have been set up that are carrying out independent voluntary work on a wide range of child mental health problems, including autism, sexual abuse, child labour, and remedial help for children with learning disabilities. However, there is a lack of collaboration or an institution providing all required services under one platform<sup>2</sup>.

The recognition of learning difficulties is a new trend in Pakistani society. More recently schools have acknowledged the need for early identification of pupils with learning problems, however the lack of resources and qualified teaching staff emphasis the need to train other teaching staff including subject specialist teachers

and academic support teachers. Research in Pakistan has suggested a lack of awareness even amongst medical professional regarding SpLD. A study aimed to explore the abilities of general practitioners and paediatricians in Pakistan to screen for ADHD and SpLD based on their awareness regarding the risk factors and symptoms of SpLD and ADHD concluded only 13.7 % of GPs and 21.6 % of paediatricians had any knowledge sufficient for effective diagnoses and assessment<sup>3</sup>. Alarming, not a single GP or paediatrician was adequately familiar with the established risk factors and clinical symptoms of SpLD. This study pointed out the urgent need for front-line professional including GP and teachers to be trained in the identification and management of children with ADHD and LD.

Research literature suggests a successful pilot study was conducted in Pakistan to improve teacher's knowledge and attitude regarding ADHD after a one week training programme<sup>4</sup>. The success of this training programme suggests it is possible to conduct cost-effective school based teachers training interventions and provide knowledge and skills needed for early identification and management of pupils with behavioural difficulties. The main rationale of this present teachers training programme is to develop and evaluate the effectiveness of school

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based intervention for early identification and management of pupils with SpLD. The umbrella term Specific Learning Difficulties (SpLD) is used to cover a wide variety of conditions, including dyslexia, dyspraxia, dyscalculia and ADHD<sup>5</sup>. The present training focused mainly on the identification and management of Dyslexia.

## SUBJECTS AND METHODS

This study was carried out at a private school in Karachi. The school authorities were informed about the present study and written consents was obtained from the school principals and participants. The authorities were further asked to identify 20 primary school teachers.

### The training workshops

A ten hour training programme on Specific Learning Difficulties was conducted. The programme consisted of five sessions (two hours each). The sessions were delivered using an interactive approach and a combination of video clips, handouts, and presented material. The sessions covered several areas, including a description of specific learning difficulties; how these present at school; their role as risk factors and an outline of possible outcomes; and classroom management strategies. The teachers were also provided with written material covering all these topics. A brief description of the five sessions is discussed in table 1.

**Table 1: Outline for training intervention (Specific Learning Difficulties)**

Session 1	Session 2	Session 3
<p><b>Introduction to SpLD</b></p> <ul style="list-style-type: none"> <li>Group discussions on common learning problems</li> <li>DSM-IV and ICD-10 criteria for SpLD</li> </ul>	<p><b>Teaching SpLD pupils I</b></p> <p><b>Synthetic phonics</b></p> <ul style="list-style-type: none"> <li>Importance of phonics</li> <li>Types of phonics</li> <li>Jolly phonics</li> <li>Phonics activities</li> </ul>	<p><b>Teaching SpLD pupils II</b></p> <ul style="list-style-type: none"> <li>Teaching letter recognition</li> <li>Improving writing skills</li> <li>Enhancing memory and concentration</li> </ul>
<p><b>Session 4</b></p> <p><b>Teaching SpLD pupils III</b></p> <ul style="list-style-type: none"> <li>Improving reading skills</li> <li>Fun with maths</li> </ul>	<p><b>Session 5</b></p> <p><b>Assessment and Evaluation for children with SpLD</b></p> <ul style="list-style-type: none"> <li>Class and homework assignments</li> <li>Use of ICT</li> <li>Designing examination papers and evaluation criteria</li> </ul>	

## Outcome Measures

Teacher's knowledge and recognition of specific learning disabilities

Two measures were used to determine teachers change in knowledge and recognition of Specific Learning Difficulties (SpLD).

### A-Survey Questionnaire

Teacher's knowledge and recognition of Specific Learning Difficulties (SpLD) was measured by rating scales. The questionnaire consisted of two sections. The first section covered demographic details (age, gender, teaching experience, qualifications, and previous trainings). The second section consisted of 20 items. It included items measuring knowledge of learning difficulties, prevalence and teaching styles. The participants were asked to read the items and select one of the responses they felt was appropriate out of an option of Yes, No, Don't know. This measure was repeated post-training to evaluate changes in recognition and knowledge of specific learning disabilities and classroom management. Other studies have used a similar measure

### B- Case Vignettes

Four case vignettes were presented individually to the teachers. The teachers were asked to describe how best they would support a child with the presented learning difficulties. The same cases were provided pre and post training to determine a change in teacher's attitude following the training intervention. The responses were analyzed using qualitative approach.

## RESULTS

### Quantitative analysis: Statistical test

The change in knowledge pre and post training was analyzed using statistical test (table 2 & 3). The t-test analysis clearly suggests a significant difference ( $t= 5.311$ ,  $df= 19$ ,  $P=0.000$ ) between the mean scores in the pre and post training scores. Higher mean scores suggesting more correct responses were noted in the post training scores ( $X=12.0$ ) compared to ( $X=7.95$ ) in the pre-training.

**Table 2: Mean SD and St. Error values pre and post training**

Intervention	Mean	N	Std. Deviation	Std. Error
Pre-training	7.95	20	2.78	0.62
Post-training	12.0	20	2.17	0.48

**Table 3: T-test between pre and post training scores**

Intervention	t	df	P value	Mean	Std. Deviation	Std. Error	95% CI
Pre-post training	5.311	19	0.000	4.05	3.40	0.76	5.64-2.45

## Qualitative analysis: Pre training case vignette responses

Three major themes were identified prior to training intervention. These included a need for psychical and psychological assessment as well as more classroom based strategies such as the need for specialized teaching method and use of praise and rewards, the need for parental involvement was also noted a consistent theme.

### Refer for physical/psychological assessment

Participants emphasizes the need for an eye examination to ensure that the child had no physical deficits, some of the participants felt the need to refer the child for a psychological assessment to determine the nature and cause of the child learning difficulties.

*“First of all need to get the eyesight tested, depending on its results make plan, and provide individual attention and support” (Class teacher)*

The need for a psycho-educational assessment was also identified.

*“Initial psychological assessment needs to be carried out to determine the exact problem areas and then design appropriate activities” (Class teacher)*

*Need to refer the child for a detailed psycho-educational assessment (English teacher)*

### Class accommodations for SpLD pupils & Need for encouragement and rewards

A number of teachers suggested variety of teaching methods to help the child learn, use of phonic and activity based, play and learn teaching environment were the most commonly reported teaching methods.

*“Special time alone..one to one support for reading, help develop confidence through games and activities” (Class teacher)*

*“Teach phonic, using different methods such as letter recognition using flash cards” (English teacher)*

*“Maybe he has problems in writing..or he does not write as well as other pupil in his class.. if teacher encouraged him and gives him support may be the problem will be better” (class teacher).*

The need for encouragement and a clear system of reward and praise to motivate the child was emphasized by majority of teachers.

*“Teacher should motivate pupil to start work with the class and then encourage the child with praise and reward to help complete the work in slow steps” (English teacher)*

### Parental involvement

Apart from the need for classroom management teaching methods, the teachers felt that in order for assist-

ing the child's learning parental involvement is essential to produce effective change.

*“Parents need to be invited to offer support and advice” (Math's teacher)*

### Post -training case vignette responses

Following the training intervention although the main themes remained the same, striking changes were noted in the responses of the teachers to the various case situations. In pre-training phase most teachers did point out the need for using different teaching methods, however none of the participants in the pre-training phase clearly described what methods can be used with SPLD child. In comparison to pre training, following the training intervention all participants were more specific about the use of various teaching techniques and how and what strategy to apply for children with SPLD.

Three major themes were identified at the end of the training intervention. These include a need for specific teaching strategies and system of praise and rewards, parental involvement and the need for confidence and self-esteem building.

### Teaching strategies for SpLD pupils & Need for encouragement and rewards

*The participants were much clearer about the use of different teaching methods after the training programme*

*“The teacher will help the pupil to write down from the board and if he needs the teacher will provide him with helping cards that will make it easier for the pupil to copy the material. Extra time can also be provided to the pupil according to his needs. All the time the teacher will provide continued encouragement and support” (Mathematics teacher)*

*“Make her do individual reading, make flash cards of first simple words with sounds and pictures then gradually introduce complex words. Teach her b/d technique when using finger alphabets, when she has mastered this introduce p/q” (English teacher)*

*“Use multi-sensory technique to teach the phonics, using different phonic games to match and identify different sounds. For behavior modification the child can be made responsible for certain tasks so she can develop sense of responsibility and gain confidence... this will improve her self-image and at the same time she will easily achieve the goals” (Class teacher)*

### Parental involvement

Most of the participant's emphasized the need for parental counseling and awareness. Parents can also be taught the various strategies to apply them in home environment ensuring maximum effectiveness.

*“The mother has to be told that he is not lazy or dumb, but has special educational needs; mother should*

also be taught strategies to work with child at home using notes and flash cards. Reward and encouragement should be provided”.

*“I will explain the mother about how special he is and then involve her to help me out in meeting his needs. The child will be taught using different reading techniques and using the golden rule... tell him words where he stops so that he can gain confidence. I will try to enhance his reading intelligence and that will help the child to be a good writer as well”.*

### **Improving reading and building confidence and self-esteem**

The post-training response pointed out the need to use teaching strategies that not only aid academic performance but also help in building confidence and self-esteem of the SpLD pupil by providing a fun and secure learning environment.

*“Explain the difference between sounds by using different hand movements so she can get familiar with it and do not ask her to read it in front of everybody. Per-reading assignment can be given so that she has practiced her reading assignment before class activity; this can give her confidence and does not make her feel aloof from her peers in the classroom”.*

*“Introduce letter sounds (phonics) using different techniques such as finger alphabets. Work with play dough, sponge paints and prints to form letters and matching sounds. These activities ensure that a multi-sensory learning environment is created which makes learning more fun, builds confidence and self-esteem and has a lasting effect”*

### **DISCUSSION**

This study demonstrates that it is feasible to develop and deliver an educational intervention that increases teachers’ recognition and classroom management of children with learning difficulties. The qualitative findings complemented the results of statistical analysis.

World-wide one in ten people have dyslexia and many of these go undiagnosed and unrecognised. Often this is because teachers lack the skills to identify and support children who are dyslexic and need to be diagnosed or given extra support<sup>6</sup>. Recent international review has recommended that teacher training programme should include awareness of Dyslexia/SpLD<sup>7</sup>. Early identification and appropriate specialist support for children with specific learning difficulties through specialist teacher training can offer significant savings over the current long term cost of literacy and psychological difficulties. School based training programmes have indicated that early identification with targeted intervention could prevent reading problems from derailing a child’s education. Early intervention may also help forestall, or at least lessen, some of the reading difficulties that result from dyslexia<sup>7</sup>. The present pilot training confirmed changes in responses

teachers’ knowledge about identification of SPLD and management of children with learning difficulties. These findings reflect the benefits of such an intervention and emphasis the need for regular school based trainings to effectively meet the needs of pupils with SpLD.

Despite the usefulness of this training programme, it has a number of limitations. In terms of measures, the study used questionnaires rather than an interview to evaluate the effectiveness of the training outcome for the teachers. The questionnaire was based on a rating scale technique. The questionnaires were designed specifically for this study and were not standardised<sup>8</sup>. Despite its extensive use, studies found that teachers attributions about a child’s behaviour presented in a real situation differed significantly from their attributions about the same behaviour, presented in a vignette at a later date<sup>8</sup>. The final and most essential limitation of the study is that it leaves questions of whether improvements in knowledge will be maintained over time and also whether such endeavours improve long-term outcomes for the child.

### **RECOMMENDATIONS AND IMPLICATIONS**

Despite numerous limitations, this study concludes that training teachers increases their knowledge about Specific learning difficulties, further follow-up studies are needed to determine the long-term benefits of early recognition or management of children with difficulties. Studies have suggested that school based mental health interventions are also highly recommended in low-income developing countries like Pakistan, where mental health issues are highly stigmatized<sup>9</sup>. Positive mental health training interventions focusing on early identification can reduce the social barriers and results in long term effective academic and social outcomes<sup>10</sup>

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