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PREVALENCE OF LEARNING DIFFICULTIES AMONG SCHOOL STUDENTS IN KERALA

Abdul Gafoor, K[*]

Abstract

This study estimates the percentage of incidence of students who are categorized as Learning Disabled in schools of Kerala, along with estimating studying prevalence of students categorized by schools as mentally Retarded (MR), Visually Impaired (VI), Autism, ADHD and Orthopedically Impaired and investigates perceived difficulties of schools in facilitating the inclusive education of these children. The sample is 31 government and government aided schools drawn by simple random procedure with the involvement of 26382 students. There is variation among schools in prevalence of students with LD and other impairments. In a school of average size of 850, LD and other categories of SEN have near 40 students. In general, teachers categorize five per cent of students as belonging to SEN categories; half them being learning disabled (2.23%) and half belonging to MR, VI, Autism, ADHD, HI, and OI (2.53%). The rate of incidence of SEN children assessed by this study surely is less than what can be expected in the population, as the study considered share of the relevant age group who attend the school only. Implications are added.

Key Words: Learning Disability; Mentally Retarded; Visually Impaired; Orthopedically Impaired.

Introduction

Students with learning difficulties are fairly common in schools. However, it is sensible that incidence of learning difficulties varies across schools and countries. The rate of incidence of difficulties related to learning can lie between 12 per cent and 30 per cent of the school population (Westwood, 2004). As the attribution of 'learning difficulty' (LD) is quiet high, literature describe such identification of difficulty as 'garden variety' learning difficulty (Badian, 1996). Confusing the situation, students labeled as learning difficult or disabled is of below average intellectual level, and often are from lower socio-economic and deprived backgrounds. This makes identifications of LDs even more complex in Indian context. In a state like Kerala with totally literate populace, where people are more aware of such difficulties of children, attribution of

[*] Associate Professor, Department of Education, University of Calicut, Kerala

LD to students with otherwise inconspicuous difficulties cannot be ruled out. For example, ADHD is a popular term in educated populace of Kerala in recent years and there is consequent identification of a good proportion of children as ADHD, many a times falsely.

Elsewhere too, the prevalence of learning disability identification has increased dramatically in the past 20 years. Washington Summit on Learning Disabilities in 1994 suggested the prevalence of LD as 15% of the population and 52% of all students with disabilities served in special education. The "real" prevalence of LD is subject to much dispute because of the lack of an agreed-upon definition of LD with objective identification criteria. Some researchers have argued that the currently recognized 5% prevalence rate is inflated where as others argue that LD is still under identified (Lyon, 1996). A major problem in reporting prevalence rates of LD emerges both theoretically and practically from the interpretation of 'normal' or 'average' intelligence (Kavale, 2002). Further uncertainty arrives when some researchers consider all low achievers as 'learning disabled' (Fuchs, et al., 2002).

Types and Extent of Special Education Need (SEN) Children in Schools

Outside the confounding "Garden Variety" identification of LD liea very much smaller sub-group of individuals with normal intelligence and no obvious impairment; who have incredibly severe problems with either or both literacy and arithmetic. These students have been labelled 'learning disabled' (LD) or 'specifically learning disabled' (SLD or SPLD) to separate them from 'garden variety' students. Paralleling the estimates of learning difficulties, estimates of the prevalence of SPLDalso vary widely from 1 per cent to 30 per cent of the school population (Fuchs et al., 2002). An estimated 16 per cent to 20 per cent of the general school population is said to have 'garden-variety' short term or longer-term problems in acquiring literacy skills in specific. Prevalence of LD in United States is 5 to 6 per cent of the school population (Bradley, Danielson & Hallahan, 2002; Silver & Hagin, 2002); but in most other countries the percentage of students diagnosed with genuine learning disability is reportedly lower.

In UK, identification of SEN, associated with LDs in the age range 7-15 (at at which the measure is considered most stable) is 2.56% for girls and 4.19% for boys in 2010 (Emerson& Robertson, 2011). Narrow band definitions based on conservative cut-offs place the prevalence rates of SLDs between 4% and 8%, but, broad based surveys show prevalence rates of up to 18% with high incidence rates in early school years, peaking around the end of primary school (age 8-10 years), and new "cases" continuing to be identified through middle and high school, and even higher education and beyond.

There are other kinds of learning difficulties as well. Emotional and behavioural disorders (EBD) encompass conditions such as chronic anxiety, phobias,

personality disorders, conduct disorders, oppositional defiant disorder, aggression, mood disorders, depression, and immature behaviour patterns (Gupta, 1999). The prevalence of serious overall emotional and behavioural difficulties showed no trend in US during 2001-2007 and fluctuated around 5%, but it showed differences among different ethnic groups; with a lower prevalence of difficulties among younger children aged 4–7 years compared with older children aged 8–17 years (Patricia, Cynthia & Catherine. 2012).

Estimated prevalence of impaired vision (blindness and partial sight) in developed countries, likewise, is approximately 0.2 per cent of the school population (Arter, et al., 1999). This is far lower than what can be expected in a country like India. Hearing impairment (HI) can have serious implications for learning. Prevalence rates for significant hearing loss although as low as 1 per cent of the school population (Westwood, 2004) vary from country to country. Differences in HI rates very much reflect quality of health care services and the availability of identification and rehabilitation services, and hence can be much higher in nations which are economically weaker.

Some students with poor attending behaviour in school can have a specific 'attention deficit disorder', with or without hyperactivity (ADD and ADHD). ADHD is early in onset and is a highly prevalent neurobehavioral disorder persisting into adolescence and adulthood. As with other difficulties, estimates of incidence of ADHD also vary widely. The generally accepted rate of ADHD is about 4 per cent of school-age students – with ¾ of them being boys though estimates range from approximately 7% to 10% (Brown & Perrin, 2007).

Estimates of Prevalence of Learning Difficulties in India

During the last decade or two, there is an increasing awareness and identification of children with LD in India too. Despite this growing interest, the nation still is to become clearer about the incidence and prevalence of LD in India (Kundu, 2000). Policy makers, educators, and child care persons alike still have no clear idea about the incidence and prevalence of LD. The multilingual social context in India is a hurdle that makes not only identification very difficult but also, appraisal of occurrence next to impossible.

India relies on the projections made by sample surveys, as no population-based study has been conducted at the national level to provide authentic data on the prevalence and incidence of disability. A few studies in India also points to the rate of incidence of learning related problems around 10 present of the age groups. For example, the National Sample Survey Organization (NSSO 1991) estimated that approximately 100 million Indians are affected with one or more disabilities. This projected nearly 10% of Indians with some disabling condition. NSSO (1991) estimated also that approximately 20 per cent of rural disabled individuals were children.

However, according to the Census 2001, approximately 5% of people in India are affected with impairment or disability (Arjun, & Ganapathi, 2014). An epidemiological study (1995-2000) of child and adolescent psychiatric disorders in urban and rural areas of Bangalore by National Institute of Mental Health and Neurosciences (Srinath et al. 2005), found 12% prevalence of child and adolescence psychiatric disorders among 4-16 year old children in urban middle class, slum and rural areas.

An epidemiological survey of 1403 children between the ages of 8 and 12 in district of Calicut (Kerala State) showed a prevalence of childhood psychiatric disorders of 9.4%. There were strong associations with socio-economic parameters but, more importantly, with both general school underachievement and specific difficulties with reading and vocabulary (Hackett et al, 1999). Sree Chithira Thirunal Institute of Medical Sciences and Technology in Kerala (1997) also found nearly 10% of the childhood population with developmental language disorders of one type or the other and 8-10% of the school population with learning disability of one form or the other RCI.

Review of Indian studies on prevalence of learning disability shows that, prevalence of various types of deficits of scholastic skills to be 3-10 per cent among students population, with estimates falling below 2 per cent in some studies (Arun et al, 2013). Door-to-door survey in 1993 in a block each of ten selected states of India, estimated nearly 2.5% of school-age children have disability of a given kind. Against this, disability (in one village of Tamilnadu is reported as 10 per cent of the adult population though number of disabled children - i.e., those under the age of 14, was very low indeed – approximately two per cent of the non-adult population (Lang, 2001). The prevalence study on Learning Disability in Mumbai reveals that near 25 per cent of those referred due to their poor school performance from the lower, middle and upper middle socioeconomic strata of society were diagnosed as having a Specific Learning Disability (LTMG, 2006). Clearly, the implications of adequate intelligence, appropriate instruction and socio-cultural factors for identification of children with LD in a pluralistic society such as India are immense and cannot be easily handled (Karanth, 2002).

Prevalence rates of students with SLDs involving math and written expression are difficult to estimate given the current lack of research evidence, with conservative estimates putting the incidence rates of SLDs approximately at 6 per cent of students (Cook L, et al., 2001). In Kerala, average student in grades 5-7 has 43.46 per cent difficulty; and lowest 10 per cent of students at Upper Primary level fail to acquire more than 70 per cent of Primary Writing Abilities in Malayalam (Gafoor, & Sajeev, 2009). Modest estimates of reading related difficulties in students of the same level were 16 per cent; but difficulty with comprehension reading is shown by 46-56 per cent of these students (Gafoor, & Kaleeludeen, 2009). It was also found that lowest 10 per cent of students at this level fail to acquire more than 60 per cent of fundamental

arithmetic skills and concepts they ought to have achieved by the end of elementary schooling (Gafoor, & Sheela, 2010).These studies indicate that given the educational and assessment practices in countries like India, the observation that the highest frequency of reading disability is observed in English-speaking countries (Grigorenko, 2001) may not be reflecting the actual state of affairs in non-English speaking counties. Rather, such observations may be pointing to need for more attention to identification of language related difficulties in non-English languages. Hence, this study to estimate the percentage of incidence of students who are categorised as Learning Disabled in schools of Kerala and to identify perceived difficulties of schools in facilitating the inclusive education of these children.

Objective of the study

The study is to estimate the percentage of incidence of students who are categorized as Learning Disabled in schools of Kerala and to identify perceived difficulties of schools in facilitating the inclusive education of these children, in addition to estimating percentage of incidence of students who are categorized by schools as mentally Retarded (MR), Visually Impaired (VI), Autism, ADHD and Orthopedically Impaired.

Sample

31 Government and Government aided schools drawn by simple random procedure from Kozhikode (n=14) and Malappuram (n=17) districts from out of around 1100 (upper primary and high schools) schools in these districts. Of them 13 were primary schools and 18 were secondary schools. Among the schools, 21 were Government and 10 were Government Aided. Together these schools housed 26382 students. The two districts from which sample schools were drawn together accounts for one fourth of the school student population in Kerala, which comes around 45 hundred thousand (General Education Department, Kerala, 2011).

Procedure of Data collection

The frequency of students with learning disabilities and other special needs children were directly obtained either from resource teacher, or from the teacher who co-ordinates the educational activities for special needs children or from the head teacher through an information blank, which also sought the respondent's perception of difficulties felt by the school in relation to special needs children and children with learning disabilities in particular.

Results

Table 1 shows the prevalence of Learning Disabled students in the sampled schools, in terms of teacher categorization of them as LD.

Table 1: Number of students identified as LD by type of management and size of school

School type		Sample School size (intake)		
		Minimum	Maximum	Mean
Aided	Intake of school	156	1695	808.60
	LD	8	70	21.30
Government	Intake of school	334	3954	871.24
	LD	5	63	17.81
Total	Intake of school	156	3954	851.03
	LD per school	5	70	18.94

Note: all values are number of students

Table 1 shows that minimum intake in the schools studied were 156; five (3.2%) of whom their teachers identified as LD. Maximum intake among the schools studied were 3954; 63 (1.59%) of whom their teachers identified as LD. On an average, every school (average school size= 851) studied in this investigation has around 19 students (2.23%) whom their teachers identified as LD. Irrespective of school size (small, average, or large), aided school teachers report more number of students with LD (5.13% in small school, 4.13% in large school; and 2.63% in average size school), than government school teachers (1.50% in small school, 1.59%in large school; 2.04% in average size school).

Table 2: Number of students identified under SEN categories

	No. of students	Learning Disability	MR	VI	Autism	ADHD	HI	OI	Disabled
Average/ schools	851	18.94	6.00	8.89	1.50	7.00	5.33	3.56	21.53
Count /schools	-	-	9	9	2	2	6	9	-
Total with -in schools	26382	587	54	80	3	14	32	32	413
% of SEN category/ school	-	2.23	0.71	1.04	0.18	0.82	0.63	0.42	2.53

Note: all values are quantity or percentage of students

Table 2 shows the prevalence of SEN children in students in the sampled schools, in terms of teacher categorization of them as belonging to a category of SEN.

Table 2 shows that against 2.23% LD students per school population; another 2.53% students in schools belongs to other SEN categories as Mental Retardation (MR), Visual Impairment (VI), Autism, ADHD, hearing impairment (HI), and orthopaedic impairment (OI). Autism, hearing impairment and orthopedic impairment (approximately 0.5%) are comparatively less prevalent than Mental Retardation, Visual Impairment and ADHD (approximately 1%). While in percentage terms, the prevalence of SEN children in schools seems small, in every school, teachers identify 2 to 10 students each as belonging to SEN categories like Mental Retardation, Visual Impairment, Autism, ADHD, hearing impairment, and orthopedic impairment; in addition to around 20 students with Learning disability, in a school of average size of 850. Together LD and other categories of SEN have near 40 students in a school of average size of 850. In other words, teachers categorize five per cent of students as belonging to SEN categories; half them being learning disabled and half belonging to MR, VI, Autism, ADHD, HI, and OI.

How do teachers perceive inclusion of SEN children in schools?

Teachers were asked also about the challenges they face in practicing inclusive education of students who form around 5 per cent of student population in their own estimate. The following are the teacher-perceived challenges in schools to practice inclusive education. The challenges are ordered according to the number of schools (values in parentheses) where from such challenges were reported (N=31).

- Over crowdedness, lack of time to teachers for proper care (15)
- Lack of proper attention and co-operation from parents, lack of awareness (12)
- Availability of resource teacher (permanent) only once or twice per week (12)
- Lack of clear identification of LD students (inability or difficulty) (11)
- No special rooms for LDs and lack in other resources and facilities (9)
- No training for teachers and other personnel (8)
- Lack of availability of teaching learning material (6)
- No special coaching/methods for LDs/unsuitable teaching learning methods (4)
- No specific curriculum for LDs/Improper curriculum (4)
- No government allowance to LD students (1)
- Lack of opportunity for adapting the lesson for LDs and lack of competence in doing this (1) and Classroom management (1).

Thus, schools still face challenges in providing inclusive education due to large class size, lack of training, lack of parental support and special resources-both personnel and infrastructure, challenges in identification of LD students, and due to equivocal curricular elements; including in aims, methods and resources.

Conclusion

The rate of incidence of SEN children assessed by this study surely is less than what can be expected in the population, as the study considered share of the relevant age group who attend the school only. Children with severe disabilities will not be attending the regular schools at all. Inclusive education is very useful. Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, of the Government of India, include as blindness, low-vision, hearing impairment, loco-motor disability, mental retardation, leprosy and mental illness as disability. Autism, cerebral palsy and multiple disabilities like mental retardation with blindness are recognized as disabilities in the National Trust Act of 1999.LDs are not recognized by these acts and hence learning disabled children, as against other categories of students, are a neglected lot in schools. Not only disability laws, neither educational policy nor school practices have clear cut understanding for identifying various categories of LDs, in defining the learning and performance standards in various school tasks for these categories, and in providing them suitable and enriching learning experiences that help them successfully meet their challenges.

However, SEN children, other than LD, are recognized by school policies, but still need proper attention with respect to quality of education such children receive in school. This needs appointing (more) resource teachers permitting them to be available throughout school time, instead of present once or twice a week. Lack of training to regular and resource teachers to meet varied needs of different categories of learners also leads to poor attention to LD children. For example, children with autism and accompanying intellectual disability are among the most difficult to integrate and maintain in regular classrooms, though intensive behavioural approaches for teaching and management have proved to be the most effective in helping these students learn and develop social behaviours.

Most of regular teachers feel that they are not equipped to address individual differences in learning abilities in classrooms. In such a situation, continuing with the term "LD" makes little sense for school programmes. Instead, schools, educators and researchers need to clearly address each type of LD individually to arrive at flawless definitional statements and a articulate understanding of etiology, developmental course, identification, prevention, and management.

There should be immediate attention to development of professional competence of teachers to meet needs of SEN children. Programmes for Counselling for parents, allocation of special classrooms and special time, and strengthening Block

Resource Centres (BRCs) for identifying, classifying and enriching the learning experiences of SEN children also needs attention. Other aspects that require attention of researchers, educators and statesmen are development of screening for LDs in local languages, equipping all teachers with further training to care for LDs and for their inclusion through peer teaching, group activities and teacher interaction. Such movements are to be supported by reducing class size further, funding extra and special remedial classes, and use of appropriate learning aids and development of suitable infrastructure.

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