

SPECIFIC LEARNING DISABILITIES AMONG SECONDARY STUDENTS OF KARBI ANGLONG DISTRICT OF ASSAM: AN INVESTIGATION

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Abstract: The study was conducted on the high school students of Diphu Sadar Sub-Division of the Karbi Anglong District of Assam. Initially, 524 secondary students of 9th and 10th grade were randomly selected. By the Group Intelligence Test of Ahuja, 361 students were found with an Average and Above Average level of IQ. To investigate the presence of Specific Learning Disabilities (SLD), the Learning Disability Battery (LDB-Battery) of Bhargava and Bharadwaj was administered on 361 students. Results of the study reveal that SLD in reading (Dyslexia), writing (Dysgraphia), and arithmetic (Dyscalculia) significantly exists among secondary students of the Karbi Anglong District of Assam.

Key words: Specific Learning Disability, Secondary Students, Dyslexia, Dysgraphia, Dyscalculia, Karbi Anglong.

Introduction:

There is a common fact that a considerable number of learners who come to schools for education and have no mental and physical abnormality, but they have capabilities like difficulty or difficulties in identifying letters, words, numbers or communicating with others and so on. They are not able to learn as their peers in the class. These pupils have for years been ignored, misdiagnosed, or mistreated by terms such as hyperactivity, hyperkinetic syndrome, minimal brain dysfunction, learning disorder, etc. They have been termed as lazy, dumb, backwards, a fool, unmotivated, etc. These pupils have specific learning disabilities or disorders. The concept of learning disability has recently been established and defined.

Defining Specific Learning Disability:

Learning is the developmental process of the acquisition of new habits, knowledge, experience, attitude, and other capabilities, and this tendency is universal. It refers to capability or ability. But, a learning disability refers to ‘incapability’, ‘incapacity’, ‘inability’ that prohibits the learning processes of an individual with normal physical and mental health. Learning disability disturbs learning to read, write, do sums, and other traits of personality, like concentration of mind, memorisation, comprehension, communication, etc. A learning disability can affect one’s ability to learn, think, speak, read, write, spell, and compute mathematics (Rao, 2018). Persons with a learning disability have average intelligence or above-average intelligence. Their eyesight and hearing capacity are normal. They are free from physical abnormality (Goel, 2011).

An eminent American psychologist, Samuel Kirk, coined the term ‘Learning Disability’ in the year 1963(AD). The term Learning disability was used to designate a class of school-age children who were not members of any of the prevailing categories of exceptional children, but who needed special services in education. He also used the term as a ‘disorder’ or ‘difficulty’ in the development of language, speech, reading, and communication skills needed for social interaction and adjustment. More or less, it matters to the individuals irrespective of caste, creed, sex, colour, religion, birthplace, economic status, social position, etc.

In the words of Bateman (1965), “Learning-disabled children are those who manifest an educationally significant discrepancy between their estimated intellectual potential and actual level of performance

related to basic disorders in the learning process, which may or may not be accompanied by demonstrable central nervous system dysfunction and which are not secondary to generalized mental retardation, educational or cultural deprivation, severe emotional disturbance or sensory loss.”

According to G. Reid Lyon (1996), “Learning disability is not a single disorder, but is a general category of special education composed of disabilities in any of seven specific areas: i) receptive language (listening), ii) expressive language (speaking), iii) basic reading skills, iv) reading comprehension, v) written expression, vi) mathematical calculation, and vii) mathematical reasoning. These separate types of learning disabilities frequently co-occur with one another and also with certain social skills deficits and emotional or behavioural disorders, such as attention deficit disorders. Learning disability is not synonymous with reading disability in dyslexia, although it is frequently misinterpreted as such.”

The Individual with Disabilities Education Act (IDEA, 2002), American Special Educational Law defines specific learning disability as a disorder is one or more of the basic psychological processes involved in understanding, or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. However, learning disabilities do not include learning problems that are primarily the result of visual, hearing or motor disabilities, or mental retardation or emotional disturbance or environmental, cultural or economic disadvantage. The definition under IDEA is exclusionary of language and learning disability does not refer to mental retardation, emotional disturbance, cultural difference, or environmental or economic disadvantage.

The Learning Disabilities Association of Canada (2002) defines learning disabilities as learning disorders that may have an impact on a person’s activities, like acquisition, organisation, retention, perception, or use of verbal or non-verbal information. These disorders change learning in children who otherwise exhibit at least average abilities needed for thinking and/ or reasoning. Learning disabilities and global intellectual deficiency are different things. The LD Roundtable developed (2001) defines the term as follows: “Concept of Learning Disability: Strong converging evidence supports the validity of the concept of specific learning disabilities (SLD). This evidence is particularly impressive because it converges across different indicators and methodologies. The central concept of SLD involves disorders of learning and cognition that are intrinsic to the individual. SLDs are specific in the sense that these disorders each significantly affect a relatively narrow range of academic and performance outcomes. SLD may occur in combination with other disabling conditions, but they are not due primarily to other conditions, such as mental retardation, behavioural disturbance, lack of opportunities to learn, or primary sensory deficits.”

In short, learning disability, presently specific learning disability, is a generic term that involves diverse types of disabilities or disorders due to inferred central nervous system dysfunctions. A learning disability may occur in areas like reading (Dyslexia), writing (Dysgraphia), spelling (Dysphasia), calculation (Dyscalculia), attention, memory, reasoning, communication, coordination, etc. These are inherently acquired attributes of the man that influence both learning and activities, irrespective of intelligence level. These attributes are essentially not the consequences of visual and auditory or motor impairment or emotional, cultural, and environmental disadvantage, of course, learning disabilities and any of these may take place together. Generic variations, biological factors, the incidence in the pre- to post-natal period, or any other succeeding incidences resulting in neurological impairment may cause learning disabilities.

Some of the Special features found among the students with SLD, as Horowitz, D. et al. have put forward (cited in Kirk, 2012), such as:

- **Speaking or verbal signs:** slow verbal growth, defective vocal adjustment, poor word stock,
- **Signs related to reading ability (Dyslexia):** they need more time for identifying and understanding words, have more ability to grasp by hearing than reading, have an enigma in

reading fast, they usually alter words, add and distort the pronunciation, omit or miss out on words while they read,

- **Signs related to writing (Dysgraphia):** they are unenthusiastic and lethargic in writing and recording activities, use to bring back words and letters while they write, commit a mistake to maintain a gap between letters and lines and in using the capital form or small form of letters at the time of writing, they fail to write or name the words correctly.
- **Signs related to calculations (Dyscalculia):** they have very difficulty doing sums, calculations, and recalling multiplication tables, fail to deal well with data, numbers, figures, drawing pictures and graphs, charts, calculation of time, etc.,
- **Signs associated with social and emotional areas:** they face a challenge to apprehend the approaches, thoughts, opinions, emotions, etc. of the people around them, are weak to maintain self-restrain, will-power, instincts, patience, calmness, etc., have problems and confusion with accepting pragmatic and effective aims for their career, are unaware of the intentions, interests, desires, and wishes of their friends,
- **Signs in association with gross and fine motor skills:** they may find it hard to deal with muscular activities, serious ones, may not deal with buttons, snaps, zippers, shoe laces, and others alike, may get uneasy handling or have the mastery to hold a pen/pencil properly.

Secondary Students: Secondary students in this study refer to the students of the Provincialised Secondary level schools of education of Karbi Anglong District, one of Assam. The secondary stage of education is subdivided into lower secondary and higher secondary stages, or high school and higher secondary school. As far as this study is concerned, secondary students refer to the male and female students of the 9th and 10th classes.

Karbi Anglong:

Karbi Anglong is an autonomous District situated in the central part of Assam. The district enjoys the provisions of the Sixth Schedule of the Indian Constitution. The population of the district belongs to various ethnic groups such as Karbi, Bodo, Dimasa, Naga, Hmar, Tiwa, etc. and other non-tribal people. As far as this study is concerned, Karbi Anglong refers to the three Development Blocks, such as Lumbajong, Langsomepi, and Samelangso Development Block of Diphu Sadar Sub-Division in Assam.

Review of Related Literature:

Suresh (1998) reviewed the study conducted by the Institute for Communicative and Cognitive Neurosciences (ICCONS), Kerala. It was aimed to explore language disorders in children for developing a research and rehabilitation programme for learning disabilities. The study included school children from classes I to VII for screening for learning disabilities with follow-up assessment by experts in 10 Panchayats of Kerala. The study revealed that 16% of these school children have learning disabilities.

The L.T.M.G. Hospital, Sion, Mumbai (2006) conducted a study on the specific learning disability and found that out of 2,225 numbers of children, from the lower, middle, and upper middle socio-economic sections of society, visiting the hospital for certification of any type of disability, 640 nos. (28.76%) of children were found as having a specific learning disability.

Batra (2002), Dewan (2002), and Ramachandran (2003) investigated the factors associated with learning disabilities regarding reading and writing skills among III and IV-grade children in schools. The investigation found that Children of III and IV standards are unable to read simple sentences for many factors such as non-detention of learning disabled in schools, promotion to higher classes ignoring their learning, load of the curriculum at each level, no academic support at home, lack of healthy background and thereby unable to develop creativity and critical mindset to make examinations founded on the features of Indian constitution. Besides, government schools are failing in providing sufficient learning opportunities.

Sivakami (2000) found from her study that 10 to 12 per cent of children are facing learning disabilities in English at the primary level. Her investigation also reports that the majority of students with learning disabilities experience word attack tasks as difficult in reading disability diagnostic tests. In this study, difficulties faced by almost all learning-disabled students in writing processes are letter slope, letter formation, and word spacing.

To find out children suffering from developmental language disorders and learning disabilities, the Sree Chithira Thirunal Institute of Medical Science and Technology (1997) investigated in Kerala. Findings of the study showed that nearly 10% of the childhood population has developmental language disorders of one type or the other, and 8-10% of the school population has learning disabilities of one or the other form.

Significance of the Study:

It is significant to explore the active SLDs among secondary students in Karbi Anglong District. The major tribe of the district is Karbi, and the other tribes are Boro, Dimasa, Tiwa, Kuki, Garu, Hmar, etc. The socio-economic position and socio-cultural environment have a tremendous impact on the growth and development of children. No wide study has been carried out on SLDs in the district. Studies of Hogg (2008), Wilkinson, Pial Das (2013), Logan Johnston (2009), and Stranger (2014) show that in classrooms where students are taught, their socioeconomic levels, ethnicities, and mother tongues are important factors in the formation of students' attitudes. This study would help to know the status of students with SLDs in secondary schools and to bring them into the mainstream. So, it is an urgent need to assess the issue of learning disabilities among secondary students of Karbi Anglong District of Assam.

Delimitation of the Study:

- i) It was delimited to 9th and 10th-grade male and female students of provincialised Secondary schools of four development blocks under the Diphu Sadar Sub-Division of Karbi Anglong District of Assam.
- ii) It was limited to the students of average and above-average I.Q. levels.
- iii) It was delimited to three areas of SLD, viz. dyscalculia, dysgraphia, and dyslexia of learning disabilities.

Objectives of the study:

1. To explore the intelligence levels of secondary students of Karbi Anglong.
2. To explore the SLDs among secondary students of Karbi Anglong.
3. To explore the position of SLD areas among secondary students of Karbi Anglong.

Methodology applied: It was a descriptive survey research. The study was designed to describe the status of the presence of specific learning disabilities among secondary students.

Population of the Study:

The population of this study included Provincialised Secondary Schools along with 9th & 10th grade students (Boys and Girls) of Diphu Sadar Sub-division of the Karbi Anglong District.

Sample of the study:

Firstly, the researcher selected 9 numbers of Provincialised secondary schools from four development blocks of the Diphu Sadar Sub-Division purposively, then a sample of 542 students (Boys 262 & Girls 262) of 9th and 10th classes was randomly selected.

Tools Used for Gathering Data:

Group Test of Intelligence (GTI), and Learning Disability Battery (LDB-BB),

Statistical Techniques Used:

Percentage, Average, and Bar Diagram were used for the analysis of results.

Procedure of Data Collection:

Initially, the investigator conducted a group Intelligence Test on 524 sample students (262 boys & girls each). Secondly, the Learning Disability Battery was administered to 361 students (171 from the 9th class, boys 81 & girls 90 and 190 from the 10th class, boys 103 & girls 87) of average and above average IQ students identified by intelligence test out of the initial sample.

Analysis of Data and Discussion of Results:

In order to have an overall picture of the result of the study, the data have been presented and analysed as per the objectives of the study.

Objective-1. To explore the intelligence level of Secondary Students of Karbi Anglong District.

Table -1: Distribution of secondary students of Karbi Anglong District in accordance with I.Q. Levels (N=361).

Class	Average I.Q. Level (90-109)		Above Average I.Q. Level (110-119)		Superior I.Q. Level (120-129)		Total
	Boys	Girls	Boys	Girls	Boys	Girls	
9 th Class	15.24%	16.07%	5.82%	7.20%	1.39%	1.66%	171
10 th Class	16.62%	16.07%	8.59%	6.93%	3.32%	1.11%	190
Total	31.86%	32.13%	14.40%	14.13%	4.71%	2.78%	361

Fig. 1: Representing the distribution of secondary students (Boys and Girls) of Karbi Anglong in accordance with I.Q. Levels (N=361)

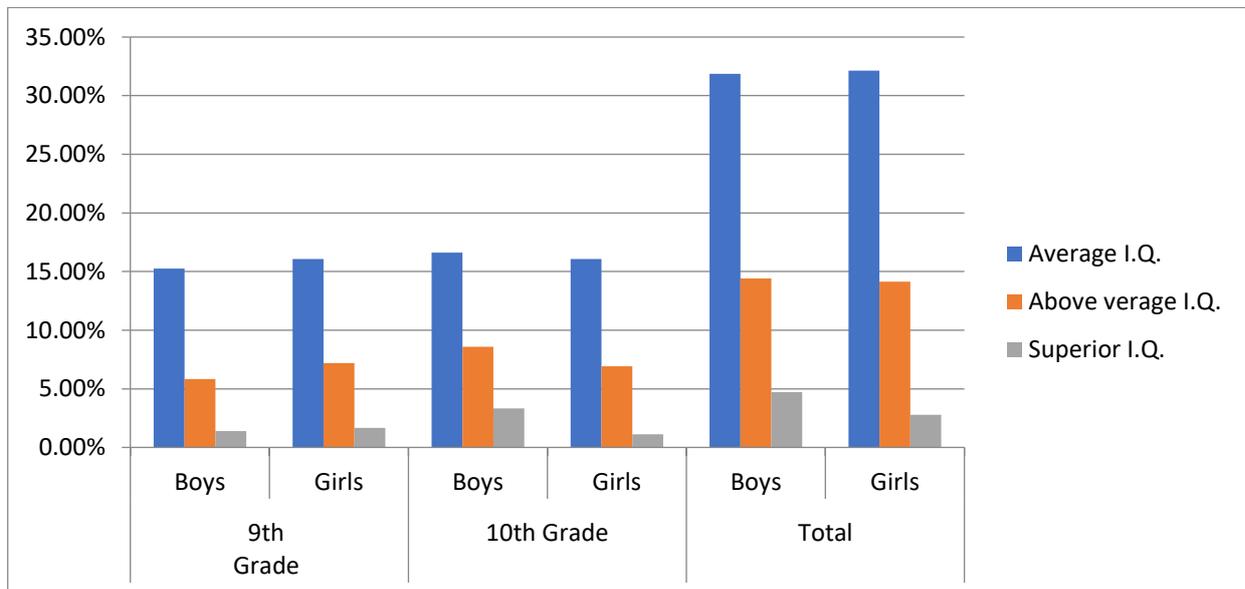


Table 1 reads that the percentage of secondary students of average, above average, and superior level of IQ is 31.86%, 32.13%, 14.40%, 14.13%, 4.71%, and 2.78% respectively.

Objective- 2. To explore the SLDs among secondary students in the Karbi Anglong District of Assam

Table 2: Distribution of SLD and I.Q. Levels of Secondary Students of Karbi Anglong (N=109).

Percentage of SLD with Average IQ	Percentage of SLD with Above Average IQ	Percentage of SLD with Superior IQ
72.47%	25.68%	1.83%

Table 2 indicates that out of 109 secondary students with SLDs, 72.47%, 25.68%, and 1.83% have average, above average, and superior levels of IQ, respectively.

Fig. 2: Representing the percentage of learners with SLDs with Average, Above Average and Superior IQ,

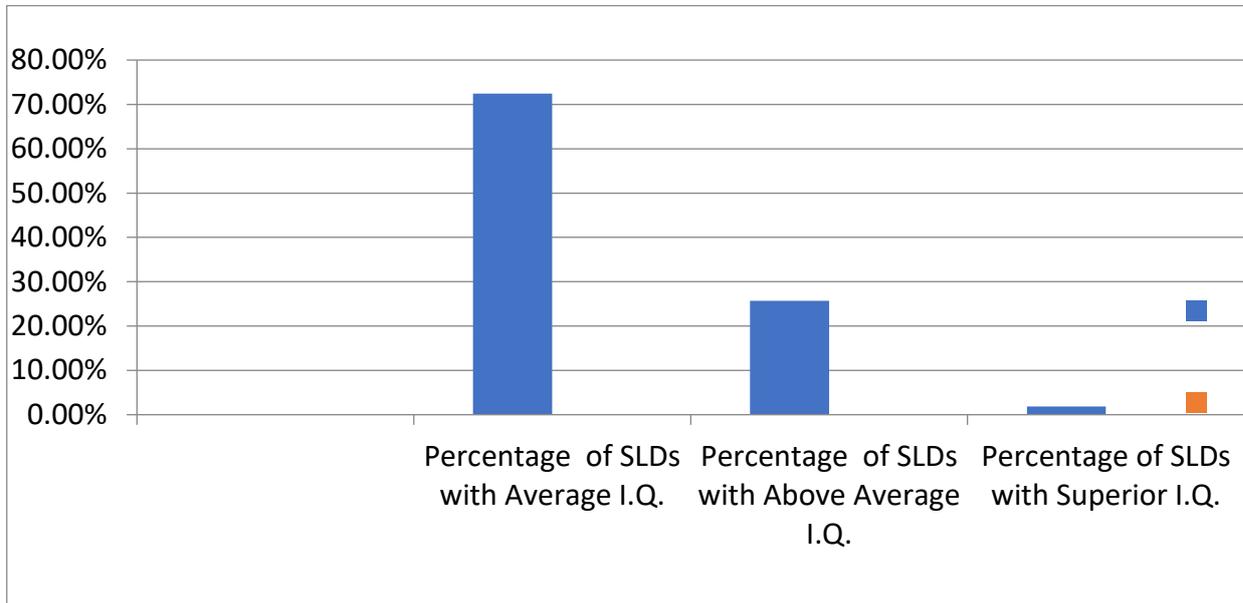
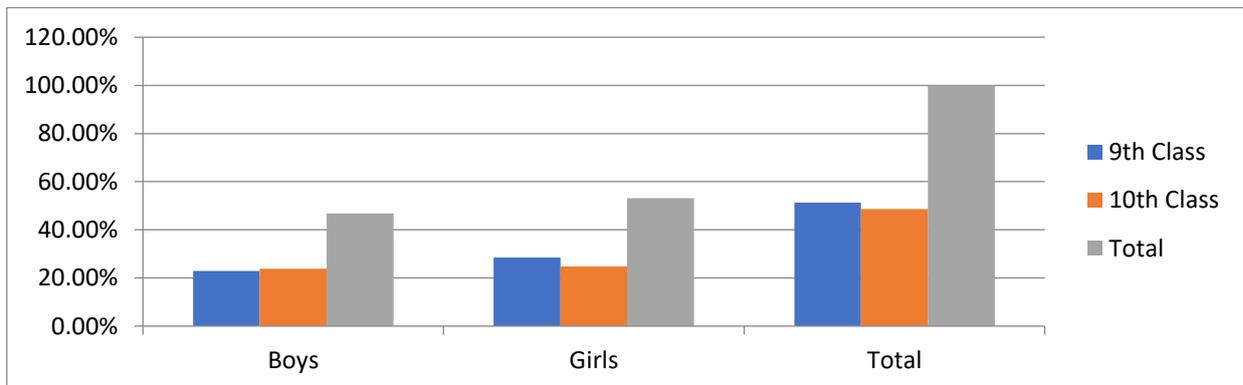


Table 3: Comparison of students with SLD in terms of in terms boys and girls (N=109).

Class	Boys	Girls	Total
9 th Class	22.93%	28.44%	51.37%
10 th Class	23.85%	24.77%	48.62%
Total	46.78%	53.21%	100%

Table 3 reveals that the presence of students with SLD among 9th and 10th grades is 51.37% and 48.62% respectively, and the presence of students with SLD among boys and girls is 46.78% and 53.21% respectively.

Fig. 3: Showing the presence of secondary students with SLD in terms of in terms boys and girls.



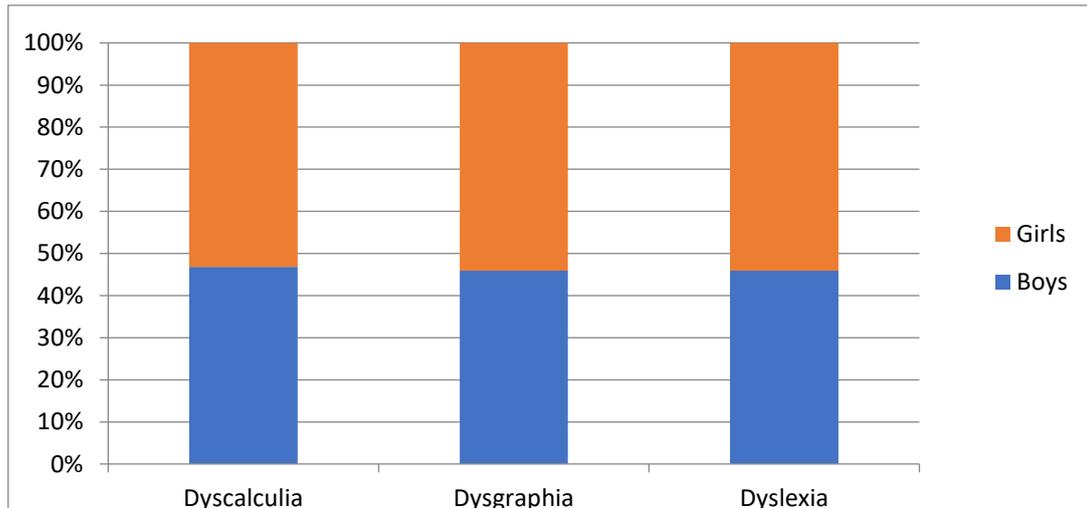
Objective 3. To explore the position of SLD areas among secondary students of Karbi Anglong

Table 4: Distribution of Dyscalculia, Dysgraphia, and Dyslexia among boy and girl secondary students of Karbi Anglong (N=109).

Dyscalculia		Dysgraphia		Dyslexia	
Boys	Girls	Boys	Girls	Boys	Girls
46.78%	53.2%	45.86%	54.11%	45.77%	53.98%

Table 4 depicts that the presence of SLD among boys and girls secondary students of Karbi Anglong in Dyscalculia, Dysgraphia, and Dyslexia is 46.78%, 53.2%, 45.86%, 54.11%, 45.77%, and 5.98% respectively.

Fig. 4: Graphical Representation of the boys and girls secondary students with SLD in Dyscalculia, Dysgraphia, and Dyslexia (N=109)



Major Findings:

1. About 69% of the secondary students (Boys and Girls) of Karbi Anglong were found to have average, above-average, and superior levels of IQ.
2. It was found that 72.47% secondary students with average IQ suffer from SLD, which is much higher than that of either above average (25.68%) or superior (1.83%) IQ students.
3. It was found that about 30% secondary students in Karbi Anglong District of Assam have specific learning disabilities.
4. It was found that the number of girls secondary students (53.21%) with SLD is more than the number of boys secondary students (46.78%).
5. The study revealed that the number of 9th-grade students with SLD (51.37%) is higher than the percentage of 10th-grade students (48.62%).
6. It was found that the number of girls students with SLD in Dyscalculia (53.2%), Dysgraphia (54.11%) and Dyslexia (53.98%) is greater than the number of boys students with SLD in Dyscalculia (46.78%), Dysgraphia(45.86%, and Dyslexia(45.77%).

Conclusion:

Specific Learning Disability has become a challenging global issue. More or less every class of formal instruction has children with learning difficulties. Some children may have multiple learning disorders. Their mode of showing signs of specific learning disabilities may vary from other children. The main focus of the teacher is to create a congenial and supportive environment for them. It is important to know the family background, socio-economic status, parental attitude and educational status of parents of the students with learning disabilities for their progress. The results of this study point out that a large number of secondary students of Karbi Anglong have severe difficulties to learn to do sums, read,

spell words, and write words. Socio-economic conditions and cultural practices of the sample population of this study were different, i.e. rural and ethnic in nature. Many of the learners covered by the study were first-generation learners. Besides, the non-availability of required learning infrastructure in the schools might help in the presence of such a significant presence of specific learning disabilities, though it is a neuro-based issue among secondary students of Karbi Anglong. Use of multisensory and adaptive teaching methods, regular contact with teachers and specialists, proper identification of disabilities, needs, strengths and self-esteem of the learners, and collaborative efforts with patience may help to bring progress in the act of learning of children with specific learning disabilities. This study will make parents, teachers, authorities, policy makers, and research scholars aware of the crucial issue of learning disability, as well as prepare them to stand with the learners vigorously.

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