



# Some Results of “Supporting Children with Special Needs” Survey Study on Children with Developmental Disabilities in Mongolia

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**Abstract.** In countries with well-developed Special Education system for children with Developmental disabilities, assessment procedures are facilitated by multidisciplinary teams with valid and reliable research tools and with provision for educational support. The special education in Mongolia is limited only to children with physical disabilities. In this research we have attempted to adapt screening tools or questionnaires on developmental disabilities into Mongolian context and reveal children with developmental disabilities in public schools and clarify teachers’ attitude toward these children. We used open-ended questionnaires and ranking checklist that include items on Autism Spectrum Disorder (ASD), and Attention Deficit Hyperactivity disorder (ADHD). The research revealed that there is a certain number of children in regular schools who share characteristics of children with developmental disabilities, those who need special education support in public schools. A further problem arises from the way in which teachers perceive developmental disabilities as a special needs’ category or just learning obstacles. In other words, teachers’ understanding of children with cognitive and behavioral difficulties is influential for further educational provision. In the future, it is essential to conduct nation-wide surveys on developmental disabilities distribution in Mongolia in order to build a proper support system, including an assessment system, and to incorporate reliable and valid tools for assessment.

**Keywords:** Developmental disabilities · Assessment · Autism Spectrum Disorder · Attention Deficit Hyperactivity Disorder

## 1 Introduction

In countries with well-developed special education system for children with physical disabilities, the term “children with developmental disabilities” is widely used to refer to children with learning disabilities, attention deficit hyperactivity disorder and autism spectrum disorder. A paradigm shift from medical approach into social model implies that educational assessment should be carried out primarily to guide the planning and educational intervention. Unfortunately, in Mongolia, special needs education is considered only in the context of physical disabilities. Currently, there are 1,847 children with

**Table 1.** Number of Children Enrolled at Public Schools in 2021–2022 Academic Year

Number of CWD at Public Schools		Primary	Secondary	High	Total
Total number of students		371,480	238,348	102,525	712,363
CWD categories (all CWD)		2,316	2,433	857	5,606
1	CWD visual impairment	222	433	295	950
2	CWD visual impairment	155	236	130	521
3	CWD speech impairment	210	337	100	647
4	CWD mental disability	471	382	53	906
5	CWD orthopedic disorder	374	385	143	902
6	CWD multiple disorder	884	660	136	1,680

visual, hearing, intellectual and orthopedic disabilities in 6 special schools, all located in Ulaanbaatar.

According to the statistics from the Ministry of Education and Science, out of total 712,363 children, some 5,606 children with disabilities were enrolled in public schools in 2021–2022 academic year [4].

According to the research on assessment of the intellectual development and social adaptability of students at special schools conducted in 2000, out of all students in four schools, 60% of children fall into the category of mild level of intellectual disabilities while 40% had average levels of IQ and had good social and self-service skills [2]. We found that some children were misdiagnosed and enrolled in these schools. So, we suggest that both groups of children who received the same test scores in the special schools as well as the public regular schools need to undergo further studies [3]. Nowadays, in order to get statistical data on children with disabilities enrolled at the regular public schools, the Ministry of Science and Education uses classroom teachers to ask students to fill and complete questionnaires and survey forms (Table 1). Consequently, the number of children with disabilities varies due to the teachers' understanding of disability categories. Besides, there may be some other cases where teachers rely on medical diagnosis of their students. Therefore, we have made an attempt to identify children with special needs, specifically those with developmental disabilities, with a reliable questionnaire method [5]. Our purposes were (a) to check adaptation of the questionnaire into the Mongolian version and its application, (b) to evaluate previous results on identification of children with special needs, in particular those with developmental disabilities, and (c) to determine ways for further support of children with special needs based on concerns of teachers at public schools.

## 2 Methodology

We tried to include participants from both urban and rural or aimag (province) areas. Thus, a total of 383 teachers took part in the questionnaire survey (Table 2). Of these, 172 teachers participated from Ulaanbaatar, and the remaining 211 teachers were from different provinces (aimags).

**Table 2.** Respondents teachers by schools in UB and Aimags

Ulaanbaatar	Number of Teachers (Code)	Provinces (Aimags)	Number of Teachers (Code)
School # 53	25 (61–85)	Dornod	28 (86–113)
School # 79	30 (331–360)	Uvurkhangai	30 (301–330)
School # 72	20 (141–160)	Umnugobi	33 (1–33)
School # 6	15 (166–180)	Central	30 (241–270)
Affiliated School (MNUE)	5 (61–85)	Selenge	30 (181–210)
School # 78	28 (391–418)	Total	211
School # 20	29 (361–389)		
School # 23	16 (221–227)		
School # 115	24 (271–294)		
School # 113	20 (34–53)		
Special School # 63, 70	20 (121–140)		
Total	172		

In our survey, we applied the strength and difficulties questionnaire (SDQ) developed by R.Goodman [5] along with ASQ and ADHD (based on DSM -V) questionnaires. A total of 383 teachers from Ulaanbaatar and five aimags responded to the questionnaire. The survey consisted of two main parts:

I. The classroom teacher will think about one student “who need special attention” and respond to questionnaire and find out what kind of help and support is being provided to them.

The first part of the questionnaire consists of 6 sub-sections:

An open questionnaire about the most-worried child;

An open questionnaire about the child’s daily life;

An open questionnaire about the child’s attitude towards his/her teacher, attitude towards his/her friends, attitude towards learning, attitude towards daily life, self-esteem, and the school environment;

SDQ- strength and weakness questionnaire;

ASQ- Autism spectrum questionnaire;

ADHD- Attention deficit hyperactivity questionnaire.

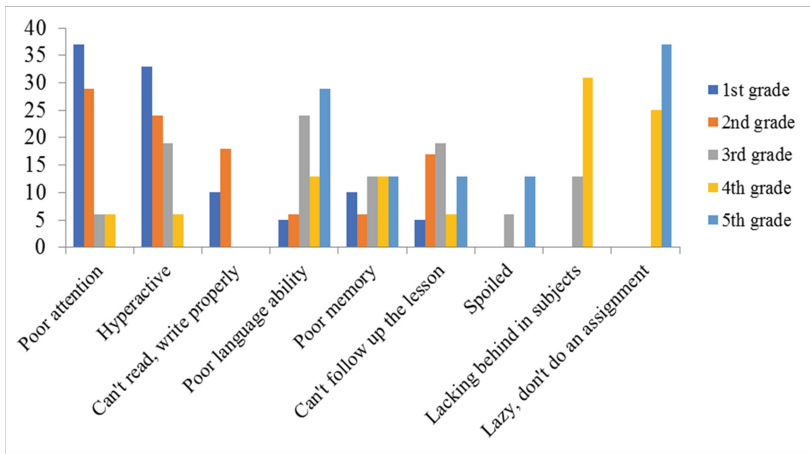
The second part of the Questionnaires is on Autism Spectrum Disorder, Attention Deficit Hyperactivity Disorder (ASD, ADHD) [1].

### 3 Results

In our survey, the examination of the reliability of the questionnaire shows that the Cronbach Alpha Coefficient was above 0.7 for all the questions, thus proving it to be

**Table 3.** Cronbach Alpha Coefficient for the Questionnaire

Questionnaire Sub Sections	Cronbach Alpha	Cronbach Alpha Based on Standardized Items	N of Items
Q1(teachers)	0,860	0,856	12
Q2 (friends)	0,881	0,878	12
Q3 (learning)	0,793	0,867	12
Q4(daily life)	0,814	0,831	12
Q5 (self-esteem)	0,800	0,792	12
Q6 (school)	0,832	0,837	12
Q7 (others)	0,873	0,873	12
SDQ	0,828	0,828	25
ASSQ	0,900	0,899	27
ADHD	0,940	0,941	18

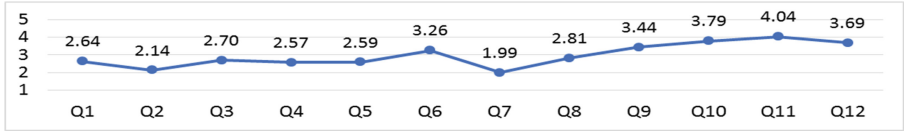


**Fig. 1.** Main problems of the student in need of special attention

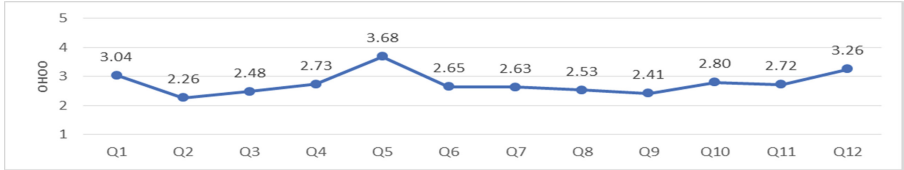
reliable. The questions for “the child’s attitude towards his/her teacher” showed the highest reliability coefficient- 0.9; followed by “the attitude towards friends”- 0.8, “the attitude towards learning”- 0.8; “the attitude towards daily life”- 0.8; “attitude to school” and “self-esteem”- 0.8; and “attitude towards others”- 0.9 (Table 3).

According to the “Students in Need of Special Attention” section, students in need of special attention are characterized by poor progress in socialization, cognitive development and learning (Fig. 1).

Most of the first-graders who are in need of special attention have a low concentration and hyperactivity, and the number of such students in upper grades appear to be lower.



**Fig. 2.** Attitudes of Students Towards Their Daily Lives



**Fig. 3.** Attitudes Towards Learning

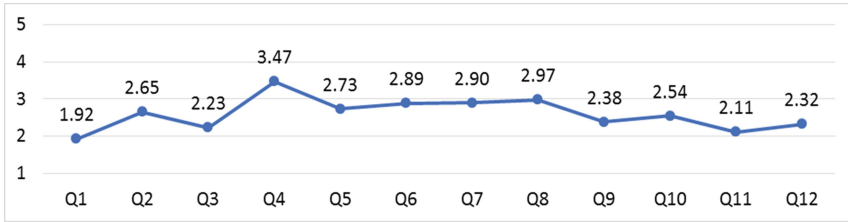
In terms of gender, the majority of students who receive special attention are male students. In particular, male students were found to be attracting teachers' attention due to their hyperactivity, attention deficit, and poor attendance. Teachers usually work with these students individually, discussing, counseling, and reviewing, although these methods have been shown to be ineffective: 16 percent responded as “improving, but temporary”; 33 percent - “getting a bit better” and the rest 51 percent - “no difference.”

Teachers' responses to the open questionnaire show that students who need special attention do not participate in class activities, sit still, and provoke or tease, or disturb others during extra-curricular activities. The care of the families of the 1st graders is better than that of the parents of the 4th and 5th graders. The parental care.

declines as the class level progresses. The survey found that students' attitudes towards daily life (2.97), attitudes towards their studies (2.77), and attitudes towards friends (2.60) were the most “worrying” for primary school teachers (Fig. 2)..

Note: Q1- Cannot understand unless clearly stated and explained, Q2- Suddenly leaves the classroom, Q3- Focuses on what he/she loves to do, Q4- Continuously does what he/she wants to do, even it is not allowed, Q5- Cannot calm down easily when he/she gets angry, Q6- Concentrates on the things he/she likes, Q7- Pays attention when he/she looks at the assignment material, Q8- Does the same thing over and over again, Q9- Does not try to do things he/she cannot do well, Q10- Makes the same mistake over and over again, Q11- Cannot understand unless the teacher teaches clearly, Q12- Gets confused if the plan is changed suddenly (Fig. 3).

Note: Q1- Talks to friends and disturbs others during the classes, Q-2 Cannot admit the failure when he/she is defeated in a game or competition, Q-3 Walks or moves about the classroom during the class, Q-4 Is not stable and active, does not participate in classroom activities, or is hyperactive, Q-5 Focuses on working alone rather than in a team, Q-6 Cannot wait his/her turn or stand in a queue, Q-7 Does not follow instructions, Q-8 Shows poor activity, lack of attention, stable for a short span, Q-9 Interrupts, disturbs, shouts, cries, shouts, and leaves the classroom without permission, Q-10 Is inactive, does not understand the lesson, and needs to work alone, Q-11 Low comprehension skills,



**Fig. 4.** Attitudes Towards Other Students/Attitudes Towards Friends/

**Table 4.** The Causes of The Student’s Misbehaviour

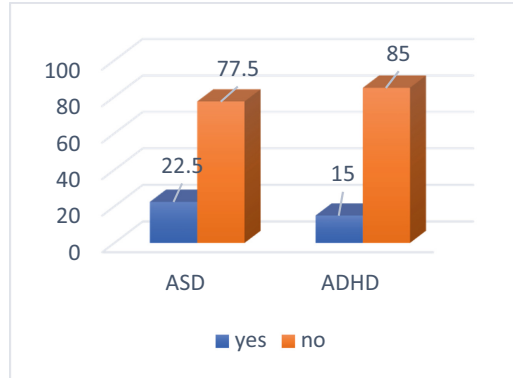
Cause	N	Minimum	Maximum	Mean	Std. Deviation
Communication	356	1.00	5.00	2.5464	.92074
Hyperactivity	356	1.00	5.00	2.9423	.80490
Adaptability	355	1.00	4.67	2.7501	.76396
Violation of rules	355	1.00	5.00	2.6662	1.01482
Impulsive behavior	356	1.00	4.83	2.5391	.96839

slow and poor participation are highlighted as problems by teachers, Q-12 Poor and inactive response to the class or subject matters (Fig. 4).

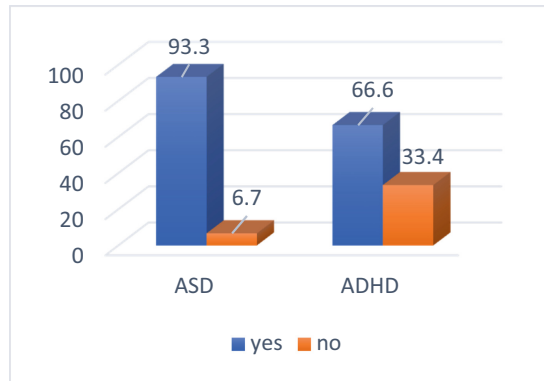
Note: Q1- Takes for an offense even the smallest things, Q-2 Argues, teases, bullies, and/or fights with others, Q-3 Is very sensitive towards students of other groups, Q-4 Moves to something else not finishing what he/she was doing or saying, Q-5 Cannot perceive others’ anger or disappointment, Q-6 Cannot wait for his/her turn, attacks others, Q-7 Interferes with friends, Q-8 Is often alone, does not communicate with others, Q-9 Shouts and throws things, Q-10 Uses abusive language and shows impulsive behavior, Q-11 Shows inappropriate behavior, while others are upset, Q-12 Destroys and interferes others’ games and toys. Table 4 gives a summary of some reasons for all above-mentioned concerns.

Teachers also stated other examples of the student hyperactivity as not focusing on certain things, not listening to the teacher until the end, not following the teacher’s instructions and rules such as “Wait” and “Attention”, or moving constantly. Symptoms of such as restlessness in movement may indicate a symptom of attention deficit. The age-related data analysis shows that as the child gets older, his/her attitude towards daily life and loneliness tends to increase, and interest in going to school tends to decrease. This could be related to the lack of special education services and appropriate learning environments. The analysis on the answers to the questionnaires on second part of questionnaire about Autism Spectrum Disorder (ASD) and Attention Deficit Hyperactivity Disorder (ADHD), Part 2, shows the following results. (Fig. 5 and 6).

The respondents where asked whether they had heard of “autism” before and the answers of the teachers of the regular schools were considered separately from those of the special schools.



**Fig. 5.** Teachers responds at regular schools



**Fig. 6.** Teachers responds at special schools

In the regular or public schools, the majority of teachers (77.5%) said that they had not heard about the Autism Spectrum Disorder (ASD) and the remaining part (22.5%) replied positively, while 93.3% of special school teachers said that they had heard about it. Similarly, eighty-five percent of regular school teachers responded that they had heard about the ADHD, and only 15 percent gave negative answers. On the other hand, 66.5 percent of special school teachers said they were familiar with the ADHD, and the remaining 33.4 percent said that they had not come across this notion.

This data suggest that regular school teachers have not heard much about Autism Spectrum Disorder (ASD) and Attention Deficit Hyperactivity Disorder (ADHD), thus, have little knowledge about them. As for the teachers of the special schools, it can be concluded that they have heard about these notions and have a certain level of knowledge about them. The reason why the teachers of the special schools knew about the above mentioned notions can be explained by the fact that they have been learning about ASD and ADHD in accordance with their job requirements and have been involved in certain training courses in recent years.

## 4 Discussion

Early detection of ASD and AD/HD in children is crucial since prompt monitoring of their development may allow them to fulfil their potential goals.

Many children with ASD and ADHD remain undiagnosed and are treated in a similar manner as other children at home and school. Consequently, this leads to serious maladjustments later in the affected people's lives, such as educational underachievement and loss of employment, which could have been avoided if they had an adequate and appropriate support. Providing support tailored to the developmental characteristics of children with ASD and ADHD may lead to better transitions in school entry and leaving as well as considering social issues. Identification of children with developmental disabilities will provide invaluable information to the clinicians, teachers, and parents regarding the behaviors of children that should be paid attention.

## 5 Conclusion

Our data analysis has shown that SDQ questionnaire methodology that has been tested internationally proves to be reliable and can be used in Mongolia as well.

The results of the survey has revealed that there are children in regular schools with characteristics of children with developmental disabilities who need special education support. According to teacher's response on open questionnaire as well as to checklist responses on students' daily lives, studies, and attitudes toward friends, teachers concern mainly about the inattention and hyperactivity in the classroom, the difficulties in adapting to working with others, impatience with rules and shifts, and the impulsive behavior. The results of the first part of the survey show that teachers are more focused on the subjects instruction and they lack the ability to work to meet children's special needs.

Consequently, we suggest to raise teachers' and parents' understanding about children with developmental disabilities in order to provide them with necessary support.

In the future, it is essential to conduct a nation-wide survey on developmental disabilities distribution in Mongolia in order to build a proper support system, including an assessment system and to incorporate reliable and valid tools for assessment.

We need scientifically accurate information regarding the prevalence of the ASD and ADHD in Mongolia through appropriate sampling surveys and direct clinical interviews of children and parents throughout the country. This information is essential for policy makers and administrators for formulation of national policies regarding education, health, and welfare in Mongolia.

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