

# Online Assessment for Children with Special Needs in Inclusive School during Covid-19 Pandemic in Indonesia

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Received: 10-08-2022, Revised: 16-08-2022, Accepted: 25-08-2022  
Published online: 15-09-2022

**Abstract:** Covid-19 pandemic force the educationalist in inclusive school to change the strategy in assessing children with special needs condition. Remotely children with special needs' assessment process are a rare experience to happen in Indonesia. Through a qualitative approach, this study aims to describe the assessment process carried out at the SPS Alam Atifa School in Bogor during the Covid-19 pandemic. Based on purposive sampling, an informant is a class teacher who is responsible for carrying out the assessment process for students with special needs in the inclusive schools and is willing to provide information. Data were collected through semi-structured interviews, documentation, and literature review. The data was analyzed through data reduction, data display, verification, and drawing conclusions by Miles & Huberman. Internal validity is carried out in the form of member check, perseverance of researchers, and using documentation tools. The results showed that the assessment process could be undertake remotely with video conference media and deliver the material to the parents. The online assessment had 8 stages which was commenced with discussion of assessor team, tools preparation, making tutorial for parents, simulation, implementation, result discussion, and arrange the IEP. The assessment used the performance-based assessment. Admittedly, assessment could be done remotely in online methods. However, further research is needed to explore the results' validity.

**Keywords:** Remote assessment; Children with special needs; Inclusive school, Covid-19 pandemic

## 1. Introduction

Lesson planning in inclusive school for children with special needs involves identification and assessment process. Assessment is the following activity after identification process, it is the most crucial process in arranging learning program for students with special needs,

especially in inclusive school. Assessment is conducted collaboratively for measuring students' ability, impairment, and needs [1][2]. Students' conditions are assessed through some methods such as observation, interviews, inventory, and testing [1][3]. The stakes holders who involved in the assessment process includes teachers, peers, parent, psychologist, medical staff, and specific government staff [1][2][4]. The Assessment results in some inclusive schools have not been followed up with curriculum modifications [1]. The data only describe students' ability in following learning activities. Just in case research founding by Roza et al (2020), at Payakumbuh Inclusive School in West Sumatra, the assessment process has been held collaboratively and it used to define whether students can participate in learning activities at the school or not. On the other hand, the learning material have not been modified based on the students' assessment report. Assessment is an important process, but in fact the staff in inclusive school are limited in numbers and abilities to conduct the assessment process [5].

Covid-19 outbreak urges a change in the global schooling system from in-person classes to distance education using online media [6], [7]. The Indonesia authority response it through issued Circular No. 4 of 2020 which is mandatory for all educational degree to execute "Learning from Home" to prevent the virus transmission. The distance learning practice were difficult to undertook because of some constraints in

personal, technical, logistical, and financial for both, school sides and family sides [8]–[11].

The remote learning system because of Covid-19 pandemic presents more challenges to assessing children with special needs in inclusive schools. Before the Covid-19 outbreak, assessment process are held through face to face process between the assessor team and the student [5], [12], [4]. According to the distance learning regulation, the assessment process also needs to be held remotely. This is the new experience for the school staff not only in Indonesia, but also for others countries in executing the remote assessment system [13]. In previous studies, online assessment system was carried out by develop a website for keeping and analyzing the assessment data which is more paperless and overcome the limited number of special education staff at school [5], [12], [14]. The previous locally studies has tackle problem in organizing the data and still conduct the assessment process by in-person model [5], [12], [14]. The big question is, how the assessment process will execute if the professional unable to meet directly with the students at school? Meanwhile, the learning process must be running throughout learning at home is mandatory.

In United States, school practician such as psychologists undertake tele-assessment for conducting psychoeducational assessments, but the the validity of assessment result still become a questions [13]. Tele-assessment practices in cognitive development have some challenges for examiners, especially when testing children with intellectual disability [15]. It might have any impact for minority community, cultural background, dan linguistic diversity and need more studies [16], [17]. Based on the previous studies, the online assessment need to learn more.

In Indonesia, SPS Alam Atifa Bogor is an inclusive school who have 7 Special education needs students (autism, deaf, speech delay, sensory processing disorder) but the school only have one teacher who provide special education services there. SPS Alam Atifa tailored the learning process with online system during the Covid-19 pandemic in Indonesia. The school uses an video conference application to conduct assessment process before arranging lesson plan for children with special needs there.

In 2022, the Indonesian government has allowed schools to reopen. Learning in schools will gradually be carried out face-to-face with the implementation of health protocols [18]. The phenomenon of the Covid-19 pandemic is an impetus for school practitioners to find ways to conduct assessments remotely. On the other hand, if a way or approach is found to do an online or remote assessment, it can help the affordability of the assessment. Especially if the school has only limited skilled staff or due to the lack of necessary pre-facilities. Therefore, assessment remotely for children with special needs in inclusive school need to be explore for future development.

Based on the SPS Alam Atifa Bekasi's experience, this paper will explore the assessment practice in SPS Alam Atifa Bogor in order to gain detail description and share the results to others practician. This study will describe the practice of assessment for children with special needs in Covid-19 outbreak which is held in an inclusive school.

## 2. Related Works/Literature Review

Assessment is a follow-up of identification activities, both of which are a series of inseparable and interrelated processes. Assessment of Children with Special Needs is a systematic or regular and comprehensive process or a whole in exploring further problems to find out what problems, barriers, advantages and individual needs [1], [2]. The five main objectives of educational assessment in exceptional education, according to McLoughlin and Lewis (1990), are screening, feasibility determination, program planning, monitoring student progress, and program evaluation [19].

Assessment in Covid-19 pandemic become prominent issue. Abrazado (2021) reported that making reliable assessments is something they (Philippines' teachers) have a hard time doing because teachers take on a lot of tasks for distance learning such as creating modules [20]. Teachers gain students' performance through parents' feedback and it difficult to made individualizes lesson program based on students' fully assessment. Although there has been research on the experiences of Special Educators in using

distance learning during the pandemic [20], there is almost no literature regarding what formative and summative assessments special education teachers in the Philippines use during their teaching practices.

Another report from Cortes et al (2021) reveals that teachers in Philippines tend to utilize the performance-based assessment and authentic assessment for both, online and offline assessment process. Online assessment tools that are often used by teachers are informal assessments. The teacher modifies the test tools and instructions according to the needs and possibilities to be applied through virtual interviews. In addition, the teacher also looks at the students' performance on the tasks given. The teacher gives an oral assessment based on the WH-Question related to the material given. Feedback on student performance and parental expressions is also part of online assessments conducted by teachers in the Philippines. The weakness of online assessments during the pandemic described by Cortes et al (2021) is the dependence of children on parents, students need, lack of physical guidance, and lack of learning resources. [21].

Due to school restricted for the health reason, the school staff must consider the assessment process based on the legal view, ethical, and safety [13]. Stifel et al (2020) explain that assessment could be operated in remotely and in-person. Stifel's research which is concern in United States emphasizes that school psychologists have a responsibility to assess children with special needs in schools, including during the pandemic. Remotely assessment can be done by (1) reviewing records and report writing should be undertake in the safe methods, with minimal contact with others. (2) selecting informants who really know the child's condition, (3) sending questionnaires via email to parents, teachers, and other parties who have information about the child's abilities, (4) held a safety interview or discussion using video conference application (5) the school psychologist analyze the data, and (6) direct observation through camera recording.

Since tele-assessment has a threat in the form of validity of the results, the direct assessment needs to be further discussed to be applied with knowledge regarding the spread of the virus and practices in other countries. Stifel et al (2020)

argue that assessment practices in the Covid-19 pandemic era need to implement strict health protocols.

### 3. Material & Methodology

Based on the research goal, this research use qualitative approach to gain the data. Through a qualitative approach, this study aims to describe the assessment process carried out at the SPS Alam Atifa School in Bogor during the Covid-19 pandemic. Based on purposive sampling, an informant is a teacher who is responsible for carrying out the assessment process for students with special needs in the inclusive schools and is willing to provide information. The identity of informant is described on table 1.

**Table 1.** Informant's basic information

Aspect	Information
Initial	IS
Age / gender	37/Male
Study background	Technic department and bachelor of education
Years of service	8 years
Responsibilities at school	Special education consultant, therapist for children with special needs, Assessment, Arranging IEP.

Data were collected through semi-structured interviews, documentation, and literature review. The data was analyzed through data reduction, data display, verification, and drawing conclusions by Miles & Huberman. Internal validity is carried out in the form of member check, perseverance of researchers, and using documentation tools.

### 4. Results and Discussion

#### 4.1. Result

Based on the interviews results, the assessment in SPS Alam Atifa Bogor was for knowing individual needs of both, special needs students and regular students, based in their current level in each development indicator (children development milestone). According to the assessment result, students with special needs would get therapy and treatment. The assessment

involved the children, parents, school environment and home environment. Home environment process invited the neighbor, even the local authority such as neighborhood association leader. The environment involvement aim was to inform that the special education needs students were exist in the home and school environment. The school staff informed about the children condition and the characteristic to educate the people around the children regarding children's maladaptive behavior (such as screaming, tantrum, self-injury, difficulties in following social norm, difficulties in communication, etc). It was hoped that the environment could understand the child's condition, not bully, and could even help for children's interventions.

### Parties involved in the assessment process

Since before the covid-19 pandemic, the assessment process involved doctor, psychologist, classroom teacher, special education teacher, therapist, and parents. Doctor and psychologist were from other institution. The special education teacher in this context is the professional with experience in teaching children with special needs. Therapist is a person whose experience in giving intervention for children with special needs. The classroom teacher had responsibility in creating curriculum enrichment and class project and learning media. Every parties had their own roles in assessment process which is described in table 2.

**Table 2.** Parties involved in the assessment process

Parties	Roles
Doctors & Psychologists	professionals to diagnose and provide learning advice in schools
Classroom Teacher	Help the special education teacher and therapist in conducting assessment process.
Special education teacher	Assessing and observing children in children's schools and homes as well as in the children's school and home environment, making

	individual school learning curricula.
Therapist	Conducting assessments of children's needs, making an IEP with teachers and advice from doctors and psychologists
Parents	conducting assessments with teachers at home, obtaining an IEP (home project) with teachers.

before and during the pandemic, assessment and observation were still in accordance with their respective roles, only differences in how to do it, namely by online (zoom meeting). The contribution of parents at SPS Alam Atifa Bogor during the pandemic was actually better and more intense in conducting assessments with teachers and school therapists, especially in distance learning and home learning projects.

### Preparation for Assessment

We worked with parents to prepare media to be used in the assessment. If the media was not at home, we sent the media from school to home. We made guides and tutorials both written and in the form of videos in using assessment media with the children.

The striking difference was in the duration of the assessment, especially in the observation process. Students with special needs had longer time. For instance, the regular students got one meeting with 30 minutes duration, meanwhile the special education needs students (got two meeting to obtained the detail data. Besides that, regular students were only accompanied by their parent, while the students with SEN, their parent would direct and became modelling for the students.

The assessment instruments used are academic assessment instruments, diagnostics and general basic competency instruments. The school staff developed the instruments according to the children developmental milestone to discover the needs of children and parents, distance learning and project-free learning and stimulation home learning programs.

## Implementation of Assessment

The assessment process was conducted remotely through video conference application such as Zoom Meeting and Google Meet. The assessment technique used were perform test and observation. The implementation process of assessment through eight steps which is figured out in the table 3.

**Table 3.** Steps of Assessment Implementation

Steps	Activites
1	Teachers, therapists and parents hold zoom meetings to discuss children's diagnoses, advice from doctors and psychologists.
2	Teachers and therapists made assessment and observation instruments, also prepared the media and tools for assessment.
3	The teacher made a tutorial on using media that will be sent to parents, if there were problems related to media and observation tools, the teacher would do a zoom meeting to solve the problem.
4	Parents prepared the media and equipment needed assisted by teachers and therapists.
5	Parents, students with special needs, teachers and therapists did zoom exercises a day or 2 days before the assessment as an introduction to the child.
6	Conduct remotely perform test and observations in accordance with the assessment instrument through video conference application.
7	The teacher discusses the results of the assessment through a zoom meeting with parents.
8	The teacher made Individual Educational Program (IEP) with the parent.

## Obstacles in Assessment Process

The obstacle encountered in the online assessment process is the internet network, which sometimes has signal delays. gesture, body

posture, response and reaction of children are not clearly visible because they do not see directly. To overcome the obstacles, the solution is for the family to record and the recordings will be discussed together, if there is something that needs to be re-recorded from a different side to see gestures, postures, etc., the family will do it again.

## Validity of assessment results

The teachers argued that the assessment results at SPS Alam Atifa Bogor were valid and could be used to make learning program for students with special needs because the involvement of students with special needs families was very active and supportive with the IEP that was made together. If there is a discrepancy between the results of the assessment with the condition of the student with special needs, the school will conduct an evaluation together with the parents. Then, the school will conduct a re-assessment for the inappropriate assessment results with learning program. Next, a new IEP is made regarding the unmet needs of the child.

## The Evaluation

Based on the school staff perception, some activities that need to be done to improve the quality of online assessments include (1) Active communication with parents, (2) Active involvement of parents in the assessment so that the child's needs are met, (3) Teachers and parents are active in making curriculum, projects for children together, (4) Teachers, therapists and parents are consistent in evaluating and monitoring children's development.

## 4.2. Discussion

The assessment process in SPS Alam Atifa Bogor has been planned well and involved some parties who has expertise in their field such as doctor, psychologist, special education teacher, classroom teacher and therapist. The special education needs children and their parent become the central of assessment. It is relevant with the assessment concept by McLoughlin and Lewis (1990).

The assessment process also extends to the child's living environment to create environmental acceptance of the child's condition. This practice could be model for another inclusive school. The school staff was not met challenging in parents acceptance. It showed that school could creating positive partnership with the family [22].

Based on the data that has been collected, it is known that the stages of conducting assessments go through the stages of preparation, implementation, and follow-up. The preparatory stage consists of team discussions, creating equipment, creating tutorials for parents, simulations. The implementation stage consists of implementation via google meet or zoom meeting. Implementation in the form of student performance tests and interviews of parents and people in the environment where students live. In the follow-up stage, it is to analyze the results of the assessment, prepare the IEP. The practice carried out at SPS Alam Atifa Bogor is in accordance with the idea offered by Stifel et al (2020) that assessment during a pandemic is indeed important to do but must be based on considerations for the safety factor of the spread of the virus. The rating scale and material delivered to parents, teacher, and other parties involved through online distribution method such as email to prevent physical touch[13].

SPS Alam Atifa Bogor use video conference such as Zoom Meeting and Google Meet as the online media. The zoom meeting used in every stages of assessment namely preparation, implementation, and the follow up session. All parties involved sharing their opinion and deliver the tutorial to parents via video conference application. It shows that the school uses a method that considers the safety of all parties by implementing physical distancing[13]. Stifel et al (2020) mentioned that using video conference application could be used for introductions, explaining the process, answering questions, interviews, and follow-up conversations to complete information from assessment scales and questionnaires.

In conducting this very challenging online assessment, teachers are faced with several limitations regarding online facilities and unclear information about children's responses because they did not see it directly. The unclear

information will affect teacher decision toward students' lesson planning, so that the validity of the assessment results is questioned. The findings of this study complement the research of Cortez et al (2021) which revealed that limitations in remote assessment include student dependence on parents, student needs that are less caught, and lack of physical guidance. Stifel et al (2020) recommend that the assessment process should be done in In-Person mode after the pandemic situation with the implementation of adequate health protocols such as room disinfection, minimizing physical touch, maintaining distance, using masks, and other provisions according to the local government.

The validity of the assessment results can be helped by making a clear description about the setting of observations and comparing the results of observations with other observers[13]. Thus, observations need to be made by several people. the results of the observations of some of these people can be validated by the triangulation method. The triangulation technique could be implemented in SPS Alam Atifa Bogor to obtain the validity of assessment result.

## 5. Conclusion

Online assessment for children with special needs in inclusive education are possible to conduct utilize video conference application and send the material to the parents. The online assessment had 8 stages which was commenced with discussion of assessor team, tools preparation, making tutorial for parents, simulation, implementation, result discussion, and arrange the IEP. The assessment used the performance-based assessment. Admittedly, assessment could be done remotely in online methods. However, further research is needed to explore the results' validity.

## Acknowledgement

Thanks to SPS Alam Atifa Bogor contribution as the research location and willing to share information regarding the assessment process during the Covid-19 pandemic.

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