
10-11-2022

Analysis of Hybrid Learning for Students with Learning Disabilities in Primary Schools Providing Inclusive Education

Nugraheni Rachmawati

Universitas Negeri Jakarta, nugrahenirachmawati_9919921003@mhs.unj.ac.id

Asep Supena

Universitas Negeri Jakarta, asupena@unj.ac.id

Yufiarti Yufiarti

Universitas Negeri Jakarta, yufiarti@unj.ac.id

Gusti Yarmi

Universitas Negeri Jakarta, gyarmi@unj.ac.id

Asep Rudi Casmana

Universitas Negeri Jakarta, aseprudi@unj.ac.id

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Recommended APA Citation

Rachmawati, N., Supena, A., Yufiarti, Y., Yarmi, G., & Casmana, A. R. (2022). Analysis of Hybrid Learning for Students with Learning Disabilities in Primary Schools Providing Inclusive Education. *The Qualitative Report*, 27(10), 2185-2201. <https://doi.org/10.46743/2160-3715/2022.5432>

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Abstract

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Keywords

hybrid learning, learning disabilities, inclusive schools, qualitative description, primary school

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Analysis of Hybrid Learning for Students with Learning Disabilities in Primary Schools Providing Inclusive Education

Nugraheni Rachmawati¹, Asep Supena², Yufiarti³, Gusti Yarmi⁴, and
Asep Rudi Casmana⁵

¹Department of Primary Education, School of Postgraduate Studies, State University of Jakarta, Indonesia

²Department of Special Need Education, Faculty of Education, State University of Jakarta, Indonesia

³Department of Psychology Education, Faculty of Psychological Education, State University of Jakarta, Indonesia

⁴Department of Elementary School Teacher Education, Faculty of Education, State University of Jakarta, Indonesia

⁵Department of Citizenship Education, Faculty of Social Sciences, State University of Jakarta, Indonesia

Many special-needs children, including students with learning disabilities, are enrolled in public schools. The current state of education is transitioning from online to face-to-face learning due to the improving situation after the COVID-19 pandemic. Hybrid learning is one of the alternative methods applied during the transition period. Therefore, this study aims to explore the experiences of teachers in implementing hybrid learning in students with disabilities in Indonesia using a qualitative description. Data was collected through interviews with one class teacher, two students with learning disabilities and their parents, and one school principal. Furthermore, observations were made on the learning process involving students with learning disabilities, with the data analysis technique referring to the theory of Sandelowski. The results indicated that there are four important aspects conducted by teachers supporting the success of hybrid learning for students with learning disabilities in inclusive classes; namely (1) the use of clear instructions, (2) reducing anxiety in online spaces, (3) special assistance, and (4) the use of adaptive learning media. This study has implications for the importance of teachers applying these four aspects to implement hybrid learning.

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Introduction

Learning difficulty is a disorder in which students have difficulty carrying out effective learning activities. Tait and Genders (2002) reported that the concept was recorded in Egyptian history around 1500 BC. Learning disabilities refer to defects of the mind and body resulting from brain damage (Tait & Genders, 2002). Meanwhile, Cortiella (2016) stated that these disabilities arise from neurological differences in brain structure and function, and affect the ability to receive, store, process, retrieve, or communicate information (Cortiella, 2016). The condition was reinforced by Franklin's opinion that children with "learning disabilities" lack academic achievement for behavioral, psychological, and emotional reasons (Franklin, 2018). Bradley et al. (2002) identified six problems that affected students' own; namely learning

achievement problems, perceptual-motor and general coordination problems, attention deficit and hyperactivity disorder, memory, cognitive and metacognitive problems, socio-emotional problems, and motivation problems (Bradley et al., 2002).

The prevalence of students with learning disabilities varies annually. Swanson (2000) mentioned that the number of students identified with disabilities grew rapidly from 1976 to 1977, representing half of the school-age children receiving special education; this condition triggered a debate on the category of learning disabilities and was considered an epidemic. Cortiella and Horowitz (2014) reported that from 2002 to 2011 the number of students served with learning disabilities decreased by 18% due to the expansion of early childhood interventions, improvements in reading instruction in general education classrooms, and a shift in the identification of concepts. During the 2010-2011 school year, nearly 2.4 million students aged six to 21 received special education under a particular learning disability category; this figure represents 36.7% of all school-age children with disabilities and approximately 5% of the total population (Aud et al., 2013). Cole and Cawthon (2015) reported that, according to the US Department of Education, in 2013 the number of students with Special Learning Disabilities (SpLD) in primary schools continued to increase. Given the prevalence of children who have learning difficulties, inclusive education needs to provide teachers with manifold knowledge on handling children with learning difficulties to meet their learning needs.

Children with learning disabilities need additional support to succeed in school (Kirk et al., 2014). Furthermore, Samuel Kirk stated that one of the causes of their difficulties was a delay in reading. Grigorenko et al. (2020) noted that not all children with learning disabilities have the same challenges. Some have difficulty learning to read, spell, and write, while others have problems with mathematics. Therefore, they have difficulty receiving information related to subject matter and assignments, while others have issues with all academic fields (Grigorenko et al., 2020).

Children with learning disabilities are expected to study in public schools in line with the Indonesian government's policy on inclusive education (Prasetyo et al., 2020). Maftuhatin et al. (2014) stated that one of the policies related to services for children with special needs is to develop both elementary and junior high schools into inclusive schools. The impact of this policy is to accept all students to school in any location, thereby allowing special needs children to continue their education in public schools (Maftuhatin et al., 2014). Sowell and Sugisaki (2020) stated that children with learning disabilities need special treatment, specifically those who study in inclusive schools (Sowell & Sugisaki, 2020). However, since the COVID-19 pandemic, many inclusive schools have closed to prevent the spread of the virus. Ezell reported that school closures were implemented as an alternative to avoiding the pandemic spread in several countries (Engzell, P., Frey, A., & Verhagen, M. D., 2021). Manalo and De Villa (2020) explained that the virus has resulted in drastic changes in the world of education, where there has been a shift from face-to-face classes to distance learning modalities. This is a challenge for teachers in preparing for modular and online distance learning (Manalo & De Villa, 2020). Alves and Romig (2020) reported that the learning process of children with learning disabilities requires several strategies adapted to the child's condition (Alves & Romig, 2021).

Currently, Indonesia is transitioning from the pandemic era to the normal phase of life. Based on a preliminary study conducted at the Bekasi City Elementary School, the problem encountered is that teachers need to prepare special strategies to teach inclusive classes where there are students with learning disabilities. According to principal data, there are nine students with disabilities (Komarudin et al., 2019; Sarkadi, Casmana, & Rahmawati, 2020). Meanwhile, all teachers at the school did not have a special education bachelor's background; hence, they needed to prepare special learning strategies during the transition period.

One of the learning strategies in the transition period is using hybrid learning. It combines traditional classroom learning and e-learning components to assist students. Cheung

et al mentioned that one common aspect of this strategy is the use of mixed learning in the classroom, in which a traditional instructor leads, while e-learning does not require instructors and students to be present simultaneously in a physical class (Cheung et al., 2015). According to Cavanaugh et al. (2012), hybrid learning is a pedagogical approach that collaborates face-to-face teaching with computer/mobile-mediated teaching. These teaching methods are complementary because of their ineffective time-saving function in school classrooms. Chen and Chiou concluded that hybrid learning prioritizes technological developments and can provide new experiences using hybrid spaces (Chen & Chiou, 2014). Meanwhile, Helms (2014) reported that the model could offer learning benefits by increasing grades, retention, communication, and teamwork (Helms, 2014).

Aristika et al. (2021) claimed that hybrid learning is an innovative model for developing advanced mathematical thinking and providing better opportunities for students to increase creativity, fun, challenge, and technology-based information.

Mettis and Våljataga (2021) strengthened this model's effectiveness with their findings, where hybrid learning can provide a consistent experience by utilizing technology and emphasizing a higher order thinking skill. Based on the background of the problem, this strategy is one of the alternative learning models in the transition period. Understanding the impact on inclusive elementary school students, specifically those with learning disabilities, is important. Therefore, this study aims to answer the question, "how is the hybrid learning strategy effective for students with disabilities in inclusive elementary schools?" It intends to help children with disabilities in inclusive primary schools, particularly those with learning problems. Students with special needs can be treated to absorb the learning material delivered by the teacher using this particular strategy. Based on the study objectives, the benefit occupied is providing an overview for elementary school teachers in the hybrid learning process when they have children with learning disabilities. Furthermore, it can contribute to studies focused on the inclusive education field. Globally, this study is very important because the problem of hybrid learning and learning difficulties often occur.

Learning Disability Definition

Samuel Kirk stated that learning disabilities are characterized by several conditions, including retardation, interference, or developmental delays in one or more of the processes of speech, language, reading, writing, or arithmetic, as well as other subjects caused by possible brain dysfunction or emotional disturbances (Kirk & Bateman, 1962). Herr and Bateman (2003) stressed that this theoretical definition should be "operationalized" to identify students with learning disabilities correctly. Furthermore, Herr and Bateman (2003) explained that to operationalize this definition, most countries developed formulas relying on the difference between intellectual ability (IQ) and achievement and performance. The magnitude of this difference was thought to indicate the extent of the underlying disability affecting the child's psychological processing (Herr & Bateman, 2003). Another definition is also presented by the National Center for Learning Disabilities, which stated that the most common disabilities target learning areas, written expression (dysgraphia), mathematics (dyscalculia), and reading (dyslexia) (National Center for Education Statistics, 2015). Learning disabilities arise from neurological differences in brain structure and function and affect the ability to receive, store, process, retrieve, or communicate information (Cortiella, 2016).

Children with "learning disabilities" do not perform well academically for behavioral, psychological, and emotional reasons (Kohli et al., 2018). This definition implies the importance of understanding learning disabilities, including that the disorder is most likely identified during schooling as a failure to achieve some academic activity. This understanding can be used as an initial diagnosis that the patient may have normal intelligence with learning

disabilities. It can also be used as a contribution to the justification for conducting this study because children with learning disabilities need special treatment, specifically in inclusive classes, which require many adjustments in communicating information related to learning. According to Barnard-Brak et al. (2010), teachers need to be aware of the experiences of students with disabilities to implement universally-designed strategies that will meet their requirements (Barnard-Brak et al., 2010).

Characteristics of Learning Disabilities

Kohli et al. (2018) mentioned that children with learning disabilities tend to perform less academically for behavioral, psychological, and social factors. Hallahan and Kaufman stated that some of the characteristics owned by such students are grouped into learning achievement problems, perceptual, perceptual-motor, and general coordination problems, attention deficit and hyperactivity disorder, memory, cognitive, and metacognitive problems, socio-emotional problems, and motivation problems (Hallahan & Kaufmann, 1977). Simmons et al. (2010) reported that many children with learning disabilities have severe difficulties with phonological and phonemic awareness. Kirk et al. divided the concept into developmental and academic learning disabilities, including dyslexia, dyscalculia, and dysgraphia (Kirk et al., 2014).

Reading difficulties are the most common characteristic of students with a learning disability, approximately 90% of all children identified are referred to special education because of reading problems (Bender & Shores, 2007). Other studies suggested that certain reading difficulties, called dyslexia, are persistent deficits, not just developmental delays in linguistics or basic reading skills (Ferrer et al., 2010). Furthermore, Williams and Lynch mentioned that dyslexia is a specific learning disability of neurobiological origin in children, characterized by difficulties with accurate and fluent word recognition and poor spelling and decoding skills (Williams & Lynch, 2010). The International Dyslexia Association (2002) stated that the difficulties of dyslexic children result from deficits in the phonological component of language (Franklin, 2018). A major paradigm shift is needed to create effective classroom instruction to meet the needs of students with learning disabilities (Sarkadi, Casmana, Cahyana, & Paristiowati, 2020; Zid et al., 2020). Therefore, teachers need to create strategies to support the learning process of children with learning disabilities.

Definition of Hybrid Learning

Hybrid learning has many definitions since it is constantly evolving compared to traditional settings and e-learning. Martyn mentioned that a new idea of a “hybrid learning space” has been developed. A similar term for this concept is mixed learning which is used interchangeably in this current study (Martyn, 2003). Thorne described it as a learning space where course content is delivered using a combination of conventional seminars and electronic communication tools (Thorne, 2003). This hybrid learning program combines e-learning and traditional classroom learning (Cheung et al., 2015). Furthermore, Cavanaugh et al. consider hybrid learning a pedagogical approach that combines face-to-face and computer/mobile mediated instruction, built to complement and reduce inefficient time while students are in the classroom (Cavanaugh et al., 2012). Trentin argued that complementary and parallel physical and virtual arrangements should provide interactions between learners, peers, and instructors (Trentin, 2015). However, some studies suggested that in the hybrid class, variation is needed to create multiple student options in terms of time and place of learning (Linke et al., 2017). From these definitions, the design of the program uses the mediation of electronic

communication tools in e-learning and traditional classes to assist students with learning disabilities.

Why Use Hybrid Learning

Hybrid learning is an innovative model that utilizes information and communication technology (Aristika et al., 2021). This model uses various technologies including TV, computer media, multimedia presentations, iPhone, video conferencing, and weblogs (Cheung et al., 2015). Li et al. (2021) mentioned the implementation in the classroom by combining synchronous learning, such as Zoom, Cisco Webex, Google Class, and Panopto, as well as asynchronous sessions that are learning modules. The model designs meaningful location activities using mobile technology to provide a content-rich learning experience (Mettis & Våljataga, 2021). In addition, hybrid learning can reduce the inefficiency of the time students spend in class (Bülow, 2022). It provides facilities for students to direct their learning process with available learning methods and materials that best suit their characteristics (Sanchez-Muñoz et al., 2020). Furthermore, it can provide strong pedagogical actions in current digital era to meet students' diverse needs and interests and have the opportunity to be proactive and obtain hands-on experiences. This is because the role of technology helps students clarify and make more concrete things that are still abstract (Wardani et al., 2018). For example, when it is difficult to describe the material on the characteristics of animals, the teacher can directly show the video in the hybrid class. It is certainly very interesting when hybrid learning is used as an alternative to inclusive classes in elementary schools.

Implementation of Hybrid Learning for Children with Learning Disabilities

Teachers are expected to create and manage hybrid learning that is inherently more complex than traditional or e-learning programs (Chen & Chiou, 2014). The implementation of hybrid learning in inclusive classes requires the active role of all elements, specifically teachers and parents. This was in anticipation of Helm's concern that implementing hybrid learning requires stable network facilities because students who cannot access online lessons from home will be disadvantaged and perform worse than those with internet access (Helms, 2014). This requires a new set of pedagogical skills and development capabilities, more technically savvy support staff, and a unique and supportive learning environment for the hybrid class (Hwang, 2018). Therefore, schools and parents have the same responsibility to educate children with special needs to face the challenges of adulthood (Jumareng et al., 2022).

Implementing hybrid learning in the classroom should maximize the provision of clear instructions to students, especially for children with a learning disability, one of which is by utilizing the media. Many types of media are offered to deliver learning materials in Education 4.0, such as dynamic technology and learning experiences (Hartono et al., 2018). However, it should be noted that during implementation activities, the initial instruction of the lesson supports the hybrid learning process for a more effective hybrid class (Sanchez-Muñoz et al., 2020). This capacity is best achieved when hybrid learning implements special instructions for children with learning disabilities, specifically in media use.

Author's Study Note

Several studies had great interest in hybrid learning and inclusive basic education. This concept is one of the most important resets because it transitions between learning during a pandemic and normal learning. All authors came from Indonesia and are teachers and academics in the field of education. The first is a doctoral student in basic education at the State

University of Jakarta and an elementary school teacher with 16 years of teaching experience during which students with special needs and learning disabilities in inclusive primary schools were often met. Therefore, this study topic is very relevant to the experience and expertise. The second author is an expert in special education with a bachelor's degree in special education and a postgraduate in psychology, which focuses on dealing with children with special needs. Furthermore, the second author is an academic who teaches at the Jakarta State University Special Education study program, while the third and fourth are promoters and co-promoters of the first. The third author has expertise in the field of psychology and serves as the Dean of the Faculty of Psychology, State University of Jakarta. The fourth author is an academic in basic education focused on elementary school students learning problems. Currently, this author serves as Head of the Department of Basic Education at the Jakarta State University Undergraduate Program. The fifth author is an academic at the State University of Jakarta who specializes in citizenship and has several general and special education publications in primary schools.

Method

Study Design

This study uses qualitative description (Sandelowski, 2000) as a method to analyze the hybrid learning strategy. The study question is on the strategy's effectiveness for students with learning disabilities in inclusive elementary schools.

This study has been approved by the ethics committee of the Institute for Research and Community Service, State University of Jakarta, including all approved instruments. Regarding the respondents involving children under 17 years of age, parental consent was asked.

The hybrid model divides students into face-to-face and online learning, which carries out direct learning from school and home. The two groups will meet in a hybrid classroom with the help of Zoom and teachers. The explanation of the hybrid learning model in elementary school can be seen in Figure 1.

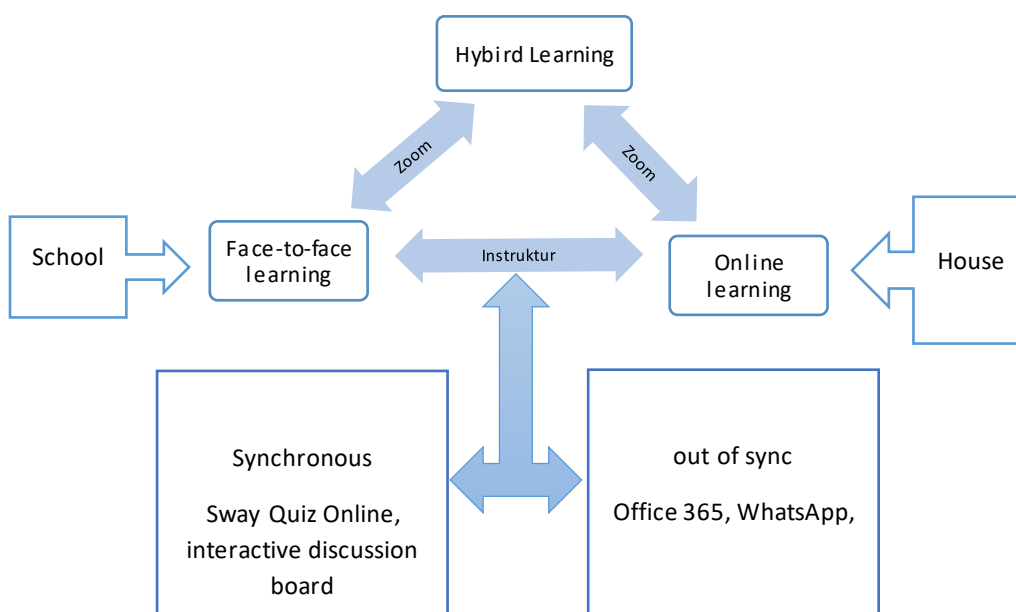


Figure 1

Hybrid learning model in elementary school

Participants

The selection of participants used a purposive sampling technique (a non-random method). This study ensures the citation of illustrations by determining a unique identity that fits the objectives for learning delays. This was conducted at SD Negeri Bekasi City, Indonesia, involving six respondents consisting of two parents, two 6th grade students, one teacher, and one principal. The sampling participants were teachers with at least five years of experience teaching children with learning disabilities, parents with special needs, and principals who organized inclusive schools. More detailed information about the participants can be seen in the table below.

Table 1
Characteristics of Study Participants

No	Participants	Age	Sex	Teaching experience	Amount
1	Teacher	35-40 years old	female	15-20 years of experience	1
2	Parent	30-35 years old	female	-	2
3	Student	8-10 years	female	-	2
4	Principal	45-50 years	female	30-35 years of experience	1
Number of Participants					6

Data Collection Technique

In-depth interviews and classroom observations are used to obtain the data in this study. Interviews were conducted directly for approximately 30 minutes on each respondent. The questions are on the effectiveness of hybrid learning in inclusive classes. Interviews with students and parents were on their experiences while attending a hybrid class. Meanwhile, the interview for the principal is on the principal's policy in supporting hybrid learning in inclusive schools. This study focuses on how the implementation of the hybrid learning model is carried out in elementary schools. Teachers divided students into online and face-to-face learning during the observation process. The online learning was conducted from their respective homes, while the face-to-face was held in the class. Teachers will inform students through WhatsApp and a zoom link to collaborate in the hybrid class. After the two groups collaborate on the Zoom application, materials are provided through the Office 365 application Sway. During the learning process, students are asked to solve problems according to the specified theme in small groups and obtain information from internet sources and several applications. The interview aims to analyze the learning of children with disabilities during the hybrid class.

Data Analysis Technique

We analysed the data using content analysis as suggested by Sandelowski (Sandelowski, 2000). This study uses the NVIVO Version 11 software to assist the process of data analysis. The eleven steps to conducting content analysis are: (1) formulating study problems in inclusive primary schools on children with special needs, (2) conducting library studies on hybrid learning from various countries, (3) determining the unit of observation and unit of analysis at the study location; namely inclusive elementary school in Bekasi City, (4) determining the sample, (5) determining the variables, (6) creating categorization and coding

guidelines which are divided into four themes (the use of clear instructions, reducing anxiety in online spaces, special assistance, the use of adaptive learning media), (7) collecting relevant data, (8) performing data coding, 9) processing data, (10) presenting data and providing interpretation, and (11) compiling a report on study results.

The main topic is focused on the strategy of hybrid learning for elementary school students after the pandemic period. It is quite challenging as there are students with disabilities in the classroom, and this coding was generated after the analysis of the data from the original part. From the general topic, this has been developed into clear instruction, analysis in the online space, special assistance, and adaptive media.

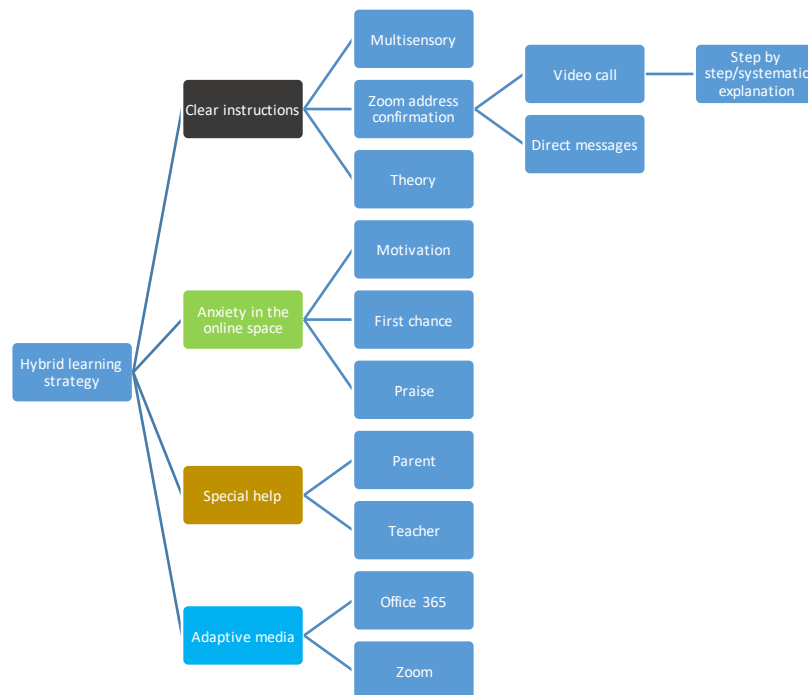


Figure 2

The codes that were generated from the data

Results

Clear Instructions

Clear instruction has been considered to be important in applying hybrid learning. Clear instructions mean that the teacher give some step-by-step activities in which students should follow before starting the learning in the class. In addition, teachers also provide a detailed guide before starting the hybrid learning. If the students do not have very clear instructions, especially those learning at home, they cannot follow or engage the learning activities designed by the teachers. Here are the results of teacher experience when giving a clear instruction:

During the learning process, I gave directions before starting the Hybrid Class through a video call on WhatsApp specifically for children with special needs. For regular children, the instructions were through short messages in the WhatsApp group (Interview, Inclusive School Teacher).

One activity that supports the hybrid learning process is instruction at the beginning of the lesson to increase the effectiveness of hybrid class. Education plays an important role in

hybrid learning activities because teachers are expected to communicate the Zoom link used. The results of interviews with their class teachers explained that an initial briefing was carried out in which regular children used electronic messages. For children with special needs, the teacher made video calls through WhatsApp. This provides special treatment in inclusive schools where special educators are equipped with individual education programs to cope with the situation.

The teacher calls before the lesson starts to communicate the zoom address, but because I am often confused, my mother helps me when I study online at home (Interview of students with special needs 1).

The interviews show that when students participate in online hybrid learning, they cannot accept the instructions given by the teacher; therefore, they are still confused and will ask their parents for help while studying in hybrid class. Students with special needs should directly interact with trusted people to gain knowledge.

I always ask the teacher to explain because I understand better when the teacher speaks slowly and repeatedly, specifically with my dyslexia. This is because certain things look a little bit similar. For example, I often typed the zoom address upside down between the letters d and b (Interview of students with special needs 2).

The interview results showed dyslexic children require gradual instruction when participating in hybrid learning. The teacher should understand that children with dyslexia think language is abstract and multi-interpretable because they have trouble memorizing visual sequences. The instructions are expected to be multisensory, requiring visualization to make learning more effective and efficient.

Anxiety in the Online Space

Students with learning disabilities are prone to interpersonal problems. Poor social skills often lead to rejection, low social status, unpleasant interactions with teachers, difficulty making friends, and loneliness, which are experienced regardless of class placement. Therefore, it is natural that children with learning disabilities experience anxiety in the online space, as stated below.

The thing that worries me when studying online is when I cannot answer the teacher's questions correctly because I think my friends will bully me (Interview of students with special needs 1).

I do not like it when the teacher tells me to write on the whiteboard during class, and it scares me. My dyslexia prevents me from writing publicly because this is not my place. My friends will surely mock me because I have low confidence (Interview of students with special needs 2).

The results of the interview stated that when participating in online learning, they tend to have a sense of worry following the failure to answer the questions asked by the teacher. Furthermore, students may worry that they will be treated badly and laughed at. In the same cases, they may develop hatred for school when forced. This was expressed by a dyslexic child

who avoided writing directly or displaying writing while participating in online learning due to low self-confidence.

During the hybrid class, I always accompany my child and give him strength, hence, he is not afraid during the learning process. I always motivate him to ask several questions when he does not understand (Interview with parents of students 1).

Parents with children needing special attention have to be prepared for all situations and conditions. Furthermore, they should supervise and provide boundaries for children to feel comfortable. They are expected to be the main shield in every child's movement by providing an understanding of what can and cannot be achieved. Interviews during hybrid class explained that parental assistance is a strength for children to boost their confidence.

Special Assistance

Handling children with a learning disability is certainly different from handling regular children in inclusive schools, therefore special assistance is needed. The adjustment is intended to provide appropriate and acceptable treatment and achieve learning objectives. To overcome these problems, teachers need special assistants when students conduct online learning in their respective homes. This online learning mentoring process can be conducted by collaborating to implement hybrid class.

I render the assistance for children with disabilities by adjusting their development and needs, and I always communicate with parents to achieve complete learning, specifically in this hybrid class which requires special assistance while studying at home (Interview, teacher inclusive school 1).

Since this hybrid learning combines face-to-face classes with online learning, high concentration is required in the implementation. The teacher should provide services between the two groups by paying attention to the needs of each student. Meanwhile, there is no exception for special attention. The results of interviews with teachers explained that when hybrid learning was held, special assistance was provided in stages. This cannot be apart from the parents' role because they know children's condition when studying at home.

During the hybrid class, I have to make sure my child can communicate with their friends to increase the level of confidence, and I am happy when the teacher confirms the learning activities in class at the beginning of the lesson. Therefore, I can prepare time to accompany my child with a learning disability (Interview with parents 2).

The existence of communication from the teacher before conducting the learning activities is important. An interview with the parents of disabled students explained that communication at the beginning of learning allows them to manage time in accompanying their children while attending hybrid classes. Therefore, special assistance should be rendered by the teacher and parents. The role of parents in the learning process is very important as a companion teacher at home. They can repeat the information conveyed by the teacher to their students to refocus on what has already been taught.

Use of Learning Media

The experience of learning disabilities in children can affect their processing or thinking, resulting in difficulties with memory and organizing ideas or thoughts in a meaningful way. Facing the uniqueness of individual students is certainly a challenge in providing an essentially social learning process. This understanding is very important in creating a conducive environment. Learning management in the hybrid classroom requires media to understand the material. The teacher is expected to work with the face-to-face and online learning groups in this class, which provides an opportunity to use various media to stimulate learning achievement.

Learning in the hybrid class takes the theme of an animal lover, following the third grade elementary school curriculum, which invites children to care about animals. The application used is Office 365, a share containing videos on how to take care of animals. A student activity sheet will also be used when they conduct activities directly after learning. After delivering the material through the sway application, assignments were given to observe and practice how to care for pets in the surrounding environment. Students were asked to report the results of their activities at the next meeting.

Besides introducing the application to all students, I use adaptive media in the hybrid class by utilizing concrete objects around. This is a form of motivation, especially for students who have to learn about disability to understand the material (Interview with Teacher).

When presenting the results of their learning activities to students with learning disabilities, I put it at the beginning to increase their confidence in displaying the results of their assignments through share screen media. This activity is needed to help them to understand the material on loving living things (Interview with Teacher).

The teacher introduces applications and develops adaptive media adapted to the needs of students with disabilities. Initially, they were shown videos on how to care for animals to create awareness before hands-on practice. Another interview stated that students with learning disabilities were given the first opportunity to present the results of their activities through the share screen available on the Zoom application. This was quite successful in making children understand the material.

I enjoy watching videos taking care of animals, and it helps me to give an overview, specifically with my dyslexia in reporting activities directly (Interview of students with special needs 1).

My confidence increased when the teacher gave me the first opportunity to tell the results of my activities in caring for pets because there was no comparison and made me brave (Interview of students with special needs 2).

Hybrid classes allow teachers to display several learning videos through the Zoom application. This is an effort to provide adaptive media that does not have space and time constraints. The interviews with children with special needs are positive since the video helps them grasp the activities that should be completed. Therefore, they become confident in sharing the results of their learning experiences through sharing screen media from home.

Discussion

This discussion section provides information on how the findings correlate with the previous study. The results showed that when implementing hybrid learning, specifically in inclusive schools, instructors should pay attention to four important aspects. In the aspect of giving instructions, it has an important role considering children with learning disabilities have difficulty remembering visual sequences. Instructions are multisensory, which requires visualization to make learning more effective and efficient (Franklin, 2018). This follows a study in which students with special needs in their inclusive school in Bekasi also had difficulty remembering visual sequences. The proactive development of online instructional materials should consider the needs of all students, including determining how special education and specially-designed instruction can be provided online (Love & Ewoldt, 2021). This is in line with the conditions in the Bekasi City Inclusion Elementary School hybrid class, which requires systematic instruction for children with learning disabilities. Previous studies explained that instructions for children with a learning disability are part of the teacher's attention to prevent them from having a secondary role in the learning process and becoming "users" of tools and learning environments (Petretto et al., 2021). These are the conditions of students with special needs in the hybrid class of the Bekasi Inclusion Elementary School, where instructions are perceived as a form of teacher attention.

The second aspect is that teachers should reduce anxiety in the online space to guarantee their comfort in learning (Casmata et al., 2022). Some students with a learning disability may feel anxiety due to how they interpret social situations relative to their experiences and their inability to understand other people's non-verbal effective expressions (Bradley et al., 2002). Therefore, teachers need to implement hybrid learning in inclusive classes to reduce anxiety. As experienced by dyslexic children in inclusive elementary school in Bekasi City, it is necessary to strengthen themselves when participating in the hybrid class, such as giving praise and motivation. This can increase their level of confidence, thereby reducing anxiety during learning. According to Alves and Romig (2021), when students participate in learning activities, praise can increase their confidence and independence in learning to feel safe.

The third important aspect is special assistance from teachers or parents in learning activities. The cooperation of the two is a supporting factor in achieving learning goals. Furthermore, the need for communication from the teacher before carrying out learning activities is important, specifically for parents who have children with learning disabilities. Previous studies showed that treating children with a learning disability requires effective visual, verbal, and written learning. Teachers should offer learning based on their qualities to provide unique support (Ahmad, M., & Khasawneh, 2021). Special assistance for children with special needs is required because learning, interaction, and communication styles should be adapted to the characteristics of children with special needs (Prasetyo et al., 2020). This is based on the experiences of students in Bekasi Elementary School who benefit from extra attention from parents and teachers.

The fourth aspect of the hybrid class is adaptive learning media designed to suit their needs, providing opportunities for children with disabilities to participate in learning programs effectively. In the hybrid class, the teacher tries to offer technology-based adaptive media packaged by adjusting the needs of children with learning disabilities. Adaptive media delivered through a Zoom meeting can provide a learning experience for children with special needs. This is in line with previous study, which explained that the existence of media can represent the limitations of teachers in pronouncing certain words or sentences (Cortiella, 2016). Furthermore, other studies stated that pair programming through Zoom workspaces can develop innovative pedagogies to guide students with learning disabilities (Xu et al., 2021). Saleem et al. (2021) claimed that the right media could assist children with special needs in

receiving the subject matter (Saleem et al., 2021). Other studies also explained that adaptive media plays an important role in the learning process for children with special needs (Podsiadlik, 2021). This condition is under the situation of elementary school students in Bekasi, where they feel helped by the media provided by the teacher. This is because many pictures and videos make it easier to understand the learning material. In addition, the share screen application allows them to share their learning experiences at home.

The results stated that four important aspects should be considered in implementing hybrid learning, specifically in inclusive schools for students with learning disabilities. The four aspects include (1) the use of clear instructions, (2) reducing anxiety in online spaces, (3) special assistance, and (4) the use of adaptive learning media. Step-by-step instructions are needed to increase the level of effectiveness in students with learning disabilities. In addition, they need reinforcement to reduce anxiety in the online space. Hybrid classes require special assistance from parents or teachers because collaborating with face-to-face and online learning groups requires high concentration (Li et al., 2021). This can be overcome by using adaptive learning media that can replace the role of the teacher in the hybrid classroom. However, the use of hybrid learning in inclusive primary schools has issues. The network becomes the main obstacle when face-to-face and online learning collaborate on the Zoom application, which will be quite difficult when applied in remote areas. In addition, teachers should have adequate technology skills in using applications in hybrid classrooms. Apart from these problems, the implementation was only tested for two months during the transition period. The interview process was slightly hampered due to the busyness of parents. This study aims to publish learning models for children with learning disabilities in inclusive elementary school during the transition period. Suggestions to be improved are the need to increase inclusiveness in the hybrid class.

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Author Note

The first author is a Doctoral student in Basic Education at the State University of Jakarta. The first author is also an elementary school teacher with 16 years of teaching experience. During those 16 years, the first author often met students with special needs who had a learning disability in inclusive primary schools, so the topic of this research is very relevant to the experience and expertise of the first author. Please direct correspondence to nugrahenirachmawati_9919921003@mhs.unj.ac.id

The second author is an expert in Special Education. The educational background of the second author is a bachelor of special education and a postgraduate in Psychology which focuses on dealing with children with special needs. Currently, the second author is an academic who teaches at the Jakarta State University Special Education study program.

The third and fourth authors are promoters and co-promoters of the first authors at the Postgraduate School of the Basic Education Doctoral Program at the State University of Jakarta.

The third author has expertise in the field of Psychology and currently serves as the Dean of the Faculty of Psychology, State University of Jakarta. The third author is also a Professor of Psychology so the third author has relevance to the research topic.

The fourth author is a researcher as well as an academic in the field of basic education. The focus of his research is the learning problems of elementary school students. Currently, the fourth author serves as Head of the Department of Basic Education at the Jakarta State University Undergraduate Program.

The fifth author is an academic at the State University of Jakarta who has a focus on expertise in the field of citizenship. The fifth author has several publications related to the fields of general education and special education including in primary schools.

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Article Citation

Rachmawati, N., Supena, A., Yufiarti, Yarmi, G., & Casmana, A. R. (2022). Analysis of hybrid learning for students with learning disabilities in primary schools providing inclusive education. *The Qualitative Report*, 27(10), 2185-2201. <https://doi.org/10.46743/2160-3715/2022.5432>
