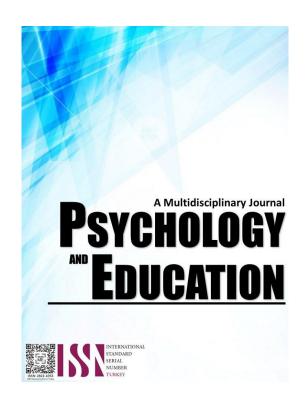
# EXPLORING TEACHERS' EXPERIENCES ON THE USE OF SELF-LEARNING MATERIALS FOR CHILDREN WITH AUTISM



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# **Exploring Teachers' Experiences on the Use of Self-Learning Materials for Children with Autism**

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#### **Abstract**

School closures due to challenging situations such as inclement weather, unexpected safety issues, natural calamities, or pandemics can force teachers to explore alternative delivery modes to provide continuous education to children with autism. The purpose of this study was to explore teachers' experiences on the use of self-learning materials for children with autism at Bagong Pag-Asa Elementary School. The theory that guided this study was Desi and Ryan's (2000) Self-Determination Theory. Data from online interviews were thematically analyzed, revealing five (5) key themes: creating an equitable learning environment, performance monitoring to improve learning, personalizing education, empowering teachers, and building confidence. The research highlighted challenges such as verifying the authenticity of children's work and the need for parental involvement to ensure the effectiveness of self-learning materials. Teachers adapted communication methods to support parents and tailored materials to cater to the diverse needs of children with autism. However, the standard content provided by the Division Office required further differentiation. The study found that using self-learning materials would only have been effective with parental support. Assessment tools and progress monitoring were crucial in improving educational outcomes. Personalized learning, which includes modifying instruction and using technology, was recommended to cater to the unique strengths and needs of children with autism, thereby enhancing their learning experiences. Empowering teachers and nurturing confidence in children with autism was vital in providing a better educational experience. The study underscored the importance of a supportive network and adaptive teaching strategies in continuously educating children with autism during school closures.

**Keywords:** self-learning materials, children with autism, teachers' experiences, and parental involvement

## Introduction

School administrators constantly face a tough decision to shut down schools and adapt to alternative learning modalities when experiencing inclement weather, unexpected safety issues, natural calamities, or pandemics. Self-learning materials have been used for decades to provide flexible and individualized learning opportunities for students with different needs, preferences, and circumstances (Regoniel, 2021). The self-learning materials approach is an evidence-based approach that effectively teaches children with autism. According to Martin et al. (2021), self-learning materials approaches to intervention are a promising strategy for helping teachers receive training on evidence-based interventions and support with implementation. Throughout the public Special Education (SPED) program, self-learning materials modality has garnered greater attention and implementation as an innovative strategy to adapt to the different learning requirements, particularly for those with autism (Pelegrino et al., 2024; Mendoza, 2022).

In the United States, several learning programs are designed to support children with autism. According to Martin et al. (2021), the Modular Approach to Autism Programs in Schools (MAAPS) framework aims to improve outcomes for children with autism in school settings. It provides a structured approach to addressing the core and associated features of autism. Initial evaluation results indicate that MAAPS effectively addresses these features in educational settings. By thinking small (focusing on modules), teachers can achieve significant outcomes (improved children's outcomes). By providing a practical and modular approach, MAAPS can enhance the adoption and implementation of evidence-based practices in schools. (Martin et. al, 2020). However, while initial results show promise, long-term outcomes and generalization of skills beyond the intervention setting need further exploration.

Another learning program is the Modular Approach to Therapy for Children (MATCH), also known as MATCH-ADTC, which aims to provide effective treatment that addresses common childhood behavioral health concerns such as children dealing with anxiety, depression, conduct disorder, and trauma. The program employs a cognitive- behavioral approach and incorporates psychoeducation. MATCH includes various modules such as problem-solving, getting acquainted, trauma, and depression. Researchers have found positive outcomes in areas such as expressive language, receptive language, and social interaction. However, some evidence-based interventions may have features that make them challenging to implement consistently in a school setting (Harmon et al., 2021).

While the Modular Approach to Autism Programs in Schools (MAAPS) and the Modular Approach to Therapy for Children (MATCH) are both valuable frameworks, The current status of implementing these self-learning materials for children with autism at schools remains untested in practice. Schools must allocate resources effectively to ensure the successful implementation of these programs since it requires careful planning, professional development, and ongoing support for teachers. This gap in knowledge hinders our ability to make informed decisions and develop effective strategies to support the educational needs of children with autism in the context of self-learning materials. It is crucial to bridge this gap and gain a deeper understanding of the specific effects of self-learning materials on teaching children with autism.

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# **Research Questions**

This transcendental phenomenological study aimed to explore teachers' experiences on the use of self-learning materials for children with autism. This study investigated the strategies, challenges, and outcomes of using these materials for teachers. At this research stage, self-learning materials for children with autism during school closures and the implementation of alternative delivery modes were generally defined as the selection, implementation, and reflection of learning resources designed to facilitate self-directed learning for children with autism. Specifically, this study sought to answer the following questions:

- 1. What were the teachers' experiences in using self-learning materials for children with autism?
- 2. How did teachers assess the progress and outcomes of children with autism who engaged in self-learning materials?
- 3. How did teachers adapt their teaching practices to use self-learning materials?

## Methodology

## **Research Design**

Phenomenology, as emphasized by Creswell (2013), is a qualitative research design that explores the essence of human experience. It recognizes that individuals bring unique perspectives to any phenomenon based on their experience. This philosophical underpinning aims to capture various perspectives of teachers of children with autism who employed self-learning materials during school closure and the implementation of alternative delivery modes.

The research utilized a transcendental phenomenological approach, as proposed by Moustakas in 1994. This approach aimed to capture the wholeness of the lived experience rather than focusing on individual objects or parts. This approach emphasizes the teachers' narratives about using self-learning materials with children with autism without the possible influence of the researcher's preconceived ideas or biases to capture the perspectives and purposes of those experiencing the phenomenon.

The study employed a phenomenological design approach, as Moustakas (1994) outlined, to explore teachers' lived experiences on the use of self-learning materials for children with autism. This method is preferred for its ability to capture an in-depth and complex essence of subjective human experiences. Focusing on the participants' narratives aimed to understand the phenomena from their unique perspectives, thereby adding depth and context to our understanding of using self-learning materials during school closures and implementing alternative delivery modes.

In this study, the researcher used a qualitative approach and analyzed data. The researcher used a transcendental phenomenology methodology that consisted of semi-structured interviews and open-ended questions. By employing semi-structured interviews and document analysis for data collection purposes, followed by thematic analysis during the data interpretation stages, this research explored teachers' experiences, how teachers assess the progress and outcomes of children with autism, and how they adapt their teaching practices.

Moustakas' approach includes the techniques of epoché, phenomenological reduction, imaginative variation, and the synthesis of meanings and essences. These processes collectively facilitate an in-depth exploration to capture the essence of lived experiences.

## **Participants**

In this qualitative research study, the sample or the participants were five (5) teachers of children with autism from the Bagong Pag-Asa Elementary School who used self-learning materials during the school closures and implementation of alternative delivery modes. The sample adhered to a reasonable sample size for phenomenological research as defined by Creswell (2013). The specific objective of the study revolved around exploring the lived experiences of teachers with children with autism. The selection of teachers of children with autism as the sample for this qualitative study ensured that the research would capture the participants' lived experiences. The data collected from this sample would be instrumental in addressing the research questions and providing valuable information for children with autism, parents, teachers, school administrators, policymakers, universities and colleges, and future researchers.

Special Education teachers included in the study were selected based on defined criteria to ensure representation and inclusivity. This approach also contributes to the validity and reliability of the research findings. These criteria included a bachelor's degree in Special Education, having at least (5) five years of teaching experience working with children with autism, currently serving as a public-school teacher, presently employed in Bagong Pag-Asa Elementary School as a licensed teacher, implementing self-learning materials during school closures, and demonstrate willingness to participate in the study. To adhere to ethical guidelines, keeping the participants' identities confidential is vital for this study. The study protects the participants' privacy, which helps build trust and makes them feel comfortable sharing information.

The sampling method used in this qualitative research study was purposive sampling, a non-probability sampling technique in which the researcher intentionally selects participants based on specific criteria that could provide valuable information to achieve the study's objectives.

The researcher asked permission to conduct a research study at the Bagong Pag- Asa Elementary School; right after the principal agreed to the request, the researcher collected data through individual semi-structured interviews with the five (5) teacher participants. The

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interview questions asked were questions that the researcher made. The interviews were scheduled based on the availability and preference of the participants and ensured that we abided by the no-class disruption policy. The interviews were conducted through video conferencing platforms and over the phone for the convenience of the participants. The interviews were audio-recorded with the consent of the participants to ensure accurate data capture.

#### Instrument

The primary instrument utilized in this qualitative research study was an interview. In addition, other data sources, such as document analysis, interview notes, and other related documents, were examined and used to provide additional evidence. Triangulation was utilized in this study to improve the validity and credibility of the findings. The researcher also carefully examined the transcripts to identify significant statements and themes. The interviews supplemented the need for rich data collection from the participants and an understanding of the context in which they use self-learning materials for their children with autism. These were necessary for a qualitative study, which can lead to an in-depth exploration of teachers' lived experiences. The researcher ensured that the interview questions were aligned with the research questions, literature, and theoretical framework to ensure the consistency of the study. Document analysis was employed to supplement the insights gathered from the participants' narratives. It also supported corroborating the information obtained from interviews, strengthening the trustworthiness and credibility of the findings.

Combining interviews, document analysis, interview notes, and other related documents provided a bigger picture in exploring teachers' experiences with children with autism using self-learning materials. Through these data collection methods, the study aimed to gain deep insights into teachers' experiences using self-learning materials, how teachers assessed the progress and outcomes of children with autism who engaged in self-learning materials, and how teachers adapted their teaching practices.

#### **Procedure**

The researcher wrote a formal letter addressed to the school principal of the Bagong Pag-Asa Elementary School to ask for permission to conduct a study. Right after the school principal approved the request, the researcher then asked the participants to read the consent form and agree to the terms outlined, such as a statement confirming their participation is voluntary and they can withdraw anytime without repercussions, details about confidentiality and anonymity, and contact information of the researcher. The researcher began the interview with a positive attitude and respectful interaction with the participants. The researcher started the interview by greeting participants with "Good afternoon," explaining the purpose of the interview and their essential role in the study and ensuring they provided consent to do the interview. To adhere to ethical research standards and maintain participants' anonymity, pseudonyms were utilized on audio recordings and transcribed documents. The researcher kept a stress-free conversation, and participants didn't feel interrogated throughout the interview. They were able to share accurate and thoughtful responses. Before the interview ended, the researcher asked participants if there were anything else they would like to share or add. Lastly, the researcher finished the interview by expressing gratitude for the participants' time and input.

A systematic approach was employed throughout the data collection process, ensuring that all information was meticulously sorted and labeled with key details such as dates, participants, context, and initial conclusions. This methodical approach highlights the rigor and thoroughness of the research process.

To maintain consistency and relevance, all information was meticulously organized and analyzed in alignment with the research questions. Data from various sources was gathered and examined to address all research questions effectively, ensuring the research remained focused and relevant.

In summary, this data presentation technique can significantly improve the study's findings' accuracy, consistency, and validity. This contributes to producing research findings that are not only convincing but also more useful.

### **Data Analysis**

The data analysis employed in this study was Moustakas (1994), a comprehensive method that guides the organization and analysis of qualitative data to uncover the essence of experience related to a specific phenomenon. The researcher was diligent in setting aside his biases and approaching the data with a fresh perspective. He meticulously applied data analysis techniques, beginning with a systematic organization of the data and immersing in repeated readings to identify themes that offered a deeper understanding of the studied phenomena.

The analysis employed coding techniques to reveal the underlying meanings in the data. Initially, codes were assigned to specific text, then consolidated into broader categories and comprehensive themes. These themes represent interrelated codes that convey significant meanings or patterns within the data.

The researcher immersed himself in the data by repeatedly reading and listening to the interview transcripts and examining the document analysis findings to gain a better, more in-depth understanding of the participants' narratives. This step helped the researcher understand the data and comprehensively identify recurring patterns and themes.

Throughout the data analysis, the researcher was dedicated to objectivity, critically examining any potential biases, assumptions, and preconceptions that could influence the data's interpretation. The results were based solely on the collected data, not on the researcher's

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personal biases or beliefs, which could have affected the interpretation. To ensure the study's results were credible, the researcher employed member checking and shared preliminary findings with the participants. This process allowed the participants to verify the validity and accuracy of the interpretations, adding a layer of credibility to the study. Furthermore, the researcher actively sought feedback from colleagues and experts in the field, further validating the analysis process and findings. This rigorous external validation process was essential in ensuring the study's dependability and confirmability.

During the analysis phase, the researcher continuously revisited the transcripts and interview notes, making adjustments to the codes and themes as needed. This iterative process allowed for a more nuanced understanding of the data, ensuring no valuable insights were overlooked. The results were then presented using quotes from the participants, substantiating the established themes and providing a deeper understanding of their views and sentiments. The use of precise quotations also added depth and authenticity to the findings. Through this rigorous review and modification, the final themes offered extensive insights into teachers' experiences with using self-learning materials for children with autism.

#### **Ethical Considerations**

In qualitative research, the ethical treatment of participants and careful data management are paramount. This research implemented several ethical considerations to safeguard the participants' privacy, rights, and welfare (Beauchamp & Childress, 2013). The researcher obtained informed consent from the participants to explain the study's purpose, benefits, and risks. Pseudonyms were employed to protect participants' identities without disclosing their real names. The informed consent also gave them options to participate and withdraw at any point without repercussions voluntarily.

In this research, the confidentiality and privacy of the participants were taken very seriously throughout the research process. All the data gathered, such as interview transcripts, audio recordings, and notes, were kept in a secure place where only the researcher and authorized people could access it. Identifiable information was excluded and anonymized during the data analysis to ensure the utmost confidentiality of the participants.

The study was also done by being culturally sensitive and respecting the participants' diverse cultural backgrounds and beliefs to avoid preconceptions and biases. By doing this, the researcher could explore the participants' lived experiences with appreciation and empathy for diversity.

Moreover, distress protocols were followed during the data collection to address potential harm and undue distress. Participants did not discuss things that were too personal and beyond their comfort level. The researcher also looked for signs of emotional distress and discomfort during interviews.

Throughout the study, the researcher adhered to ethical rules and practices created by appropriate research ethics committees or institutional review boards by anonymizing data, protecting confidentiality, and avoiding harm and distress. The researcher's commitment to ethical protocols remained firm.

## **Results and Discussion**

Teachers' experiences in using self-learning materials for children with autism.

## Theme 1: Equitable and Supportive Learning Environment

Respective categories arose during the analysis of the qualitative data. They are authenticity dilemma, parental involvement, communication channels, children's diversity, unsuitable content, and differentiated instructions. Correspondingly, these categories led to the creation of the main theme, "Equitable and Supportive Learning Environment."

Despite the challenge of the school closure due to the pandemic, participants still played a significant role in providing an equitable and supportive learning environment for children with autism through self-learning materials. In addition, participants also did their best to collaborate with parents and establish communication channels to support the use of self-learning materials and maintain harmonious relationships that benefit their children with autism. This mode of learning would not have been as successful without parents' assistance and support.

According to the study of Malabarbas (2022), there was a relationship between parents' involvement in modular learning and the children's academic performance. The study also conformed to the different previous findings that the participation of parents had a significant effect on children's educational progress.

## Category 1: Authenticity Dilemma

During school closures, Ms. Uniqueen and Ms. Mich stated that one of the challenges they faced was the authenticity of children's answers on their self-learning materials. They needed help assessing accurate skills and abilities and were unsure whether their children did the tasks independently or with their parent's assistance. Thus, the study by Hinay and Deloy (2022) states that parents must prevent dishonesty among their children as learning transitions to self-learning materials. It is essential to offer encouragement and guidance to their children, but it is suggested that they avoid over- assistance to encourage children to be independent and responsible as much

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as possible with their learning.

Ms. Uniqueen: "I couldn't check whether my children did it correctly or were the ones who answered their self-learning materials or were given support from their parents. As teachers, we know if our children complete the tasks alone. I had difficulty measuring the accuracy of my children's work; most of the time, I could tell parents answered the self-learning materials; it was the parents' handwriting, so that was the hard part. It was also my struggle during the pandemic." (lines 16-22)

Therefore, one of Ms. Mich's strategies was to request parents to videotape their children doing the work.

Ms. Mich: "I also asked parents' permission to videotape their children while doing the task so I could verify whether our children with autism could complete their tasks independently." (lines 13-15)

Ms. Uniqueen and Ms. Mich needed to verify the accuracy of their children's answers to the self-learning materials to ensure they meet the diverse needs of their children with autism and assign work appropriate to their present level of academic achievement. Doing this also helped them adapt their teaching practices to each child's learning style to keep them engaged and focused while doing their self-learning materials.

## Category 2: Parental Involvement

The study of Sumbilon & Valmorida (2023) indicates a high level of parental engagement, as evidenced by their active participation in parent-teacher conferences and meetings. Additionally, the research findings reveal that parents demonstrate a solid commitment to their child's educational journey, actively seeking information to guide and support their child with their self-learning materials. Parental involvement is crucial in implementing self-learning materials during school closures to ensure continuous learning despite challenging situations. Parents' guidance and motivation are vital to keeping children with autism engaged in their learning materials. They also play an essential role in ensuring that the necessary resources, support, and conducive learning space are provided at home to help their children have a positive learning outcome in this alternative mode of learning.

Ms. Melissa: "Actually, parents significantly impacted the self-learning materials during the pandemic. If we just gave the activities to children with autism, they wouldn't be as effective, in my opinion, sir, especially if there was no follow-up or guidance from their parents." (lines 12-15)

Ms. Queenie: "To answer whether we saw any improvements in my children's learning outcomes, I would say yes, somehow, but with the help of the parents. But it was so different during the pandemic. We were unsure whether our children were the ones who responded to their self-learning materials or not. Since it was pandemic time, children would just take the activities home and then turn them in one day at school, wondering whether they had done the self-learning materials by themselves or with the support of their parents or adults." (lines 21-28)

Ms. Melissa and Ms. Queenie's statements emphasized that parental involvement was pivotal during the school closures in guiding their children's use of self-learning materials. The support parents provided to their children with autism was the key to the successful implementation of this learning modality despite the challenges they faced.

### Category 3: Communication Channels

The study by Castroverde & Acala (2021) shows that a common problem teachers encounter when monitoring children's performance is the need for more effective communication. This is due to the need for gadgets and unstable internet connectivity since most monitoring is done through Messenger and other social media platforms. Teachers also use text messages, but some parents' numbers are inactive and cannot be reached. Therefore, consistent communication between teachers and parents through different communication channels is necessary to support children with autism using self-learning materials during school closures. It allows teachers to help parents and provide the assistance they need to better support their children at home, such as effective teaching strategies and behavior support to keep them engaged and motivated with the self-learning materials. In addition, communication with parents also helps teachers meet children's unique needs and provide systematically designed instructions aligned with their Individualized Education Program (IEP). Overall, this collaborative approach is beneficial for the continuous success of children with autism in using self-learning materials, even in the absence of a physical classroom.

Ms. Mich: "I provided constant communication with parents and followed through Facebook Messenger or group chat. Parents could not pick up their children's self-learning materials due to financial constraints. Some parents were jobless during the pandemic and didn't have money to commute to school and pick up their children's learning materials." (lines 25-29)

Thus, according to Ms Uniqueen, the submission of self-learning materials largely depends on parents of children with autism.

Ms. Uniqueen: "SLM (self-learning materials) submission dependent on parents' availability." (lines 28-29)

Ms. Mich's statement highlights the role of communication with parents and various communication channels in successfully implementing self-learning materials. However, she also mentioned some challenges that parents faced, such as financial constraints and unemployment, which significantly hindered them from collecting their children's self-learning materials. Therefore, Ms. Uniqueen's statement also supported Ms. Mich's statement that submitting self-learning materials greatly depends on parents. Both of

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these statements highlight the need for continuous communication strategies and the critical role of parents in their children's learning during school closures.

## Category 4: Children's Diversity

Based on the study of Manea et al. (2023), Individualization, differentiation, and interactivity are vital to ensuring that all children receive a high-quality education. These strategies can improve learning performance and make education more accessible for children with autism. Hence, teachers must consider the unique needs of children with autism in the creation of self-learning materials as well as their implementation during school closures. Adapting and aligning the self-learning materials to children's present level of academic achievement can positively impact their learning experiences, which also relates to self-regulation and sensory needs. By individualizing and customizing the self-learning materials for children with autism, teachers can guarantee that all children will have the opportunity to thrive despite difficult situations. Ms. Melissa, Ms. Queenie, and Ms. Erika accommodated diverse children's learning styles and needs while implementing self-learning materials.

Ms. Melissa: "Most children with autism were focused more on memorization and visuals; therefore, no in-depth cognition was involved in understanding the lessons." (lines 15-17)

Ms. Queenie: "I will say somehow, it's effective since our children were diverse, especially our children with autism. Some children were mild, severe, etc." (lines 18-19)

Ms. Erika: "Ah, the effectiveness of self-learning materials depends on the child's case. I had children with mild and severe autism. If it was mild, they were more functional, so I saw improvements. However, if the child had severe autism, was nonverbal, and then was unable to receive therapy sessions, you could not expect as much progress, to be honest." (lines 13-18)

The statements of Ms. Melissa, Ms. Queenie, and Ms. Erika give us ideas on the different learning experiences of children with autism using self-learning materials. Ms. Melissa emphasized that children with autism heavily rely on memorization and visuals; Ms. Queenie pointed out that the diversity of each child with autism can affect the effectiveness of self-learning materials. Ms. Erika's statement supports Ms. Queenie's statement since she stressed that children's progress depends on the severity of the child's autism. Their observations highlight the need for teachers to accommodate the diverse abilities of children with autism.

## Category 5: Differentiated Instructions

Differentiated Instruction is essential for children with autism since it ensures that the self-learning materials are tailored to their unique and individual learning needs. By allowing children with autism to express their understanding in different ways, we keep them engaged and motivated in the learning process, which makes education more inclusive for them. It also gives parents some strategies to implement self-learning materials quickly and smoothly. Moreover, modifying tasks so children can complete the self-learning materials as independently as possible is necessary to accommodate their diverse needs, especially those with special needs. Differentiated Instruction is recommended to address each child's unique educational needs and give them more learning opportunities (Adebisi, 2024).

Ms. Mich: "I would modify the instructions if I saw my children struggling with the instructions and work since they had various paces and capabilities. (lines 16-17)

Ms. Mich's statement emphasized her commitment to adapting her teaching strategies to meet the unique needs of her children with autism. She knew her children's abilities and paces and even modified instructions to ensure they understood and completed their self-learning materials.

# Category 6: Unsuitable Content

Unsuitable self-learning materials can negatively affect children with autism's learning performance. If teachers don't personalize the content based on children's current academic abilities, it might be overwhelming on their part, which also affects their learning focus and engagement. It can also trigger behavioral issues due to frustrations with the complex self-learning materials. Hence, ensuring that the learning content is appropriate to their present academic skills is vital. The study by Natividad (2021) suggests that the quality content of the self-learning materials is a crucial indicator that can result in a quality of learning. These contents stimulate critical thinking and improve children's comprehension and logical skills. Furthermore, the study also reveals that self-learning materials are enhanced when they promote children's independent learning, are appropriate to the academic level of the child, are well-constructed, lessons are logically sequenced, use simple language and instructions, and examples and problems are significant for achieving the mastery of the lesson.

Ms. Queenie:" The self-learning materials were very general, so, we, as SPED Teachers, we had to modify the instructions, especially the learning activities." (lines 20- 21

Ms. Erika:" The division office created the self-learning materials given to us, but unfortunately, they were not suitable for my children with autism." (lines 33-34)

The statements by Ms. Queenie and Ms. Erika highlight the challenges teachers of children with autism face with unsuitable self-

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learning materials. They emphasize the need for teachers to modify or even provide supplementary self-learning materials to cater to the unique individual needs of each child with autism. Personalized learning ensures that learning content is aligned with their current skills, engaging, and effective.

An equitable and supportive learning environment, shared with careful considerations for authenticity, parental involvement, communication, diversity, and differentiated instruction, can significantly enrich the learning experience for children with autism during the implementation of self-learning materials.

## Teachers assessed the progress and outcomes of children with autism who engaged in self-learning materials.

## Theme 2: Performance Monitoring to Improve Learning

Several categories surfaced during qualitative data analysis. They are assessment tools, data collection, and progress monitoring. Consequently, these categories led to the conception of the major theme, "Performance Monitoring to Improve Learning." Even in the context of self-learning modality during school closures and implementation of self-learning materials, participants were still tasked with using various assessment tools to collect data and monitor progress to provide individualized, differentiated, and effective instructions.

Based on the Alwaely et al. (2023) study, participants can help children overcome potential learning obstacles by closely monitoring their progress and offering relevant feedback. The data collected through assessments of the children's accomplishments can be used to refine teaching methodologies, customize interventions, and optimize supplementary educational resources.

## **Category 1: Assessment Tools**

Assessment tools are crucial to ensuring individualized learning experiences while using self-learning materials. These tools help teachers align the self-learning materials based on children's present level of academic achievement. Assessment tools also help teachers monitor children's progress and pinpoint the areas of need to support better and provide appropriate intervention. These tools also give parents updates about their children's progress in their learning, which can help them work on those areas of need at home. Furthermore, according to Marquez's study (2023), using assessment tools is essential when implementing self-learning materials. It is critical for collecting, analyzing, interpreting, and assessing children's performance. Teachers must use various assessment methods to monitor how much and how well children learn, catering to each child's diverse needs and learning styles. Particularly during the pandemic, providing differentiated instructions and self-learning materials is pivotal to ensuring children complete a task successfully.

Ms. Queenie: "The assessment tool that I used for my children was the developmental checklist, which showed the activities and whether my children could perform the tasks by answering yes, no, or with minimal prompts." (lines 39-41

Ms. Melisa: "Aside from the report card, I also gave my children with autism their progress reports and a checklist to track my children's progress." (lines 61-63)

Ms. Erika: "I used a developmental checklist to track my children with autism's progress. I worked with my children one-on-one online with their parents and interviewed them afterward to determine what skills our children could perform and their weaknesses, and I started from there." (lines 61-64)

Ms. Uniqueen: "I used the developmental skills as an evaluation checklist to assess and check my children's strengths and needs. In addition, parents also got a copy of the checklist, and I asked them to videotape the child performing the task (e.g., jumping three times, going up the stairs, etc.)." (lines 62-65)

Ms. Mich: "I used a developmental checklist as a tool." (line 70)

The statements of Ms. Queenie, Ms. Melisa, Ms. Erika, Ms. Uniqueen, and Ms. Mich highlighted the significance of using developmental checklists as assessment tools for children with autism using self-learning materials. The checklists allowed them to assess children with autism task performances, identify their strengths and needs, and track their progress. Parental involvement was crucial during the evaluation process, making the assessment results more accurate and effective.

#### Category 2: Data Collection

Effective data collection is significant for tracking children with Individualized Education Programs (IEP) to ensure that teachers provide high-quality learning programs tailored to each child's unique needs (Swain & Leader-Janssen, 2021). In addition, data collection is vital to performance monitoring since it systematically gathers evidence about the children's performance. It also gives teachers an understanding of the children with autism learning styles, strengths, and needs to individualize instructions and interventions to ensure the appropriateness of the self-learning materials. Teachers personalizing the content significantly benefits children with autism regarding their learning engagement, focus, and motivation.

Ms. Queenie: "Actually, I did more observation since it wasn't face-to-face at the time of the pandemic. I also observed my children's behavior even through online sessions. I used scores, too, based on my children's completion rates of their self- learning materials." (lines 45-48)

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Ms. Melissa: "The data points I collected during the learning process were more qualitative through observations through online checkin." (lines 67-68)

Ms. Erika: "I collected qualitative through observations and quantitative through scores of her children's self-learning materials." (lines 68-69)

Ms. Uniqueen: "I actually did more observations; therefore, it was more qualitative. I was focused on my children's abilities through the videos sent by the parents. Through videos, I was able to see if my children could perform a specific task and if they could do it independently or not. During the pandemic, I did a lot of performance tasks." (lines 69-73)

Ms. Mich: "Since my children were all non-graded, I did more on observations." (line 74)

Ms. Queenie, Ms. Melissa, Ms. Erika, Ms. Uniqueen, and Ms. Mich's statements emphasized the significance of observation in data collection and assessing children with autism during school closures when physical interaction was impossible. Teachers did online check-ins, asked for videos from parents, and performed tasks to measure their skills and progress. Some teachers used scores to grade self-learning materials and children's completion rates. These assessment strategies gave teachers more comprehensive data about children using self-learning materials.

## Category 3: Progress Monitoring

Progress monitoring enables tracking of the various skills of children with autism, especially their use of self-learning materials. It also informs teachers of the effectiveness of the self-learning materials and helps them make individualized education goals that align with children's abilities. Adams's (2022) research indicates that employing best practices in progress monitoring is a valid, effective, and efficient approach to enhancing children's learning achievements with Individual Education Programs (IEPs). According to Furey & Loftus-Rattan (2021) and Adams (2022), progress monitoring offers an essential opportunity (which is frequently missed) for children to engage actively in understanding and enhancing their learning performance.

Ms. Queenie: "I collected quarterly data since children and parents only came during scheduled turn-in/pick-up days. However, I also assigned supplementary activities online every week." (lines 51-53)

Ms. Melissa: "I collected data every day after the lesson and provided my children with activity sheets; then, we had a summative test every two weeks to see whether they grasped the lesson. I took notes of my children's significant behaviors and progress in class." (lines 71-74)

Ms. Erika: "I collected data weekly, as well as children's work submissions" (line 72)

Ms. Uniqueen: "I collected data daily, but only via personal messages. I also gave everyday instructions but was considerate and didn't force parents and children to send them that day, especially during the pandemic. Parents had other children to help out with, and others were also working from home." (lines 76-79)

Ms. Mich: "I collected data weekly based on the work my children accomplished every week." (lines 77-78)

Ms. Queenie, Ms. Melissa, Ms. Erika, Ms. Uniqueen, and Ms. Mich's statements focused on their strategies to collect data and monitor the progress of children with autism. The way they collected data varies from quarterly to daily and weekly to measure children's learning outcomes and engagement. The data teachers collected included observations of significant behaviors, performance of a task, and scores based on the self-learning materials turned in. They also became flexible and modified their approach to understanding family's challenging situations during school courses.

Teachers continuously assess children's performance to determine if they are making continuous and projected progress. Progress monitoring guarantees that interventions are effective and permits timely modifications. It also involves setting individualized goals, collecting ongoing data, analyzing trends, and using visual representation.

Assessment tools, data collection, and progress monitoring are interrelated factors that improve learning outcomes for children with autism during the execution of self- learning materials. Teachers can tailor instruction and promote significant progress by using evidence-based approaches and monitoring student progress.

#### Teachers adapted their teaching practices to use self-learning materials.

# Theme 3: Personalized Learning Approach

During the qualitative data analysis, a few categories appeared: lesson alignment, accommodations/modifications, and technology tools.

Accordingly, these categories led to the conception of the central theme, "Personalized Learning Approach." Despite the challenges posed by using self-learning materials during the pandemic, participants still adapted their teaching practices to provide personalized learning toempower children with autism to learn at their own pace, improve their strengths, and overcome weaknesses.

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The study of El Gazi and Imbrahimi (2024) stated that education is going through a profound transformation in today's rapidly evolving digital age to meet the needs of children who are constantly changing. This shift towards personalization is essential to address individual children's unique learning styles, interests, and paces. By combining personalized learning, educational tools, and individualized assessments, education can become a truly tailored experience, nurturing every student's diverse talent and potential.

## Category 1: Lesson Alignment

Lesson alignment involves creating lesson content that targets children's specific strengths, weaknesses, and specific sensory accommodations. It is essential as it addresses the diverse learning styles of children with autism, which promotes better comprehension and engagement. Lesson alignment supports the generalization of skills across different settings and ensures clear learning goals. Aligned lessons can also incorporate sensory supports that help children with autism with focus, communication, and behavior. This approach supports children's overall success, especially when using self-learning materials.

Consequently, teachers should assess children's different learning styles to tailor learning experiences effectively. Understanding their learning styles can make creating, modifying, and developing effective and impactful teaching approaches easier. Looking for learning activities that are engaging and suitable to their academic level can increase children's engagement in the learning process (Compania et. al, 2024).

Ms. Queenie: "We designed our children's self-learning materials. Although the division office provided self-learning materials, they were too complicated, and not all children with autism could answer them. Our SPED chairman advised us to simplify the directions and ensure we aligned the lessons to our children's ability level." (lines 60-64)

Ms. Melissa: "I chose and designed my children's self-learning materials according to their children's Individual Education Plan; I based the activities on each child's IEP and also on what effective strategies would work with a particular child. Does the child need big pictures? Are my words short and simple, or can the child understand sentences?" (lines 31-35)

Ms. Erika: "I also chose and designed self-learning materials following the MELC (Most Essential Learning Competencies), but I had to modify them, too." (lines 35-37)

Ms. Uniqueen: "I had to adjust the lessons based on my children with autism needs; there were children you had to know first to distinguish what skills and needs to target, so that's what I did." (lines 35-37)

Ms. Mich: "I implemented individualization based on children's abilities. Every child is different; some children can verbalize, and others can use PECS (Picture Exchange Communication System) or point at objects during online check-in. I also grouped my children with autism depending on their strengths, so the lesson execution was easy and not tedious for the parents." (lines 38-42)

The statements of Ms. Queenie, Ms. Melissa, Ms. Erika, Ms. Uniqueen, and Ms. Mich emphasized the significance of adapting self-learning materials for children with autism, ensuring they are tailored to their diverse needs and current abilities. Modified content, aligned with each child's Individualized Education Plan (IEP) and strengths, promotes a practical and engaging learning experience. The personalized approach benefits children with autism and their families.

### Category 2: Accommodations/Modifications

Inclusive education ensures that every child receives equitable learning opportunities and participation in learning environments regardless of their strengths or needs. Adaptation, accommodation, and modification are essential in inclusive education to support the unique needs of all children (Ruhela, 2024). Accommodating and modifying self-learning materials for children with autism is crucial. These adjustments help them understand the learning content more and learn in a way that works best for them, such as using visuals, colored pictures, bigger font sizes, and answering fewer questions. By doing this, we are helping children with autism reduce their anxiety, promote independence in doing their self-learning materials, and assist parents in implementing this learning modality effectively at home.

Ms. Erika: "When I created the supplemental self-learning materials, I provided accommodations through pictures, font styles, and text size. I also modified the materials by providing fewer questions and choosing what was essential about the topic." (lines 41- 44)

Ms. Melissa: "Since the self-learning materials provided by the district office were very general, I had to simplify everything and give the modified version to my children to complete." (lines 43-45)

Ms.Uniqueen: "The self-learning materials provided by the division office were not suitable for my children with autism. Thus, I printed my supplemental activities, such as pictures and worksheets. I also had to add more visuals to avoid children's boredom and support their comprehension of the lessons since most were visual learners." (lines 41-45)

Ms. Queenie: "I would look for some videos for my children with autism that they could watch related to our lessons. I also asked parents to guide their children while they watched the assigned video." (lines 69-72)

Ms. Mich: "I used recorded videos online during their virtual check-in. I considered using colored pictures, font style, and text sizes when I created the supplemental work for my children with autism. If I believed the activity was not doable, I modified it to ensure the

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effortless execution of parents to their children." (lines 46-49)

Ms. Erika, Ms. Mich, Ms. Melissa, Ms. Uniqueen, and Ms. Queenie's statements highlight the significance of visuals and modifying content. Ms. Erika and Ms. Mich provided accommodations using pictures and adjusted text sizes and fonts, while Ms. Melissa and Ms. Uniqueen modified self-learning materials due to unsuitable content. Ms. Queenie incorporated videos into the curriculum, and Ms. Mich also used recorded videos, ensuring the activities were modified for parents to execute with their children with autism efficiently. Accommodations include providing visuals, sensory breaks, or alternative communication approaches. On the other hand, modifications could comprise simplifying instructions or providing extra test time.

## Category 3: Technology Tools

Technology tools are essential for enhancing self-learning materials for children with autism. They provide visual learning experiences that help children comprehend and process information more efficiently, clarify instructions, and make the self-learning materials more engaging, maintaining children's focus and attention. These technology tools are also essential for providing a supportive and high-quality education. Khader's (2021) & Vergara's (2022) study indicate that blended learning, like self-learning materials, effectively enhances children's performance. Moreover, integrating technology tools into learning can significantly improve children's engagement and learning outcomes.

Ms. Queenie: "I also used an app called Canva to enrich the self-learning material." (line 78)

Ms. Melissa: "I used technology tools to enhance my children's self-learning materials. I also got the images from Google and used Microsoft PowerPoint and Canva during the online check-in." (lines 50-52)

Ms. Erika: "I used Canva as a technological tool to improve self-learning materials for my children with autism. I also used Canva and Microsoft PowerPoint during their virtual flag ceremony to check attendance and recognition." (lines 48-51)

Ms. Uniqueen: "Canva was a great help during the pandemic because it was an accessible technology tool, I explored to enhance self-learning materials." (lines 48-49)

Ms. Mich: "I used Canva, Microsoft Word, and PowerPoint to develop the self- learning materials and online presentations." (lines 53-54)

Ms. Queenie, Ms. Melissa, Ms. Erika, Ms. Uniqueen, and Ms. Mich all utilized a technology tool called Canva to improve the self-learning materials for children with autism to ensure individualization, accessibility, and effectiveness. Some teachers used Microsoft Word, PowerPoint, and Google to personalize the self-learning materials. The technology tools these teachers used also helped them execute online check-ins with their children with autism, flag ceremonies, and even recognition day. Overall, integrating these online tools has been beneficial to teachers in providing visual support and engaging activities, which are vital to promoting a child's independence in completing their self-learning materials.

## Theme 4: Teachers Empowerment

A relevant category arose during the analysis of the qualitative data. It is professional development. This category led to the central theme, "Teachers Empowerment.

During the school closures, teacher empowerment is vital for successfully implementing self-learning materials for children with autism. When teachers feel empowered, they become more productive, which leads to positive attitudes, creative teaching approaches, and improved classroom management, which benefits children with autism access to personalized learning and receive a good quality education that meets their diverse needs.

According to a study by Johnson et al. (2021), professional development training for working with children with autism dramatically affects teacher self-efficacy ratings. Additionally, based on a study by Kossewska et al. (2021), teachers reported an increase in their knowledge concerning the characteristics of children with autism after attending professional development workshops, and they also had a positive effect on teachers' subjective confidence regarding professional competencies.

#### Category 1: Professional Development

Given that children with autism necessitate specialized design instruction to meet their diverse needs, special education teachers must participate in effective professional development programs to equip them with the necessary support and resources to serve and educate children with autism effectively Abudabbous, N. (2022). Therefore, teachers must have the training to execute personalized learning effectively, master differentiated instruction, and use data-driven practices.

Ms. Queenie: "Actually, there was none; I didn't get any training before during the pandemic; the only support I got was from my fellow sped teachers and my department chairman." (lines 82-84)

Ms. Melissa: "I don't remember any training provided to us, sir. "Sabak agad sa giyera (we went straight to the battlefield)." (lines 56-57)

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Ms. Erika: "Yes, sir. I was supposed to be a module writer, but I decided not to pursue it at that time due to my asthma. Although training was provided to us, it was for all." (lines 55-57)

Ms. Uniqueen: "Honestly, the only teachers getting trained were often the tenured or the higher-ups. Then, we would just be given the learning materials and were expected to figure it out by themselves, study them, and modify them for the children. However, I was very optimistic. Although it was a sad reality, at least somehow, I learned how to be independent and not dependent on anybody." (lines 53-57)

Ms. Mich: "In all fairness to the government (DepEd), they made it a point that the training was continuous for teachers; however, it was only provided online due to the pandemic. There was also school-based training, which was held online since there was no face-to-face at that time. There were recorded videos sent by the Department of Education (DepEd) and simple video lessons to guide them." (lines 58-63)

Professional development should be provided to teachers to address and meet the specific needs of children with autism, such as visual supports, differentiated instructions, behavior management, and creating an inclusive environment.

## Theme 5: Building Confidence

Two categories emerged during qualitative data analysis. It's feedback and motivation. Consequently, these categories led to the central theme, "Building Confidence."

Building confidence in children with autism is crucial in their learning process, especially during the implementation of self-learning materials since it is primarily self- directed learning, which is our goal for them to be as independent as possible. When children with autism are confident with what they can do, they are more likely to engage and persevere in completing tasks and learning new things. On the other hand, feedback and motivation are also pivotal in helping children with autism understand their strengths and needs, engage in learning, and achieve learning goals to be successful in their present and future learning environment.

Danker et al., 2019, and Villegas et al., 2022 indicated that teachers need to get to know their children during teacher-children's interactions. This helps teachers become aware of the children's strengths, which they can focus on to increase their sense of accomplishment.

## Category 1: Feedback

According to the study of Leung et al. (2022), feedback is a pivotal part of educational and training curricula. It enables children to maximize their potential throughout various stages of their academic journey, helping them realize their strengths and needs and pinpoint ways to improve their performance. In addition, feedback is essential for children with autism when using their self-learning materials since it guides them in their learning materials and provides clear expectations. Teachers providing positive feedback helps children get encouraged and motivated, improving their focus and engagement with the learning content. Feedback also enhances children's self-regulation skills, which reinforces their independence in completing their self-learning modules. Therefore, feedback is a key to children's success in this learning modality.

Ms. Queenie: "I would collect my children's self-learning materials, but I didn't rate and give them quantitative scores anymore since it was during the pandemic; I was unsure whether parents helped them with the work or did it alone. I also gave feedback through checklists and progress reports on whether they completed the tasks. I had difficulty observing and evaluating since I couldn't see my children then." (lines 87-92)

Ms. Melisa: "During the self-learning modality, the materials were sent to the school every two weeks; parents would turn in the self-learning materials, and then I would check and provide them with grades and notes. Parents were notified about the pick-up schedule. I also gave my children feedback during their online check-in via Google Meet." (lines 77-81)

Ms. Erika: "I checked my children's self-learning materials first and contacted parents individually through Facebook Messenger to give feedback. However, most of the time, I felt that only the parents answered all the learning materials, not my children with autism." (lines 75-78)

Ms. Uniqueen: "The ultimate feedback I gave my children was just the message stickers. It was a reward and feedback to my children at the same time." (lines 82-83)

Ms. Mich: "I gave my children feedback during their online check-in via Google Meet. What have you guys accomplished so far?" "Teacher, this is a more effective strategy; can we try this instead?" I welcomed parents' feedback as long as it would help their children." (lines 86-90)

Ms. Queenie, Ms. Melissa, Ms. Erika, Ms. Uniqueen, and Ms. Mich shared various ways to provide feedback to their children with autism and their parents. Ms. Queenie used checklists and reports instead of giving grades to her children due to the inaccuracy of the children's answers in their self-learning materials. Ms. Melissa provided feedback through grades and notes on their work and during online check-in using Google Meet. Ms. Erika used Facebook Messenger to give feedback to parents about the corrected self-learning materials. Ms. Uniqueen gave children fun and message stickers as her feedback and motivation. Ms. Mich gave children and parents

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feedback and asked how they were doing through Google Meet. These statements highlight teachers' challenges and adaptability to ensure continuous and effective learning for children with autism.

## Category 2: Motivation

Motivating children is essential, especially during the implementation of self- learning materials due to school closures. It reinforces children with autism's positive behavior and encourages them to do their best to complete the tasks. When children with autism are motivated, they are eager to learn more and show their best behaviors. So, teachers and parents need to continue to provide their children with motivation and positive reinforcement, such as tangible items, specific praise, and a reward system, to encourage the good behavior of children when they use their self-learning materials at home. Overall, teachers' motivation in their profession and children's motivation to learn significantly contribute to enhancing the quality of education (Zou et al. (2023).

Ms. Queenie: "Since it was during the pandemic, I had to work with my children and parents one-on-one to talk to them during our online check-in; I also asked parents to provide proper pacing and rewards to motivate our children with autism since they also stayed home at that time." (lines 96-99)

Ms. Melissa: "During my virtual class, I would see my children. I would talk to them and motivate them by telling them they would get a star if they completed their work and were seen working. I also used a reward system." (lines 85-88)

Ms. Erika: "I did check in with my children during our online sessions; Parents sometimes told me their son had a tantrum and asked me for strategies to support their child. I suggested parents limit their child's use of gadgets and instead talk to him more, not make gadgets to soothe the child when they are having a rough time. I also told them that maybe after completing the task, their child could play on the iPad, but with limited time as a motivation. I even asked parents to monitor what their child is accessing on the iPad." (lines 82-89)

Ms. Uniqueen: "The ultimate feedback I gave my children was just the message stickers. It was a reward and feedback to my children at the same time. To encourage my children, I made and printed stickers of fruits (e.g., Langka-tulad, Pina-saya mo, Mangga- ling ka). I made them happy with the simple rewards, especially since my children couldn't go out during the pandemic." (lines 87-92)

Ms. Mich: "I trained parents about autism; I informed them that children with autism was structured; therefore, their routines before the pandemic had to be carried over even during the pandemic. I also advised parents that they could introduce the task gradually with proper timing and motivation. I also added that if the child was motivated by a particular toy, they should give it to him if he did his work. I believed in conditioning the child, that the child would dictate the tempo, and that was where you come in." (lines 94-100)

The statements of Ms. Queenie, Ms. Melissa, Ms. Erika, Ms. Uniqueen, and Ms. Mich all referred to their strategies for motivating children with autism using positive reinforcement and rewards. Ms. Melissa and Ms. Uniqueen provided stars and fruit-themed message stickers to encourage their children. On the other hand, Ms. Queenie, Ms Erika, and Ms. Mich asked parents to reward their children after completing their self-learning materials like the timed use of gadgets, playing with a toy, and the things that were reinforcing to their children. These statements highlighted teachers' dedication and willingness to enhance engagement and learning outcomes for children with autism.

## **Structural Description**

In the context of themes generated teaching strategies used by teachers to support children with autism, using self-learning materials during school closures can create more effective and personalized self-learning materials aligned to the diverse needs of children with autism.

# Time

The experiences of Ms. Queenie and Ms. Melissa with self-learning materials are greatly connected with the concept of time. Ms. Queenie adapted her teaching approaches to the new learning modality by increasing her observation of children's behaviors during online check-in and utilizing scores to track the progress of children with autism using self-learning materials. This shift directly responded to the challenges of being unable to interact face-to-face, highlighting the time-based adjustments made during school closure.

Ms. Queenie: "Actually, I did more observation since it wasn't face-to-face at the time of the pandemic. I also observed my children's behavior even through online sessions. I used scores, too, based on my children's completion rates of their self- learning materials." (lines 45-48)

Likewise, Ms. Melissa established a routine governed by time; she collected data daily and conducted summative tests bi-weekly to assess the student's comprehension of the lessons. Her meticulous note-taking of significant behaviors and progress in class further stresses the importance of time in structuring the educational experience.

Ms. Melissa: "I collected data every day after the lesson and provided my children with activity sheets; then, we had a summative test every two weeks to see whether they grasped the lesson. I took notes of my children's significant behaviors and progress in class." (lines 71-74)

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Together, these practices demonstrate how time shaped their teaching strategies during the school closure and measured children's engagement and learning development with self-learning materials.

## Space

The statements of Ms. Erika and Ms. Mich are related to the concept of space.

In Ms. Erika's statement online check-ins and discussions with parents about managing their children's limiting the gadget use relate to the conceptual space of learning and behavior management. By suggesting limits on gadget use and encouraging more direct interaction, the teacher is advocating for a learning space that minimizes distractions and promotes focused engagement with self-learning materials.

Ms. Erika "I did check in with my children during our online sessions; I also indicated that parents sometimes told me their son had a tantrum and asked me for strategies to support their child. I suggested parents limit their child's use of gadgets and instead talk to him more, not make gadgets to soothe the child when they are having a rough time. I also told them that maybe after completing the task, their child could play on the iPad, but with limited time as a motivation. I even asked parents to monitor what their child is accessing on the iPad." (lines 82-88)

Ms. Mich's statement emphasizes the need to maintain structured routines for children with autism, which is part of creating a consistent and predictable space that supports learning. The gradual introduction of tasks and the use of motivation and rewards (like a favorite toy) help to structure the child's learning space, making it conducive to their needs and paces.

Ms. Mich "I trained parents about autism; I informed them that children with autism was structured; therefore, their routines before the pandemic had to be carried over even during the pandemic. I also advised parents that they could introduce the task gradually with proper timing and motivation. I also added that if the child was motivated by a particular toy, they should give it to him if he did his work. I believed in conditioning the child, that the child would dictate the tempo, and that was where you come in." (lines 94-100)

Both statements highlight the importance of structuring the learning environment— whether it's the home during online sessions or the more abstract space of routines and behavioral expectations—to support the effective use of self-learning materials for children with autism. This structuring of space, both physical and behavioral, is crucial for creating an atmosphere where learning can thrive, especially during school closures.

#### **Materiality**

The statements provided by Ms. Queenie, Ms. Uniqueen, and Ms. Erika are linked to the concept of materiality, which refers to the physical and tangible characteristics of self-learning materials and settings that affect the learning experiences of children with autism.

Ms. Queenie's observation about the need to modify generic self-learning materials emphasizes the importance of educational materiality and specificity in addressing the diverse needs of students, especially those with children with autism.

Ms. Queenie: "The self-learning materials were very general, so, we, as SPED Teachers, we had to modify the instructions, especially the learning activities." (lines 20- 21)

Ms. Erika's use of technology tools like Canva and Microsoft PowerPoint to improve self-learning materials and conduct virtual checkins demonstrates the integration of digital materiality in education.

Ms. Erika: "I used Canva as a technological tool to improve self-learning materials for my children with autism. I also used Canva and Microsoft PowerPoint during their virtual flag ceremony to check attendance and recognition." (lines 48-51)

Ms. Uniqueen's use of a developmental skills checklist and the request for parents to record their children doing tasks show the materiality of the assessment. Additionally, Ms. Uniqueen's use of message stickers as feedback and reward systems contributes to the affective aspect of materiality.

Ms. Uniqueen: "I used the developmental skills as an evaluation checklist to assess and check my children's strengths and needs. In addition, parents also got a copy of the checklist, and I asked them to videotape the child performing the task (e.g., jumping three times, going up the stairs, etc.)." (lines 62-65)

Ms. Uniqueen: "The ultimate feedback I gave my children was just the message stickers. It was a reward and feedback to my children at the same time." (lines 87-88)

These statements reflect the relationship between materiality and academic instruction, where the physical aspect and structure of learning materials and technology tools are thoughtfully considered and tailored to enrich the learning experience for children with autism.

#### Causality

The statements from Ms. Melissa and Ms. Erika can be connected to causality, which involves understanding the cause-and-effect

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relationships within the learning environment.

Ms. Melissa highlights the crucial role of parental involvement as a causal or contributing factor in the effectiveness of self-learning materials. Her observation implies that the self-learning materials alone are not as effective without parental follow-up or guidance.

Ms. Melissa: "Actually, parents significantly impacted the self-learning materials during the pandemic. If we just gave the activities to children with autism, they wouldn't be as effective, in my opinion, sir, especially if there was no follow-up or guidance from their parents." (lines 12-15)

Ms. Erika states that the effectiveness of self-learning materials dramatically depends on the severity of autism in children. She notes that children with mild autism showed improvements, implying a causal connection between the functionality of the child with autism and the effectiveness of the self-learning materials. Ms. Erika added that for children with severe autism, especially those who are nonverbal and lack therapy sessions, the expected progress is limited.

Ms. Erika: "Ah, the effectiveness of self-learning materials depends on the child's case. I had children with mild and severe autism. If it was mild, they were more functional, so I saw improvements. However, if the child had severe autism, was nonverbal, and then was unable to receive therapy sessions, you could not expect as much progress, to be honest." (lines 13-18)

Ms. Melissa and Ms. Erika's statements highlight the significance of considering different causal or contributing factors, such as parental involvement and the severity and functionality of the child with autism, when supporting them using the self-learning materials.

## Relationship with Self and Others

The statements from Ms. Uniqueen, Ms. Mich, and Ms. Melissa can be connected to the Relationship between self and others, which refers to how individuals perceive and interact with themselves and the people around them within the learning environment.

Ms. Uniqueen's concern about not being able to verify the authenticity of her children's work refers to the challenges of self-learning materials modality. It highlights the significance of honesty in children and the trust and support systems between teachers, parents, and children with autism.

Ms. Uniqueen: "I couldn't check whether my children did it correctly or were the ones who answered their self-learning materials or were given support from their parents. As teachers, we know if our children complete the tasks alone. I had difficulty measuring the accuracy of my children's work; most of the time, I could tell parents answered the self-learning materials; it was the parents' handwriting, so that was the hard part. It was also my struggle during the pandemic." (lines 16-22)

Ms. Mich's strategy of maintaining constant communication with parents of children with autism using digital platforms like Facebook Messenger or group chat is a powerful tool for fostering stronger relationships and communication systems. Her commission of individualization based on each child's abilities and the use of the Picture Exchange Communication System (PECS) for nonverbal children not only shows an understanding of the uniqueness of each child with autism but also enables peer relationships and creates a diverse learning environment.

Ms. Mich: "I provided constant communication with parents and follow through Facebook Messenger or group chat." (lines 25-26)

Ms. Mich: "I implemented individualization based on children's abilities. Every child is different; some children can verbalize, and others can use PECS (Picture Exchange Communication System) or point at objects during online check-in. I also grouped my children with autism depending on their strengths, so the lesson execution was easy and not tedious for the parents." (lines 38-42)

Ms. Melissa's statement about the lack of training and being pushed into the situation reveals the reliance required of teachers during challenging situations. It also highlights the Relationship between teachers and school administrators and the need for proper training and support.

Ms. Melissa: "I don't remember any training provided to us, sir. "Sabak agad sa giyera (we went straight to the battlefield)." (lines 56-57)

These statements highlight the importance of promoting positive relationships with self and others, especially using self-learning materials for children with autism.

## Essence

The essence of this study is to outline the structured approach teachers use to facilitate learning, especially using self-learning materials for children with autism. It emphasizes the significance of structure and routine in using this learning modality, which is crucial for the learning and development of children with autism during school closures and implementing alternative delivery modes.

Time management is crucial for creating a consistent, structured, and predictable classroom environment because it helps children with autism thrive, improves learning, and makes every transition smoother for them. Therefore, teachers and parents at home implementing the self-learning materials need to provide consistent, structured, and predictable routines, which can significantly benefit children with autism, providing them with a sense of reassurance and reducing their anxiety. On the other hand, the essence of space is to provide a

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conducive learning environment that reduces distractions and helps children with autism focus on their self-learning materials. Thus, teachers and parents must provide autistic children with a personalized learning environment that accommodates their sensory needs, such as decreasing visual distractions, using natural lights, creating a quiet atmosphere, and incorporating sensory toys like fidget spinners or stretchy toys. Conversely, materiality refers to the hands-on self-learning materials that support the diverse needs of children with autism. So, teachers need to create and provide self-learning materials that meet each child with autism's unique learning styles to make sure they thrive. By aligning their self-learning materials to their academic level, we can ensure that we provide appropriate challenges and support, which reduces frustrations and instead can build their confidence, especially when they constantly feel successful. In addition, when children with autism complete their self-learning materials independently, they enhance their self-help skills and sense of autonomy, which is our primary goal for all our children.

In contrast, causality refers to understanding the antecedents, triggers, and responses of children with autism while completing the self-learning materials. Teachers and parents need to work together and develop effective strategies to support and regulate children with autism behaviors that may occur when using self-learning materials. When we recognize the triggers and cause of the behavior, we prevent meltdowns, understand their feelings, and meet their needs more. It also fosters trust and positive relationships between teachers and children with autism. Lastly, the relationship's essence is the harmonious partnership and connection between teachers, parents, and children with autism have a good relationship, it builds trust and understanding, which benefits the children with autism even more. We can address their academic, social, and emotional needs more.

#### Conclusions

This research explored teachers' experiences with children with autism using self- learning materials during school closures. Their experiences give us significant insights, themes, and categories that can impact future teaching practices to support our children with autism better.

Teachers' vital role is to provide individualized and personalized self-learning materials by providing differentiated instructions to meet the diverse needs of children with autism. Continuous and open communication with parents benefits the children by adjusting their Individual Education Plan (IEP) and learning resources to ensure they are tailored to their strengths and needs to become more successful. Teachers' various communication channels are essential for creating a solid partnership supporting parents during school closures and implementing alternative delivery modes, as well as the importance of teacher-parent solid collaboration to support the unique learning journeys of children with autism during unprecedented times.

The various assessment techniques, such as developmental checklists, online observations, videos sent by parents, and frequency of data collection, emphasize the significance of a tailored approach for children with autism, especially in getting a bigger picture of their engagement and learning progress. Teachers' flexibility despite school closures and alternative learning environments reflects their commitment to supporting children in reaching their full potential.

Teachers have adapted their teaching practices to provide a good-quality education through self-learning materials despite challenging situations due to school closures by creating supplementary activities aligned to their Most Essential Learning Competencies (MELC), modifying self-learning materials, utilizing technology tools, attending professional development, and providing feedback and motivate to children with autism. Adapting teaching practices ensures teachers cater to each child's diverse strengths and needs, promoting positive learning outcomes. Supporting children's social, emotional, and behavior is emphasized. Many children with autism face changes in routine issues, which gives them stress and anxiety. Social stories, sensory support, positive reinforcement, and continuous parental collaboration are necessary to help them thrive. Teachers' efforts and dedication to what they do reflect their commitment to providing inclusive education for all, especially children with autism.

Based on the significance of this study and the research questions, the following recommendations were proposed to improve teachers' experiences with self-learning materials for children with autism.

Children with Autism may be provided with activities and self-learning materials aligned to their strengths and needs to ensure they are motivated and engaged in learning to improve their skills. Additionally, visuals may be incorporated into their self-learning materials to support their understanding of instructions and comprehension of information quickly.

Parents play a crucial role in their child's education journey, guiding and supporting their children with Autism using self-learning materials. Their active involvement may enhance the children's learning achievement and self-esteem and provide valuable insights to teachers about their strengths and needs, thereby enriching their children's learning experience.

Teachers may seek professional development and training opportunities to improve their skills, especially in using and implementing self-learning materials. Furthermore, teachers may modify self-learning materials to ensure alignment with their Most Essential Learning Competencies (MELC), Individual Education Plan (IEP), and the diverse needs of each child with Autism. In addition, they may use various technology tools to create engaging and accessible self-learning materials. Lastly, teachers may use positive reinforcement such as tangible rewards, social praise, and even edibles to motivate children and increase independence.

Schools and the Department of Education may ensure that all new or tenured teachers receive professional development to effectively

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adapt and implement self-learning materials, which is a shared responsibility. Creating a child-friendly learning environment that caters to the various needs of children with Autism is a commitment to their thriving. Supporting and encouraging strong partnerships between parents and teachers is a collective effort that benefits children's learning experience. Finally, reviewing and revising self-learning materials to ensure they align and suit all children's diverse academic skills is continuous.

Future Researchers may conduct further studies to assess the benefits of continuous and comprehensive professional development for all teachers on the effectiveness of self-learning materials. They may also further examine the benefits of individualized and personalized self-learning materials when aligned to children with Autism's present level of academic achievement. Lastly, future researchers may further explore the parent's role in the learning process and pinpoint the effective ways to support them.

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