Lived Experienced of Teachers Handling Students with Intellectual Disabilities in the Virtual Learning System

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ABSTRACT

This research study examines the experiences of teachers who instruct students with intellectual disabilities in virtual learning environments. Recognizing the ongoing challenges educators encounter in effectively supporting these students, especially amidst the rapid advancements in educational technology, this study aims to provide valuable insights into the development of inclusive education practices. Utilizing a phenomenological approach, in-depth interviews were conducted with three teachers—two through direct conversation and one via written responses—to capture the nuances of their experiences, as well as the emotional and psychological well-being of both the teachers and the students.

The findings reveal essential themes related to the impact of virtual education on teaching methodologies, emotional resilience, and the necessity for culturally responsive pedagogies. The research advocates for adapting learning environments to support students with intellectual disabilities better. It proposes effective strategies, including flexible scheduling, the integration of culturally relevant content, and encouraging family involvement. By emphasizing the importance of teachers' perspectives, this study contributes to ongoing discussions about inclusive education, highlighting constructive approaches that can enhance the effectiveness of virtual learning settings.

It highlights the unique challenges educators face when adapting instructional strategies to meet the diverse needs of their students, including issues related to technology accessibility, communication barriers, and the need for tailored teaching approaches. Through qualitative interviews and observational data, the study identifies key factors that influence effective teaching practices in online settings. The findings underscore the importance of creating supportive frameworks that enhance educator capacity and foster inclusive learning experiences. This research provides valuable insights for policymakers and educational institutions seeking to enhance virtual education for students with intellectual disabilities.

Keywords: Virtual learning; intellectual disability; teacher's experiences; Middle East; qualitative method

INTRODUCTION

The COVID-19 pandemic has fundamentally transformed the landscape of education, pushing many teachers and students into uncharted territory where virtual platforms abruptly replaced traditional teaching methods. In this context, a particular group has faced unparalleled challenges: teachers of students with intellectual disabilities. This research study, titled "Lived Experienced of Teachers Teaching Students with Intellectual Disability in a Virtual Learning Environment," delves into the profound and often untold stories of educators striving to adapt their teaching practices amid a global crisis. As classroom doors closed and social distancing measures became the new norm, the demand for effective and inclusive education grew more pressing than ever. Amid these challenges, teachers had to navigate not only technological hurdles but also the emotional and social needs of their students, revealing a stark reality: many felt ill-equipped and overwhelmed. Through this study, we aim to illuminate the resilient spirit of these educators, exploring their unique experiences, the obstacles they faced, and the strategies that emerged as they worked tirelessly to provide quality education. It

is imperative that we listen to their voices, recognize their struggles, and implement meaningful changes to ensure that every child, regardless of ability, can thrive in this new educational reality. We invite you to join us in conducting a thorough examination of these critical insights, advocating for the ongoing development of inclusive education within the context of a virtual landscape. Together, we aim to develop effective strategies that will enhance equitable learning experiences for everyone.

LITERATURE REVIEW

The following studies and literature are relevant to this research. The purpose of this research was to describe the common meaning of various individuals' lived experiences of a phenomenon (Creswell, 2013). This involved emphasizing the phenomenon as a single notion or concept, stressing significant philosophical assumptions, typically conducted through interviews and data analysis that progressed from small units to broad themes, culminating in a presentation of the essence of the phenomenon as experienced by these special education teachers. The results presented a richly defined understanding of the lived experiences of special education teachers managing students with intellectual disabilities in the virtual learning system. This literature review focused on the experiences of special education teachers, as well as the barriers and challenges they face in implementing the virtual learning system as an instructional tool, to understand how these teachers can effectively utilize virtual learning with children with intellectual disabilities.

According to Meccawy (2021), a study on higher education performance during the COVID-19 pandemic was conducted in Bahrain, a neighboring Arab country to Saudi Arabia, which is also a member of the Gulf Cooperation Council (GCC) and shares similar social and traditional norms. It focused on student-teacher interaction and examined the lack of visual interaction in virtual classes, as well as its effects on the learning experience during the pandemic. Although students were given the option to use video cameras, the majority chose not to. Self-consciousness and a lack of private space at home were cited as reasons for this preference for attending online classes. The study concluded that their learning experience and ability to build a sense of community may have suffered as a result of their absence.

Teaching and Learning Processes for Students with Disabilities Before the Pandemic

As stated by Sholikhati (2021), learning is a process that involves both teaching and learning activities, which contribute to student success. To achieve learning objectives, interactive activities were conducted between teachers and students, along with reciprocal communication within an educational setting. Teachers and students were integral components of the learning process, and mutually supportive interactions were established to achieve optimal outcomes for both teachers and students. In line with this, students required their teachers to provide material and knowledge essential for the development of their education and human resources. Before and during the pandemic, various aspects of teaching and learning in schools underwent significant evolution. Educators needed to implement or modify several strategies to ensure the learning process was effective. This was accomplished through the adaptation of learning strategies tailored to the specific needs and abilities of students with special needs, emphasizing the modification and accommodation of learning materials, methods, media, and evaluation processes. Students with basic skills below the class curriculum target, such as those with mild to moderate intellectual disabilities and autistic students, may receive learning modifications. Meanwhile, the learning accommodations involved adjusting methods for delivering material, learning media, and evaluation techniques to suit students' modalities for accessing information and responding to instructions. Accommodations and modifications can be used simultaneously. However, Godhe et al. (2019) suggested that a lack of resources, skills, competencies, or interests may lead to significant differences between schools. There has been a long-standing tradition in learning environment research of using classroom environment criteria to measure the effectiveness of various educational innovations or programs (Fraser, 2018). Special education teachers employed a hands-on approach to teaching students with disabilities. This was further complicated by the need to use an individualized approach, such as emergency online learning or flexible learning while considering the various disabilities of their students (Toquero, 2021). Before the pandemic, these teachers managed students with disabilities in a traditional special education class.

Teaching and Learning Processes for Students with Disabilities During the Pandemic

According to Prayogo's (2021) views, the teaching and learning process continues to incorporate adaptations in response to the COVID-19 pandemic, specifically by substituting face-to-face learning activities at school with home-based learning using contextual strategies. Learning at home utilizes technology as both a medium for teacher-student interaction and a source of learning content. Moreover, the application of contextual strategies in language learning can be seen in teacher assignments that relate to daily activities and the use of existing resources in the environment, such as compiling descriptive texts about objects in students' surroundings. Cutshall et al. (2021) study supports the notion that the rapid spread of COVID-19 has impacted the effectiveness of social distancing measures intended to curb the virus's transmission. Work-from-home (WFH) policies, school closures, online learning, and extensive social distancing measures are among the measures that limit social movement. During the pandemic, virtual or online learning emerged as a viable and effective option. However, the absence of specialized training needed to support students with special educational needs and disabilities during the transition to emergency remote instruction hindered educators' ability to provide quality online education (Toquero, 2020).

In Dhawan's (2020) article, he asserts that, according to some experts, such education is easily accessible and can reach rural and even remote areas. However, implementing this knowledge is closely linked to several challenges. In Hermansyah et al. (2022), the authors mention that during the COVID-19 pandemic, virtual learning posed numerous challenges for teachers and schools. As highlighted by Duraku and Hoxha (2020), these challenges are partly related to teachers' competencies in executing online learning and their technological skills. Sakarneh (2021) observes that teachers experience heightened stress and anxiety levels due to the significant shift in learning. Additionally, students are prone to boredom and tend to lack motivation to engage in the learning process. Meanwhile, parents are often unprepared to support their children with online learning (Sakarneh, 2021). Several studies have also identified issues with implementing online learning for individuals with disabilities. Students often exhibit a reluctance to complete online work due to low motivation, technological difficulties, distance from teachers, limited time spent with them, and insufficient parental support.

The Teaching and Learning Processes for Students with Disabilities During the Pandemic Easing

As the number of students with disabilities worldwide in online and hybrid courses continued to rise, it became imperative for teachers, parents, and public institutions to assess their ability to provide and support virtual accommodations. According to Pace et al. (2020), schoolteachers found it challenging to transition to online teaching because they were compelled to do so and realized they lacked adequate preparation. The primary strategy promoted in this study was "crisis teaching," complemented by other resources to implement differentiation, collaboration, and demonstrative learning. Accessibility and equity issues were also addressed, enabling teachers to enhance their teaching skills within a virtual learning environment. This also benefited teachers who had underlying medical conditions. According to Black et al. (2020), COVID-19 enabled parents to explore alternative learning options, particularly for students with medical concerns. The conclusion is that distance education, prompted by this pandemic, may become a new norm due to the barriers it has created for conventional or traditional classroom settings. Although teachers should be commended for their prompt response, the educational outcomes were unsatisfactory, families felt burdened, and many were hesitant to repeat the same format. Mitchell (2020) stated that, despite students' legal right to access special education services for academic success, these services were not always easily transferable to either distance learning or in-person learning with social distancing. Mitchell also presented a range of options endorsed by public health officials for promoting socially isolated schools, including (a) the socially distant school day, (b) scheduling the school year, (c) addressing transportation issues, (d) making remote learning effective, (e) teaching and learning, (f) overcoming learning loss, (g) teaching social-emotional skills, and (h) closing equity gaps.

Continuation of the Virtual Learning System for Students with Disabilities

According to Martin et al. (2021), a pessimistic perception of the virtual learning environment emerged due to the execution of learning activities, the flipped classroom methodology, and the substantial involvement of instructors that this methodology facilitated. Bailey et al. (2020) suggested that states, districts, and schools

should consider various factors, including school operations, whole-child support, school personnel, academics, distance learning, and other general considerations. They also noted that, due to their effective management of COVID-19, schools were allowed to be more creative in using tools to ensure that students continued to receive essential learning despite the pandemic and that they were preparing to return to traditional classroom settings when necessary. According to Mahoney and Hall (2020), this involved a computer-mediated information exchange where all participants were online simultaneously. On the other hand, Fitzpatrick et al. (2020) noted that despite these promising results, other studies have shown that transitioning to distance learning has had negative consequences.

According to Adams and Todd (2020), parents worldwide face challenges in balancing their job responsibilities with facilitating their children's distance learning. Supratiwi et al. (2020) noted that online learning for students with disabilities necessitates the assistance and involvement of parents, particularly for those at the primary and middle school levels. Hart et al. (2019) agreed that research suggests distance learning may be as beneficial, if not more so, than in-person instruction for some mainstream students; however, less is known about the effectiveness of distance learning for students with severe developmental disabilities and high behavioral needs.

According to Colombo et al. (2020) and LeBlanc et al. (2020), accessibility was considerably difficult for students, teachers, and families to consistently use the program and its services, with many children unable to log on. Mapping the issues and needs of teachers can provide recommendations to schools, educators, and parents regarding online learning alternatives.

Adedoyin and Soyokan (2020) concluded that their learning experience and ability to foster a sense of community may have suffered due to their absence. This finding was consistent with a prior study conducted before the pandemic lockdown, which concluded, "A disadvantage of the learning environment was often the loss of visual and audible cues normally observable from the students." Furthermore, a 2020 study involving a hybrid virtual classroom found that "a good quality of audio and video was a crucial factor in successful remote learning." According to Meccawy (2021), using video was not an option as social norms discouraged students and faculty from turning on their webcams. Instead, they communicated in virtual classes through voice and chat.

Synthesis

The existing body of research on the experiences of special education teachers, particularly in the context of virtual learning during the COVID-19 pandemic, presents several critical debates and opportunities for appraisal. One central theme is the adaptability of educational practices in response to unprecedented challenges. Studies conducted by Meccawy (2021) and Prayogo (2021) underscore the urgent need for flexibility and innovation in teaching methods during the pandemic. However, a critical appraisal reveals that while many educators attempted modifications to their teaching strategies, substantial discrepancies existed in the implementation and effectiveness of these adaptations. Factors such as available resources, skill levels, and institutional support significantly shaped how different teachers managed the transition to online learning. This inconsistency suggests that equity in access to educational resources remains a pressing challenge, which might be overlooked in the broader discourse around innovation.

Additionally, the emphasis on virtual interactions raises important considerations about the quality of teacher-student relationships in a digital context. The findings from Meccawy (2021) suggest that a lack of visual interaction hindered students' learning experiences and their sense of community, aligning with previous research on the importance of interpersonal connections in education. Comparative studies are necessary to evaluate how virtual learning affects not only academic outcomes but also the emotional and social development of students with disabilities. The reluctance of students to engage with video conferencing, as reported in Meccawy's findings, invites further investigation into the psychological barriers that may affect engagement in online learning environments.

Furthermore, there is a critical need to analyze the pedagogical frameworks that govern teaching practices for students with disabilities in virtual settings. While Sholikhati (2021) discusses the need for interaction and

mutual support between teachers and students, it raises questions about whether traditional methods of engagement are adequate in a remote learning framework. Research must explore how these relationships can be maintained or even strengthened in a virtual context, offering insights into best practices for engaging students with intellectual disabilities.

The distinction between accommodations and modifications, as highlighted by Godhe et al. (2019) and Toquero (2021), warrants further examination. Although these terms are often used interchangeably, understanding their nuances is essential for developing effective teaching strategies that cater to diverse learners. A comparative debate on the effectiveness of various accommodations versus modifications can enrich the conversation around personalized learning, offering educators actionable strategies for addressing similar challenges.

Lastly, the evolution of the traditional classroom environment into a virtual setting necessitates a critical examination of the measures used to assess educational success. As Fraser (2018) notes, traditional criteria may not adequately reflect the realities of virtual learning environments, particularly for students with disabilities. The adaptation of evaluation methods to suit online platforms should be further examined to ensure they meaningfully capture student progress, engagement, and well-being.
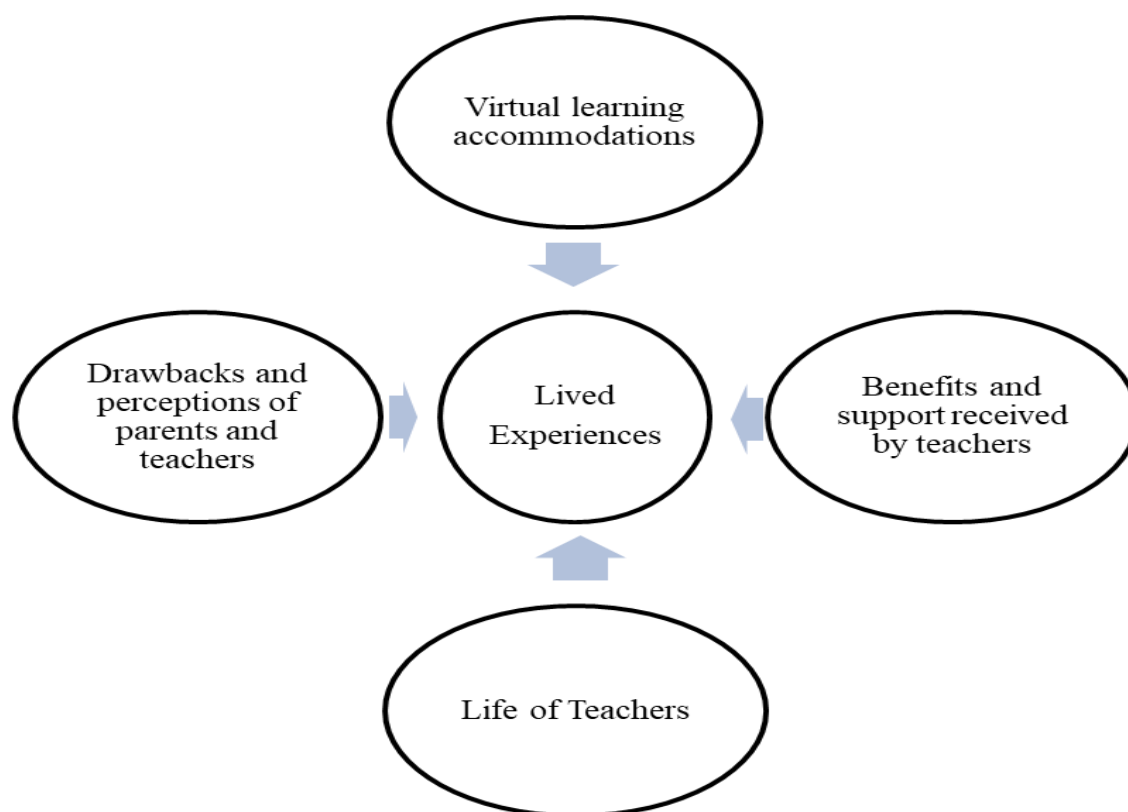
The researcher conducted in-depth interviews with selected teachers to explore their experiences with virtual learning, focusing on accommodations, benefits, support received, and challenges faced during this transition. The interviews aimed to capture the phenomenon from the participants' perspective, drawing on their everyday lives, with the data transcribed verbatim to ensure accuracy. For Arabic-speaking participants, an interpreter provided precise translations to avoid discrepancies. The study focused on teachers' emotional responses and pedagogical strategies, particularly about students with intellectual disabilities, examining how teachers engaged and motivated student participation in virtual settings. Additionally, it discusses the technological tools available and the necessary support systems for teachers to effectively address the challenges associated with virtual learning for these students.

Ethical Considerations

The researcher sought permission to conduct the study by sending a formal request letter to the principal. This study aimed to gather input from special education expatriate teachers in Bahrain to answer the research

question through phone interviews using WhatsApp and school email. The participants were interviewed at their homes, schools, or any other preferred location. In this study, three participants were selected: two underwent interviews, and one provided a written response due to challenges in communicating in English. This approach facilitated a comprehensive examination of diverse perspectives on the experiences of teachers working with students with intellectual disabilities.

Preliminary analyses conducted during the data collection indicated that thematic saturation was achieved, as no new themes emerged following the interviews and written responses. The participants were purposefully chosen to capture a range of experiences, enhancing the depth of the collected data. The iterative process of data collection and analysis allowed for real-time adjustments, ensuring that the sample size was sufficient to address the research questions without redundancy. Ultimately, this methodology not only strengthened the credibility of the findings but also adhered to best practices in qualitative research.

Statement of the Problem

The primary goal of this research was to conduct a transcendental phenomenological investigation into the lived experiences of teachers working with children with intellectual disabilities in virtual learning systems within selected SPED classes in the Kingdom of Bahrain. Specifically, it sought to answer the following questions:

1. How do teachers and parents perceive the accommodations used in teaching students with intellectual disabilities within a virtual learning system?
2. What are the benefits and drawbacks of teaching students with intellectual disabilities in a virtual learning environment?
3. What motivates Special Education Teachers to continue teaching students with intellectual disabilities in a virtual learning environment?
4. How does accommodating students with intellectual disabilities affect the daily routine of teachers in the virtual learning system?

METHODOLOGY

The researcher employed a transcendental phenomenological design to explore the experiences of special education teachers accommodating children with intellectual disabilities in a virtual learning platform. Utilizing unstructured interviews conducted in both English and Arabic, along with document analysis and visual recordings, the study aimed to identify trends and evaluate the effectiveness of various teaching accommodations. This approach emphasized individual experiences, allowing for a deeper understanding of teachers' technological knowledge and pedagogical strategies. Despite the rich existing literature, gaps remain regarding the impact of cultural differences and social-emotional factors on the implementation of virtual learning for students with disabilities. Challenges in language proficiency and age-related communication barriers were noted as potential limitations in articulating experiences. Ultimately, the phenomenological approach facilitated a comprehensive examination of how special education teachers integrate technology into their instructional practices, providing valuable insights into their educational proficiencies and the dynamics of virtual learning environments. Data collection methods included in-depth interviews, focus group discussions, and classroom observations, used to enhance the findings and capture both verbal and non-verbal expressions of the teachers' experiences.

RESULTS AND DISCUSSIONS

This study aimed to describe the lived experiences of special education teachers during the pandemic quarantine period, particularly in the context of teaching. The data analysis for this research was conducted to identify emergent themes and patterns related to the study's primary research question and subsidiary topics. While the literature offers a framework for understanding the factors influencing special education teachers' self-efficacy with instructional technology, little is known about these factors in a crisis, such as the shift to remote teaching during the COVID-19 pandemic (Morris et al., 2017).
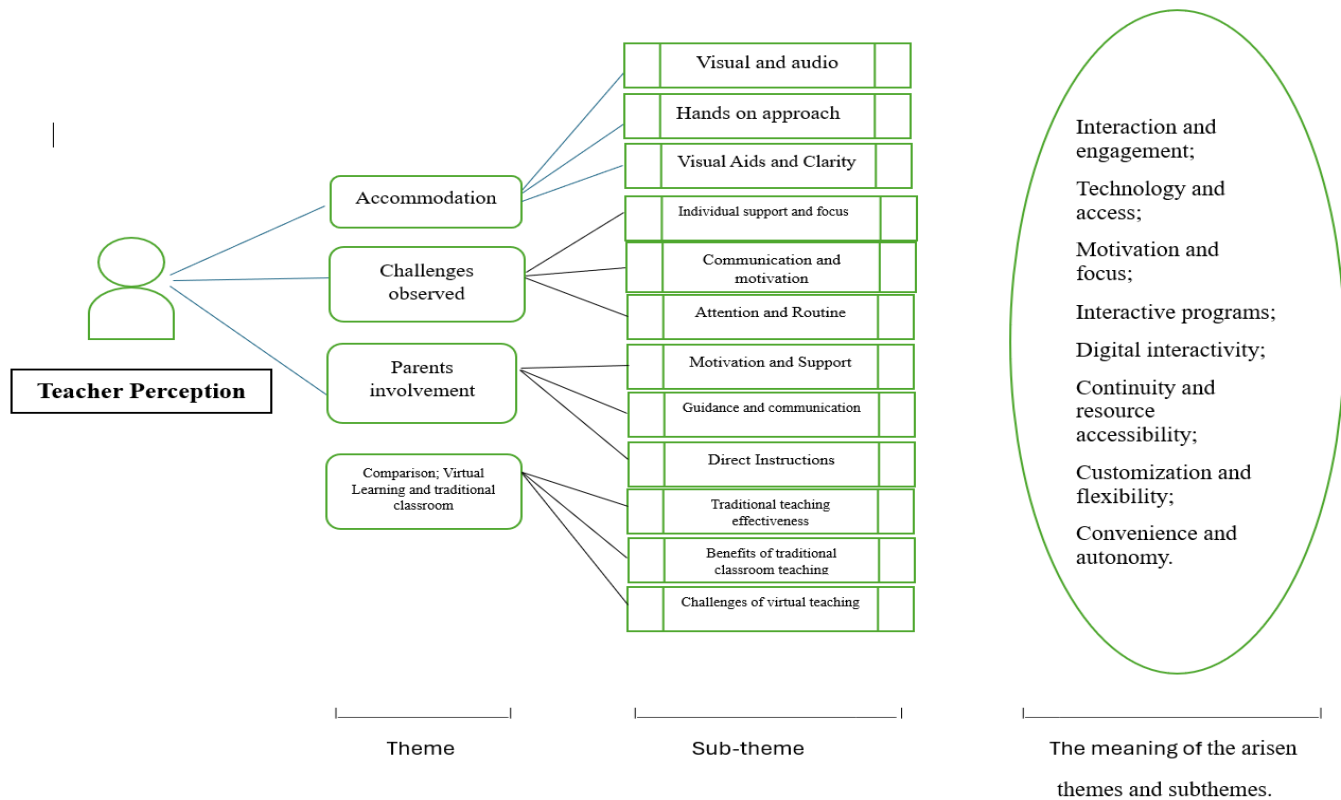
Diagram 1: Teacher's Perceptions

Accommodation and Challenges. In this context, teachers made thoughtful assessments of the necessary adjustments required for a virtual learning environment tailored to children with intellectual disabilities. Analysis of the gathered data indicated that two teachers emphasized the importance of incorporating clear and consistent visual and auditory elements to enhance student focus during instruction. The following statement reflected this:

"Internet quality - the availability of a computer - a tablet computer - a room or a private place without visual and audio interference" - Participant 1

"Visual instructions for a task or actions may also aid students with intellectual disabilities in a virtual learning environment" - Participant 3

Additionally, a participant proposed using visual aids that enhanced student attention by providing clear cues to guide focus through a hands-on approach rather than relying solely on verbal instructions in a virtual setting.

"For students with learning disabilities, a hands-on approach is a beneficial accommodation, as they learn best when the information presented is realistic and visible." - Participant 2.

According to Baglama et al. (2019), the combination of computer-aided training with visual and aural materials, along with educational games, was effective in engaging students and maintaining their attention for extended periods. This comprehensive strategy not only enhanced student engagement but also facilitated quicker and more lasting learning experiences, particularly addressing the unique needs of students with intellectual disabilities.

"Continuous motivation- continuous follow-up- providing individual support" - Participant 1

This perspective, expressed by a participant, illustrates the broader theme of challenges faced by teachers accommodating students with intellectual disabilities in a virtual learning environment.

Parental Involvement. Developing personalized learning experiences presented significant challenges within the virtual learning environment, as educators aimed to customize accommodations for each student in accordance with the requirements outlined in their individualized education plans (IEPs). The educators shared insights on parental engagement in facilitating accommodations for children with intellectual disabilities in a virtual setting. Notably, the participants' responses emphasized this collaboration:

Participant 1 stated, "Continuous motivation and follow-ups that will provide individual support."

Participant 2 noted, "Parents should provide the proper guidance needed and communicate with the teachers regularly to understand how they can assist their child with specific tasks or activities."

Participant 3 emphasized, "Provide instruction to their child."

"Parent should provide proper guidance needed and communicate with the teachers regularly to know how they can help their children in a particular task or activity" - Participant 2

These responses underscored the critical role of parental involvement in supporting students' learning in the context of virtual education. The study by Balatucan (2022) highlighted the importance of communication and teamwork as essential skills in the twenty-first century. Therefore, collaboration among parents and teachers was vital for the success of teaching and learning processes.

Comparison of Virtual Learning and Traditional Classroom. Based on the findings, special education teachers articulated their strategies for adapting to evolving classroom dynamics by developing new routines and behaviors. As noted by Balatucan (2022), once established, routines empowered students to perform daily tasks with minimal guidance from instructors. This empowerment not only enhanced learning opportunities for students but also enabled teachers to allocate more time to instruction. The collected data indicated that special education teachers employed adaptive practices, including coping mechanisms, to successfully establish new routines and implement methods and approaches that were beneficial for both teaching and learning. This adaptability was evident in the teachers' responses.

"Online learning allows greater freedom. Students can select a comfortable location of his or her choice. However, it lacks the traditional study environment, such as physical class. And the students are easily sidetracked. Aside from that, students require far more support and feedback in an online environment than they would in a regular course. Physical classes, on the other hand, provide a great environment for learning. It promotes successful social engagement with peers. Students with intellectual disabilities, in my opinion, are best taught in small groups or even one-on-one in a traditional classroom setting." Participant 3

As stated by Balatucan (2022), the increased difficulty and complexity of teaching and managing students with intellectual disabilities is emphasized in light of evolving approaches and modalities. Despite these challenges, educators had the opportunity to gain valuable experiences and knowledge during the pandemic. Their enhanced proficiency in using digital devices, their ability to design and implement alternative solutions, and an increased sense of collaboration among colleagues were expected to contribute to their ongoing professional development significantly. This demonstrates that teachers are willing to adapt to the dynamics of the virtual learning environment, despite their experiences showing that traditional classrooms are generally more effective for students with intellectual learning disabilities.

The research highlights the accommodations and challenges teachers face in adapting virtual learning environments for students with intellectual disabilities. Teachers emphasized the need for clear visual and auditory elements to help maintain student focus, with one participant noting the importance of providing hands-on approaches and visual aids to enhance engagement. Furthermore, parental involvement was identified as critical for supporting individualized learning experiences, as parents were encouraged to communicate regularly with teachers to assist their children effectively. The study also compared virtual learning to traditional classroom settings. It revealed that while online learning offers flexibility, it often lacks the structured environment conducive to social engagement and requires more support for students. Despite the challenges posed by virtual modalities, teachers reported gaining valuable skills in using technology and

collaborating with colleagues, indicating a willingness to adapt and enhance their professional development for better educational outcomes.
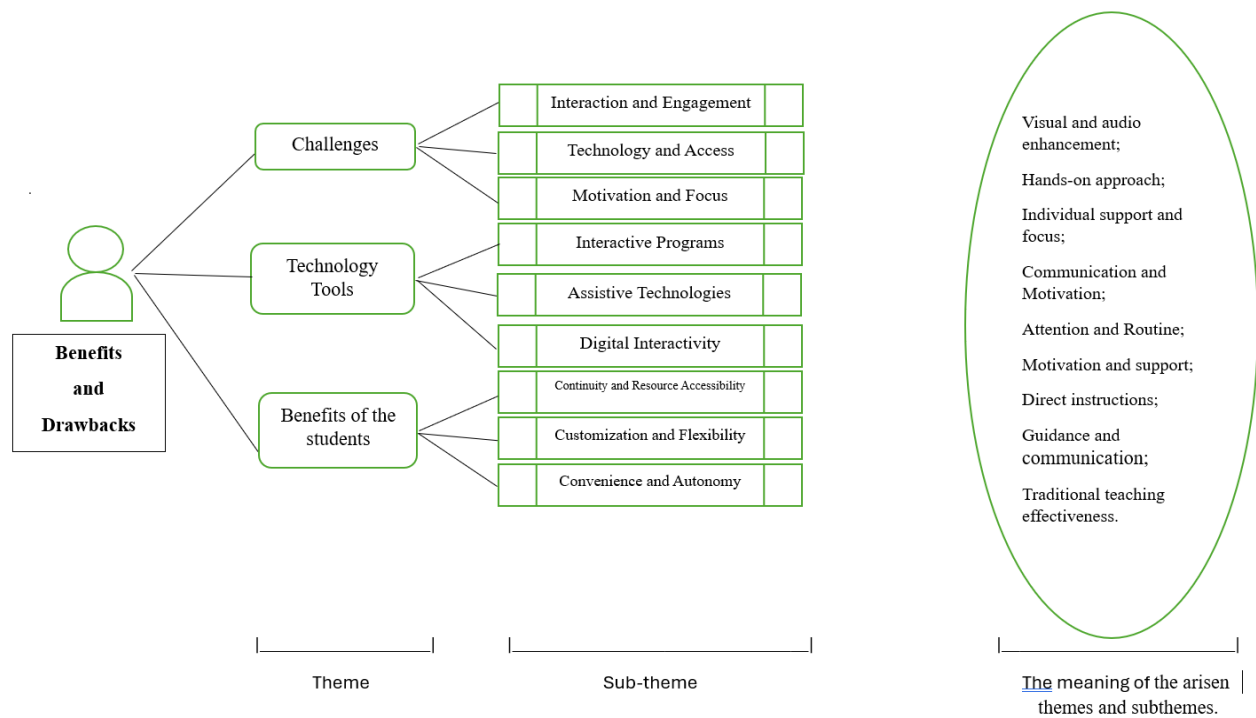

Diagram 2: Benefits and Drawbacks

Challenges. Based on the gathered data, teachers highlighted the challenges of instructing students with intellectual disabilities in a virtual setting. The teachers recognized that insufficient support during quarantine-induced remote teaching created significant difficulties in effectively educating this population. A common concern was the tendency of students to become easily distracted, especially during extended periods of sitting. These challenges were conveyed through the following statements:

"Sit in front of the camera and interact" - Participant 1.

Additionally, special education teachers voiced concerns about student participation, as well as the widespread reliance on internet access and computer skills.

"Both students and teachers may face different challenges in a virtual environment. Some of the issues are technology issue as not all students have access to device such as computer or tablet. Another one is the internet connectivity which is the common issue and computer literacy." - Participant 2.

Technology. As highlighted by Aslan et al. (2018), the collaborative use of technology in both general and special education settings is significant; these technologies are commonly referred to as "assistive technologies" (AT). From a broader perspective, assistive technology includes various tools aimed at aiding individuals with special needs, thereby improving their quality of life and promoting more effective functioning. This encompasses any technology, equipment, systems, or items designed to assist, improve, and maintain the daily living skills of individuals with exceptional needs. This focus on assistive technologies is evident in the following responses from the teachers.

"Using special programs that can be used to include interactive sounds and movements." - Participant 1.

"Nowadays, there are a lot of available technology that can help to enhance the learning experience for students with intellectual disabilities. There are now technologies that can help them to read, communicate through pictures support and comprehend written information via text-to-speech apps." - Participant 2.

Benefits. Teaching students with intellectual disabilities in a virtual setting offered several advantages. As noted by Schuck & Lambert (2020), numerous studies have identified potential benefits of distance learning for these students. For instance, the availability of unrestricted access to course materials facilitated material repetition, allowing students to view demonstration videos multiple times. Additionally, the technology used in online learning provides learners with auditory and visual features, thus enhancing the overall educational experience.

"Technology is utilized in education to improve communication, support daily activities, and promote learning. Word recognition, numeracy, spelling, and even social skills can all benefit from computer-assisted training for students with intellectual disabilities." - Participant 3.

Teachers faced significant challenges in instructing students with intellectual disabilities in a virtual setting, primarily due to insufficient support during remote teaching necessitated by the quarantine. Common issues included students becoming easily distracted during prolonged sitting and concerns regarding participation, internet access, and computer proficiency. Participants noted that both students and educators encountered various technological challenges, including limited access to devices and connectivity issues. Despite these obstacles, the use of assistive technologies emerged as a crucial tool for enhancing learning experiences, as they can improve communication and daily functioning for students with special needs. Teachers highlighted the advantages of virtual learning, including unrestricted access to course materials that enabled material repetition and the incorporation of auditory and visual features that catered to diverse learning styles, ultimately enriching the educational experience for students with intellectual disabilities.
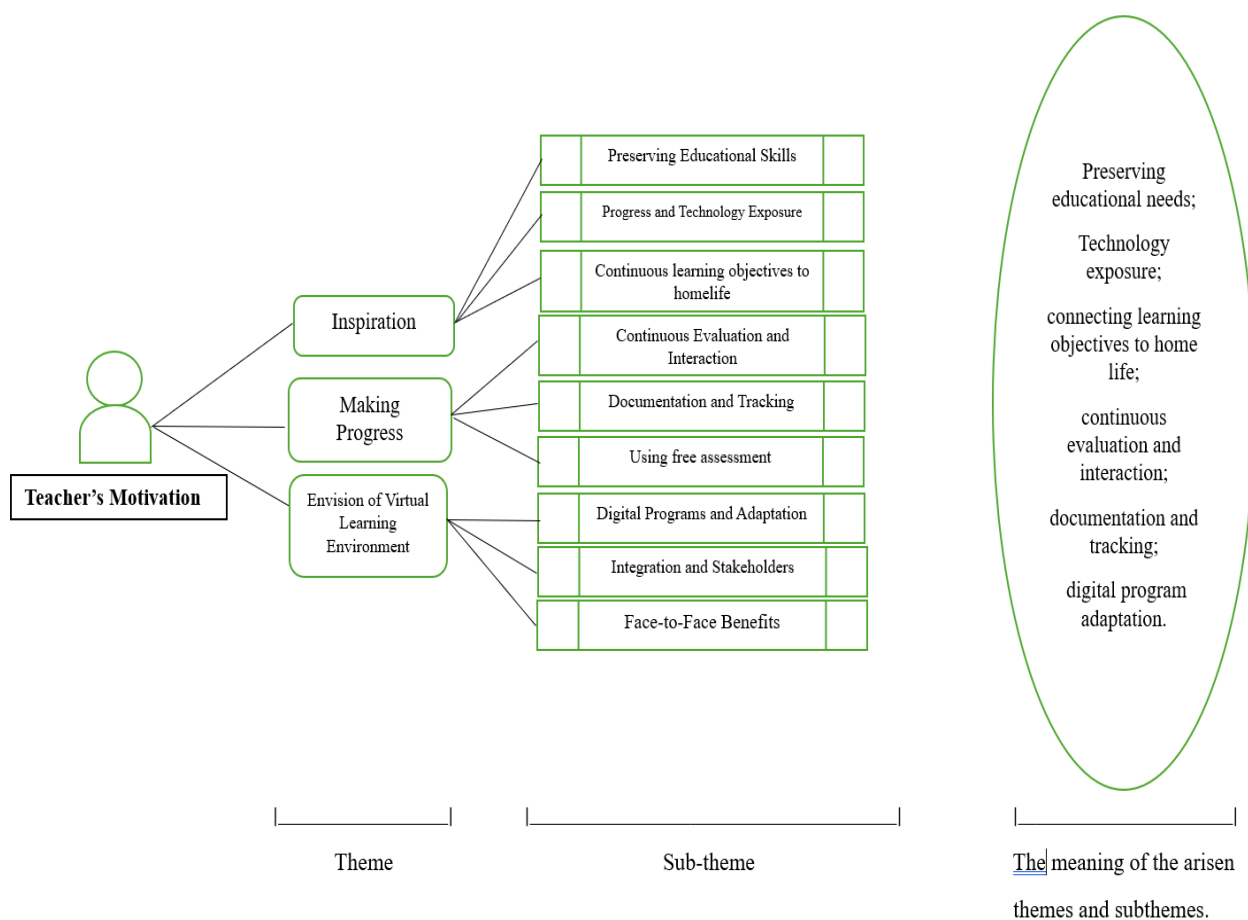

Diagram 3: Teacher's Motivation

Inspiration. When it comes to teacher motivation, it highlights various approaches that teachers use to stay motivated despite the challenges they encounter while educating students with intellectual disabilities in a virtual learning environment. Even in the face of difficulties during the pandemic, special education teachers remained dedicated to inspiring their students with intellectual disabilities in this setting. Two participants articulated:

"It gave them exposure to use technology. Whenever I saw progress, whether small or significant, it was already a big deal for me as a special education teacher. Teaching these students in a virtual learning system could be quite challenging, but in the end, it was all worth it." - Participant 2

Another participant noted,

"Connecting learning objectives to how life inspired me to continue teaching students in a virtual environment." - Participant 3

According to Mohamed (2018), teachers were more inclined to adopt technology when they perceived it as relevant to their regular teaching responsibilities. Although the integration of technology was not inherently a part of teachers' daily routines, the necessary adjustments in various personal, organizational, and instructional practices offered significant benefits. Ultimately, these adjustments increased teachers' effectiveness and enhanced students' learning. Moreover, when educators regarded technology as a crucial asset, they were better equipped to meet the diverse demands of their students in the evolving educational landscape.

The results led teachers to realize that when choosing technology for students with intellectual disabilities, it was imperative to identify students' needs and learning outcomes, investigate available technological options, make informed decisions, create opportunities to integrate technology with other instructional activities, and track the implementation and impact of technology on students' learning.

Making Progress. As articulated by Tartavulea (2020), delivering high-quality special education services while adhering to various special education schedules proved challenging, even under optimal conditions. The data collected supports that teacher consistently monitored students' progress based on the activities they implemented. Teachers utilized a free application as an assessment tool to evaluate students' levels of understanding. This application featured different levels and types of questions, enabling teachers to ascertain whether students comprehended the lesson material. Additionally, traditional documentation practices were employed to track students' progress during each session.

"It is important to regularly and early monitor students; progress. Additionally, in order to track students development, schools need to have access to online performance data." - Participant 3.

Envisioning a Virtual Learning Environment. New technologies, such as artificial intelligence, augmented reality, and virtual reality, are poised to shape the trajectory of technological evolution in special education. These advancements aim to offer instructors and students more opportunities to personalize their learning activities, along with innovative and creative methods for learning and engagement, thus fostering their development.

"Teachers can use personalized learning strategies in a virtual setting to improve instruction in the classroom. The core of technical advancements in special education will be new technologies such as artificial intelligence, augmented reality, and virtual reality. This, in my opinion, facilitates the development of both teachers and students by providing fresh, creative approaches to learning and connecting, as well as by giving students more chances to design their own learning activities."- Participant 3.

Despite the challenges presented during the pandemic, special education teachers remained committed to motivating and inspiring their students with intellectual disabilities in a virtual learning environment. Participants noted that witnessing any progress, no matter how small, served as a significant motivator in their teaching efforts. They emphasized the importance of integrating technology into their teaching practices, as it not only made lessons more relevant but also enhanced their effectiveness in addressing students' diverse needs. Teachers actively monitored student progress using assessment tools and traditional documentation methods, recognizing the importance of tracking development to ensure a high-quality education. Looking ahead, advancements in technology, such as artificial intelligence, augmented reality, and virtual reality, are anticipated to transform special education by providing more personalized learning opportunities and innovative approaches to engagement, ultimately supporting growth for both teachers and students in the evolving educational landscape.
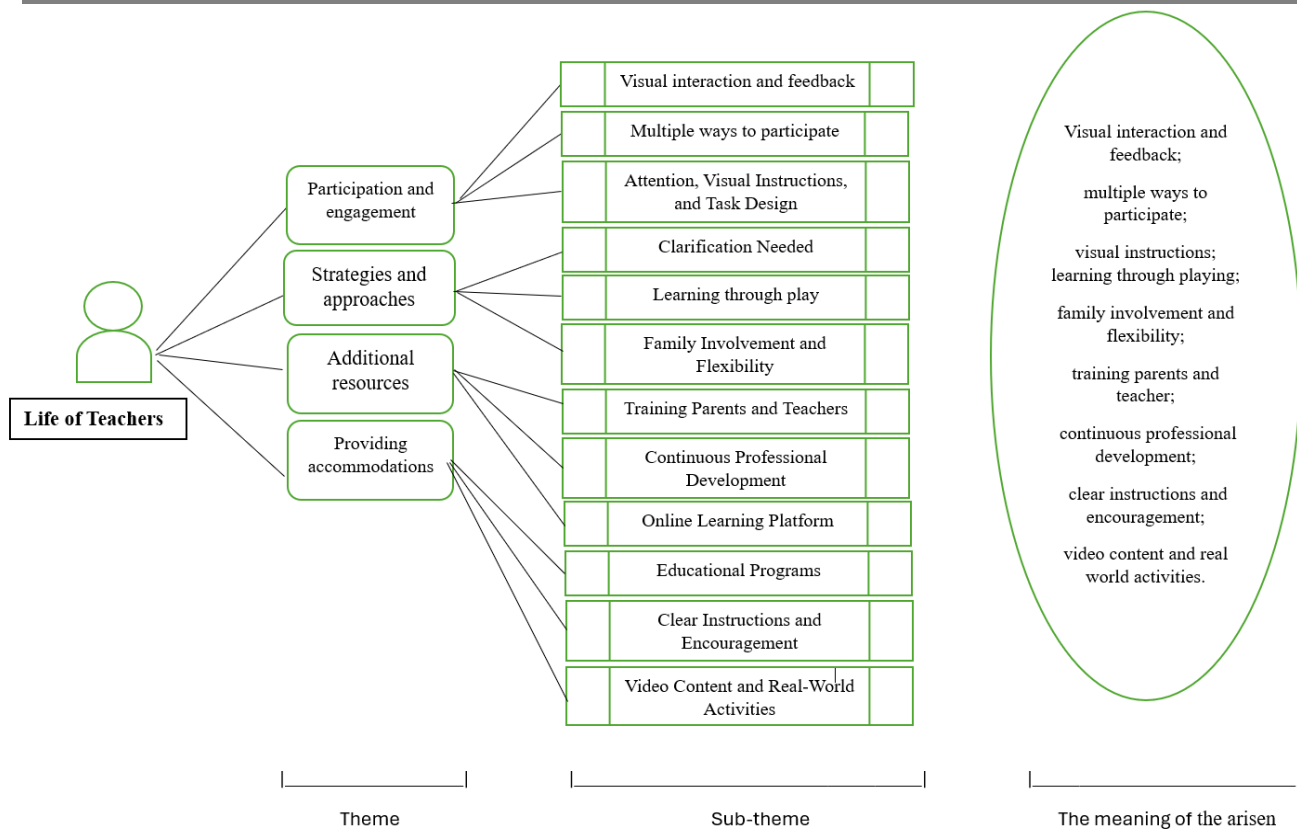
Diagram 4: Life of Teachers

Participation and Engagement. As noted by Balatucan (2022), many special education teachers faced challenges in monitoring and analyzing students' learning during remote instruction. The information suggests that teachers' lives during the quarantine period had a significant impact on the learning development of children with special needs due to the limited opportunities for in-person student-teacher interactions. One participant's response exemplified this:

"Ensuring that students with intellectual disabilities can fully participate and engage in virtual learning activities by providing multiple ways of students to participates in learning and by letting them to demonstrate what they have learned. We can also provide multiple ways to engage by ensuring all resources and services and strategies accessible to individuals with wide variety of disabilities." - Participants 2.

One piece of evidence from Kong & Thompson (2021) addressed the challenges associated with developing and strengthening connections with children who have special needs, particularly those with intellectual disabilities. It emphasized that these children often learn through body language, eye contact, and other forms of face-to-face interaction. This evidence demonstrates that teachers working with students with intellectual disabilities in virtual learning environments require a multifaceted approach. Customizing resources to meet the specific needs of both teachers and students enhances the inclusivity and effectiveness of the virtual learning experience for students with intellectual disabilities.

"Prior to starting to converse with kids, ensure you have their full attention. You can make a gesture or say this aloud. For certain children, visual instructions regarding a task or behavior may be helpful. Assign tasks based on the student's current comprehension level to ensure success. Furthermore, it may be more beneficial to assign fewer activities with more time for students to learn and rehearse them than to assign numerous tasks with limited opportunities for practice." - Participant 3.

Strategies and Approaches. Baker (2020) identified three distinct stages that teachers followed to enhance communication, capture students' attention, and improve instruction during the quarantine period. The first stage involved establishing contact, during which teachers needed to ascertain their students' academic levels. The second stage focused on creating routines, allowing students to understand expectations while

participating in virtual classes. Finally, the third stage entailed transitioning to academic content. During this stage, teachers, having successfully implemented the first two steps, facilitated a smoother flow of lessons within the virtual platform. This suggests that students with intellectual learning disabilities require explicit instructions and routine implementation to facilitate a smooth transfer of learning.

Furthermore, the participants emphasized that utilizing approaches or strategies that promote learning through play led to positive outcomes in the learning processes, as noted by Tartavulea et al. (2020).

"Either in traditional or virtual learning, the effective approaches or strategies for me involved allowing students to learn through play. This approach enabled students to enjoy the tasks or activities while simultaneously acquiring knowledge through these strategies."- Participant 2.

"Prior to starting to lecture or converse with kids, be sure you have their whole attention. You can make a gesture or say this aloud. For certain children, visual instructions regarding a task or behavior may be helpful. Assign tasks based on the student's present comprehension level to ensure success. Furthermore, it might be more beneficial to assign fewer activities with more time for pupils to learn and rehearse them than to assign lots of tasks with little opportunity for practice" - Participant 3.

The study revealed several major themes, including the need for clear communication and the necessity for specific accommodation. Participants reported a significant improvement in student involvement once these adjustments were implemented. According to one participant,

"When I employ visual aids, my students appear more attentive and willing to participate." Participant 2

Additional Resources. By facilitating access to ongoing professional development, schools supported teachers in alleviating the burden of independently developing accommodations. According to McGinnis (2023), professional learning communities provide opportunities for collaboration, enabling educators to share their experiences and strategies for teaching and problem-solving. This collaborative environment empowered teachers to exchange effective methods for supporting students, ultimately benefiting students with disabilities in a virtual learning context.

"In my own opinion, it would be a great help if the teachers are receiving a continuously training or professional development to enhance their skills in creating a teaching methodology and strategies that can be useful during virtual learning." Participant 2.

As teachers sought help from their colleagues, they cultivated a community where shared experiences and strategies enriched the educational experience for all students.

Providing Accommodations. These results suggest that incorporating targeted strategies may improve the learning experience of individuals with intellectual impairments in virtual settings. Additionally, one participant noted that instructions should be clear and specific, incorporating visual aids and real-world activities that utilize available resources and instructional materials to facilitate understanding of the lesson.

"Yes, it is important to clarify if the students understand the activity or the lesson." Participant 1.

"Instructions should be clear, specific and you may include visual instructions so students and parents can easily follow through. Giving encouragement to help the students to be more motivated and may include their interest as a reward and proper guidance." Participant 2.

Based on the data gathered from the interviewed participants, they emphasized the importance of receiving clear instructions regarding their tasks. They suggested that explicit guidance, combined with a defined timeframe, would be advantageous. One participant expressed this viewpoint by stating,

"Being specific and clear in your instructions helps a lot. Use visual instructions and provide encouragement and guidance when needed." – Participant 2.

The study revealed that special education teachers faced significant challenges in monitoring and engaging students with intellectual disabilities during remote instruction, primarily due to limited opportunities for in-person interactions. Teachers emphasized the importance of providing multiple engagement strategies to ensure students could fully participate in virtual learning, highlighting the need for customized resources that cater to individual needs. Effective communication and the establishment of routines were identified as critical for capturing students' attention and facilitating smoother transitions to academic content. Participants noted that incorporating play-based learning strategies yielded positive results, making learning enjoyable while enhancing knowledge acquisition. Additionally, access to ongoing professional development and collaboration among educators was vital for sharing best practices and alleviating the challenges of creating adequate accommodations. Teachers recognized that clear and specific instruction, combined with visual aids and encouragement, significantly improved student participation and understanding, ultimately enhancing the learning experience for students with intellectual disabilities in virtual settings.

CONCLUSION

The study underscored several key findings regarding the effectiveness of virtual learning environments for students with intellectual disabilities, revealing significant implications for teachers and policymakers. Among the major challenges highlighted were the difficulties teachers faced in providing necessary accommodations within online platforms, which were often less suited to the diverse needs of their students compared to traditional classrooms.

To improve the virtual learning experience, legislators and educational institutions need to consider the following recommendations:

1. Investment in Technology and Resources: Governments should prioritize funding to enhance internet connectivity and expand access to devices for students with intellectual disabilities. This includes offering subsidies or grants to families who may struggle to afford the necessary technology for home learning.
2. Development of Tailored Online Training Programs: Educational institutions should develop specialized training for teachers to effectively utilize virtual tools and platforms that support students with disabilities. This training should emphasize the creation of tailored teaching strategies that address the unique needs of these students.
3. Facilitating Collaboration and Communication: Schools must promote open communication among teachers, families, and support staff. Creating a structured communication framework enables educators to gather valuable feedback from families and provide timely updates on students' progress and needs.
4. Utilizing Online Assessment Tools: Educators should be equipped with practical online assessment tools that enable real-time monitoring of student progress. Investing in or developing user-friendly platforms that address the specific needs of special education will enhance the ability to track progress and tailor interventions accordingly.
5. Encouraging Flexible and Inclusive Teaching Approaches: Legislators should promote policies that support flexibility in teaching methods and curricula. This includes advocating for the implementation of Universal Design for Learning (UDL) principles to provide multiple means of engagement, representation, and action or expression for all learners.
6. Creating Support Networks: Building collaborative networks within special education departments can foster the exchange of best practices, resources, and emotional support among educators. These networks can reinforce the importance of teamwork in addressing the challenges posed by virtual instruction.

By implementing these strategies, governments and educational institutions can better support teachers in delivering compelling virtual learning experiences for students with intellectual disabilities. This will not only improve educational outcomes but also foster inclusivity and equity in education, ensuring that all students can thrive in a rapidly evolving digital landscape.

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