

INNOVATIVE TEACHING APPROACHES OF TEACHERS IN TEACHING STUDENTS WITH SPECIAL NEEDS: A CASE STUDY

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ABSTRACT

This case study explores innovative teaching approaches used by educators in teaching students with special needs (SNED), examining their impact and the challenges encountered during implementation. Through thematic analysis, four key approaches emerged: multi-sensory instruction, differentiated instruction, technology integration, and interactive play-based instruction. These approaches were found to significantly influence SNED by enhancing engagement, improving learning outcomes, and promoting overall well-being. Nevertheless, challenges such as resource limitations, technological constraints, and the imperative for sustained creativity and engagement were identified. Recommendations entail prioritizing investment in educator resources and training, fostering collaboration among stakeholders, and addressing identified challenges through targeted interventions and policy initiatives. Future studies should prioritize longitudinal research to assess long-term effectiveness, delve into tailored instructional strategies for specific SNED subgroups, examine stakeholder perspectives, and conduct comparative analyses across diverse educational settings and cultural contexts. By addressing these recommendations, we can advance inclusive education practices and ensure equitable opportunities for all students with special needs. This study underscores the significance of innovative teaching approaches in SNED and calls for continued support and resources to overcome challenges and foster inclusive educational environments.

Keywords: Special Needs Education, Innovative Teaching Approaches, Thematic Analysis, Challenges in Implementation, Inclusive Education

1. INTRODUCTION

Inclusion and equity are elements to transcend the obstacles that prevent prospering towards inclusive education systems, where the student is not limited by their differences or diversities in which they are (UNESCO, 2020). In the realm of special needs education, the landscape is evolving rapidly, driven by an increased recognition of diverse learning needs and a commitment to inclusive education. Addressing learning disabilities presents a significant challenge for classroom teachers (Kayer and Genteno, 2009). Obani (2006) estimated that approximately fifty percent of students with special educational needs are grappling with learning disabilities. Failing to address these challenges could widen the gap between the potential and actual achievements of students with learning disabilities, impacting their future lifestyles (Siyanbola & Osobisi, 2013). Sadly, K-12 schools marginalize students with special needs (Kubota, 2015).

Furthermore, in an effort to make schools more inclusive, DepEd order no. 44 series of 2021 improved the atmosphere for all students to collaborate, regardless of their problems or differences. In adherence to Republic Act No. 10533 or the Enhanced Basic Education Act of 2013 Section 8 or the Inclusiveness of Enhanced Basic Education designed to address learners' physical, intellectual, psychosocial, and cultural needs, this will guarantee that students with disabilities are included in mainstream or general education classes. To ensure that all sorts of pupils learn together in a welcoming setting, this can be achieved through recognizing, accepting, and respecting diversity (DepEd, 2022). It is most likely that early and continuous inclusion will yield the best outcomes. Primary school is the starting point for inclusion, and it must continue throughout the basic education curriculum. According to Benigno et al. (2018), there is a direct correlation between students' equitable access to education and the vital role that schools play in fostering a feeling of shared belonging to a friendly community of people. Even while terms like social inclusion, integration, and involvement are rarely used directly, a lot of individuals nowadays believe that student engagement is a crucial component of inclusion. However, aspects related to these core ideas—such as peer relationships, group engagement, accepted perception, and stronger ties—are considered important in the majority of the literature on the subject.

Positioning itself at the forefront of advancing special needs education, the research will address the existing knowledge gap concerning the practical application and impact of innovative teaching approaches. Through the conduct of a case study, this research will provide tangible insights into the real-world effectiveness of innovative pedagogies in diverse special needs contexts. The study anticipates contributing not only to academic discourse but also to offering actionable

recommendations, serving as a catalyst for the continued evolution of instructional practices. The overarching goal is to ensure that special needs education stays at the forefront of innovation and remains responsive to the unique needs of every learner.

1.2. Purpose of the Study

The purpose of this study is to investigate and understand the innovative teaching approaches employed by teachers in educating students with special needs. Through a detailed examination, the study aims to uncover the various methods teachers use and their impact on Special Needs Education (SNED). Additionally, the research seeks to identify and explore the challenges faced by educators when implementing innovative teaching approaches in the context of Special Needs Education. This case study aims to provide valuable insights that can inform educational practices, contribute to the improvement of teaching strategies, and enhance the overall learning experience for students with special needs.

1.3. Research Questions

This study aimed to explore the innovative teaching approaches of teachers in teaching students with special needs. The following questions were considered for a thorough discussion:

1. What are the innovative teaching approaches in teaching SNED?
2. What is the impact of these innovative teaching approaches in teaching Special Needs Education?
3. What challenges do educators encounter when implementing innovative teaching approaches in teaching Special Needs Education?

1.4. Review of the Related Literature

Learning disabilities, encompassing difficulties in receiving, processing, analyzing, or storing information, impede affected learners from acquiring knowledge at a pace commensurate with their peers; the presence of specific learning disabilities, including hyperactivity and attention disorders, can exacerbate the challenges faced by teachers in inclusive classrooms aiming to accommodate individual learning paces (Siyanbola & Osobisi, 2013). These manifest in various forms, including difficulties in spelling, writing, mathematics, and behavioral issues such as attention deficits, hyperactivity, or hypoactivity. Students with special needs face difficulties in their academic pursuits compared to their peers in mainstream classrooms, struggling to keep up with the curriculum. These students may encounter challenges in listening, speaking, reading, writing, and performing mathematical calculations, contributing to their difficulties in conventional classroom settings (Dafwat, 2013). One of the most prevalent challenges among children with learning disabilities is their struggle with reading, as highlighted by Pierangelo and Giuliani (2006) and Lerner and Kline (2006), with up to 80% of these children facing difficulties in this crucial skill.

With such, students with special needs often struggle to exert extra effort, maintain attention, or enhance motivation independently; they rely on the support of their classroom teachers to navigate their studies (Oluka & Okorie, 2014). This assistance becomes even more crucial when students with special needs are required to learn subjects like reading in languages other than their mother tongues (Egunjobi, 2013). By prioritizing innovation in K-12 classrooms for students with special needs, skills inequality and skills uncertainty may be diminished (Acharya & Rodriguez, 2021). The impetus for this research stems from the imperative to move beyond conventional teaching methods in special needs education. As the educational landscape advances, it is essential to examine and embrace innovative pedagogical approaches that can cater to the unique learning requirements of students with diverse special needs.

According to Fareo, (2020) Children with special needs have different talents than students in general, curriculum modification, and innovation is critical. Innovative learning environments impact students with special needs positively within their microcosm of the world (Gonzalez et al., 2017). It involves conjuring creative ideas, articulating design solutions, prototyping, and implementation. In K-12 school systems, innovations usually result in increasing K-12 student achievement (Graziano & Navarrete, 2012). Schools can empower communities to share what they believe students need for success and vice versa (Lynn & Parker, 2006). Educators must realize that all learners, especially those with special needs must also experience creative approaches to learning (Robinsons, 2017). This innovative environment is defined as a student-centered, flexible learning environment that fosters both seven essential characteristics and five crucial mindsets (Kariippanon et al., 2019). By fostering innovative spaces, students benefit from diverse ideas, perspectives, and personal achievements (Acharya & Rodriguez, 2021). As students with special needs are centered in the environment, their ability to develop to their full potential is enhanced.

1.5. Theoretical Lens

This study is viewed through the lens of the Transformative Learning Theory of Jack Mezirow (1991). This theory's emphasis on inclusivity and diversity aligns seamlessly with the unique challenges faced by students with diverse learning requirements. By recognizing the transformative nature of learning experiences, Transformative Learning Theory

encourages educators to prioritize not only academic progress but also the holistic development of each student (Christie et al., 2015). The theory's focus on critical reflection is particularly beneficial, as it prompts educators to question traditional teaching methods and embrace innovative approaches that cater to individual needs (Howie & Bagnall, 2013).

Moreover, Gougoulakis & Christie (2012) emphasized that the adaptability and flexibility inherent in the theory are crucial for the context of special education, where personalized learning plans are often essential. Transformative Learning Theory also underscores the empowerment of individuals and their agency in the learning process, fostering a sense of self-efficacy in students with special needs (Newman, 2012). Finally, the theory's practical orientation ensures that its principles can be translated into actionable teaching strategies, making it a comprehensive framework for understanding and enhancing the transformative potential of teaching practices for students with special needs (Taylor, 2007).

Additionally, Social Constructivist Theory is a fitting theoretical framework for investigating innovative teaching approaches for students with special needs. Emphasizing collaborative learning and the co-construction of knowledge within social contexts, the theory aligns seamlessly with the need for interactive and inclusive educational experiences in special education settings. Social Constructivism's acknowledgment of sociocultural factors influencing learning encourages educators to consider the diverse backgrounds, experiences, and learning styles of students with special needs (Akpan et al., 2020). This perspective supports the creation of inclusive learning communities, fostering an environment where both educators and peers actively contribute to knowledge construction (Kapur, 2018). The theory's adaptability and flexibility cater to the individualized approaches required in special education, allowing educators to tailor teaching methods to meet the unique needs of each student Erciyes (2020). Overall, Social Constructivist Theory offers a robust framework that addresses the collaborative, adaptive, and inclusive nature necessary for effective teaching practices in the context of students with special needs.

1.6. Conceptual Flow

The researchers depicted the conceptual flow based on the important milestones in finishing this investigation. The key informants were chosen by the researchers through purposive sampling. Following the selection process, five (5) Special Education Teachers from a Special Needs Education Elementary School were interviewed in-depth by the researchers. Following that, the researchers utilized Colaizzi's approach to examine the data, and then provide their findings along with a discussion of the innovative teaching approaches of teachers in teaching students with special needs. Based on the findings, the researchers suggested implications for theory and recommendations to encourage educational key players to take part in assisting or enhancing the innovative teaching approaches of teachers in teaching students with special needs. Figure 1 shows the conceptual flow of the study.

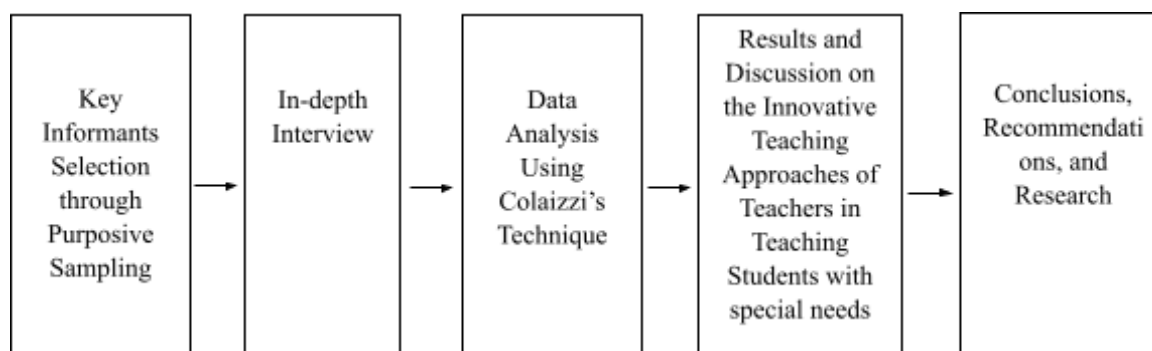


Figure 1. Conceptual Flow of the Study

2. Methodology

2.1. Research Design

A case study was utilized in the investigation of this topic. This case study aimed to comprehensively explore the innovative teaching approaches of teachers in teaching students with special needs. In order to fully explore the complex dynamics, contextual elements, and experiences surrounding the creative teaching approaches used by teachers to instruct students with special needs, a comprehensive case study approach is employed in the qualitative research design (Crowe, Cresswell & Robertson et al., 2011).

2.2. Research Locale

This study was conducted at Don Julian Rodriguez Sr. Elementary School, situated within the San Roque District of the Davao City Division. Don Julian Rodriguez Sr. Elementary School serves as the primary setting for investigating innovative teaching approaches for students with special needs. The choice of this locale provided a specific and focused context within the educational landscape of Davao City, allowing for an in-depth examination of the practices employed by educators in catering to the diverse learning requirements of students in this particular elementary school. The school's unique characteristics, demographic composition, and institutional resources will contribute to a comprehensive understanding of the application of Transformative Learning Theory and Social Constructivist Theory in special education within the local context.

2.3. Sampling Techniques

This study used the purposive sampling strategy to select “information rich” key informants for the key informants’ interview, which included six (6) Special Education Teachers from a Special Needs Education Elementary School. Purposive sampling is a non-random selection strategy in which investigators intentionally choose participants according to particular standards pertinent to the study's goals or question (Black, 2010). It is deliberate and concentrated on incorporating subjects with specific traits, backgrounds, or expertise thought necessary for the research (Saunders, Lewis, & Thornhill, 2012). Informants were selected based on their experience as Special Needs Education Teachers.

2.4. Research Instrument

A researcher-made interview guide was used as the main instrument to describe the innovative teaching approaches of teachers in teaching students with special needs. This study's main theme was guided by its multiple sub-questions. The interview guide was validated and enhanced by three (3) Master Teachers, who were equally competent in their respective field of work, research experts, well-specialized in teaching language, and with backgrounds in Special Needs Education. After this, the validated guide questions were tried out with two Special Needs Education Teachers who were not part of the qualitative sample.

2.5. Data Collection Procedure

The data collection for this investigation was done thoroughly. The first step was to formally request authorization from Don Julian Rodriguez Sr.'s school principal to carry out the study. San Roque District Elementary School, Davao City Division. A formal letter was used for this. Second, research participants received informed consent forms following approval. Third, in-depth interviews were conducted to gather comprehensive data with the primary informants. Fourth, the researchers employed thematic analysis to examine the key informants' replies from the case study. The final step was to tabulate the themes that emerged and present them along with in-depth discussions.

2.6. Data Analysis

The audio and video recordings were transcribed by the research. This required a meticulous procedure to accurately capture the subtleties of the participants' replies by turning spoken words and visual content into written form. Next, Colaizzi's method for analyzing data was applied. In case study research, this methodical technique is frequently used to extract significant insights from qualitative data (Morrow et al., 2015).

Through many readings and open coding, researchers first familiarized themselves with the data in the case study context. To draw attention to trends in the data, key statements were found and theme clusters were created. These topics were classified into groups, which helped to create a thorough account of the situation that was being looked into. The goal of the research was to keep the analysis rigorous and coherent throughout. The accuracy and fidelity of the final results to the particulars of the case study were ensured by comparing them with the original data.

The specifics of the qualitative data analysis are displayed in Figure 2.

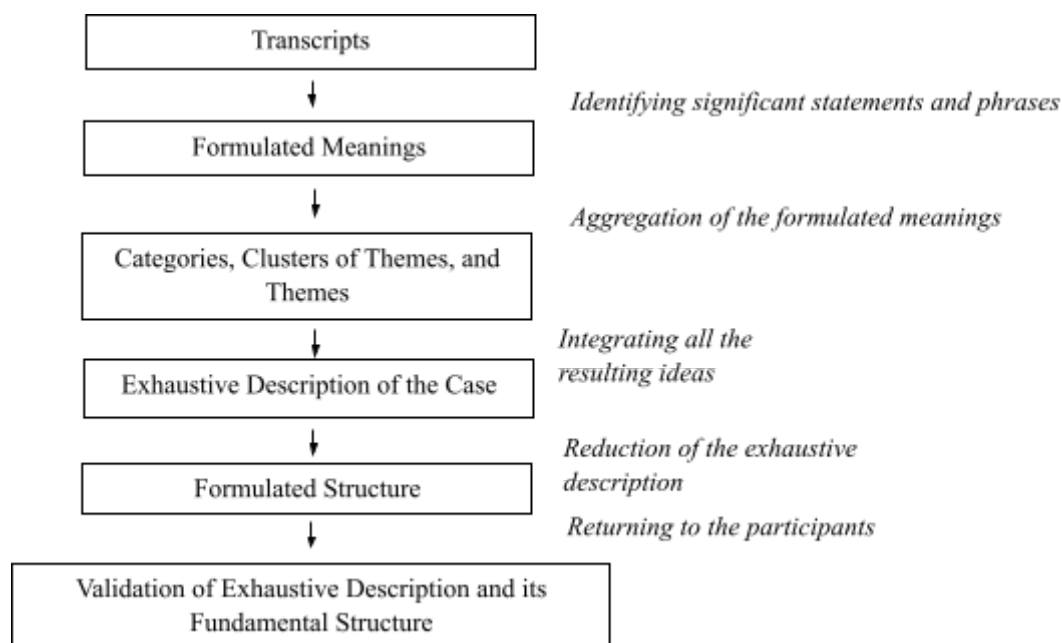


Figure 2. A summary of Colaizzi's strategy for data analysis.

2.7. Ethical Considerations

Ethical issues such as informed consent, confidentiality, fairness, and conflict of interest were carefully considered throughout the research process. One of the most important ethical principles is informed consent, which is a voluntary and thorough process that guarantees participants are fully informed about the research, comprehend the information given to them, and have the right to accept or reject the offer of participation (Conelly, 2014). After providing a thorough explanation of the study methodology, the researchers used in-person meetings and Facebook Messenger to get the participants' consent. By preserving and protecting the participants' names, the confidentiality principle—which is essential to participant protection—was upheld (Arifin, 2018). Respecting participants' convenience during data collection and making sure no exploitation or coercion occurred preserved the ideal of justice, which emphasizes fairness (Orb et al., 2001). Additionally, researchers avoided any personal, financial, political, or academic influence on the study by placing themselves outside of participants' responses in order to ensure objectivity and reduce potential conflicts of interest (Fleming & Zegwaard, 2018).

3. Results and Discussions

This chapter presents the results of the analysis of the interview data. The analysis yields themes, which are then presented. The themes are followed by in-depth discussions that touch on the objectives of the research. We will discuss the topics that arose from the gathered data in this chapter. The history and description of the participants—who were assigned pseudonyms in order to preserve their anonymity—make up the main portion of the results presentation.

3.1. Innovative Teaching Approaches in Teaching SNED

Key themes and core ideas that emerged from the discussion on the innovative teaching approaches in teaching SNED, as shown in Table 1. Four (4) emerging themes namely: *multi-sensory instruction*, *differentiated instruction*, *technology integration*, and *interactive play-based instruction*. The researchers defined these themes, discussed them thoroughly, enriched them with core ideas, and supported them with existing studies and literature.

Table 1. Major Themes and Core Ideas on the Innovative Teaching Approaches in Teaching SNED

Major Themes	Core Ideas
Multi-Sensory Instruction	<ul style="list-style-type: none"> • <i>incorporate hands-on activities, movement, music, and visual aids to accommodate diverse learning styles and sensory preferences – R1</i> • <i>involves all of the child's senses, including touch, smell, hearing, sight, and even taste, to help him become aware of everything around him – R5</i>
Differentiated Instruction	<ul style="list-style-type: none"> • <i>made to accommodate a range of learning requirements and guarantee that every student gets the help they require – R3</i> • <i>adapt teaching methods to the unique needs of students with special needs – R4</i>
Technology Integration	<ul style="list-style-type: none"> • <i>assistive technologies such as screen readers, text-to-speech software, and alternative input devices can facilitate learning and communication for students with disabilities – R1</i> • <i>virtual reality scenarios, or gamified learning experiences – R2</i>
Interactive Play-based Learning	<ul style="list-style-type: none"> • <i>Incorporating games that make them interact with lessons and skills acquisition – R4</i> • <i>Interactive simulations, virtual reality scenarios, or gamified learning experiences – R2</i>

3.1.1. Multi-Sensory Instruction

To improve learning and memory retention, multi-sensory education combines the use of several senses (visual, aural, and kinesthetic) at the same time. By integrating a range of sensory experiences into instructional strategies, this strategy seeks to accommodate a variety of learning preferences and styles. Its main goal is to provide a more thorough learning experience by utilizing a variety of sensory modalities to communicate information.

To specify the multi-sensory instruction, the researchers featured some narratives. R1 revealed that:

“Multisensory education makes use of all three senses—visual, auditory, and kinesthetic—to enhance learning and memory recall. Teachers may incorporate hands-on activities, movement, music, and visual aids to accommodate diverse learning styles and sensory preferences.”

Similarly, R5 shared the same idea as evident in his response below:

“Teaching involves all the senses of the child, like sense of touch, smell, hearing, seeing, and even tasting so that learners will be aware of everything around him.”

In Special Needs Education (SNED), Multi-Sensory Instruction is an extremely helpful and inclusive teaching strategy that is intended to meet the varied learning requirements of students with different skill levels (Obaid, 2013). Teachers can tailor the learning experience to each student's unique learning style and improve memory retention by actively involving the visual, aural, and kinesthetic senses (Thompson, 2011). In SNED, Multi-Sensory education facilitates individualized education using a range of techniques, such as visual aids, hands-on activities, aural clues, and technological integration. It also encourages an inclusive learning environment by addressing sensory processing problems (Lin & Jiar, 2015). All things considered, this strategy is extremely important for encouraging inclusivity and supporting the general development and achievement of kids with special needs.

3.1.2. Differentiated Instruction

Differentiated instruction is a teaching approach that modifies tactics to meet the needs of students with varying degrees of preparedness and learning demands that are innovatively utilized by SNED teachers. It is adjusting the pace,

topic, and level of complexity to each student's abilities and interests while incorporating technology and employing techniques like groups, explicit instruction, scaffolding, and scaffolding (Rachmawati, 2016).

The participants' comments supported and emphasized this, saying as follows:

"Some of the approaches are differentiated instruction, it makes use of scaffolding, explicit instruction, groupings" – R3

"Differentiated instruction combined with flipped classrooms, probes, encouraging self-study, graphics, jigsaws, and teaching is an innovative way to teach social studies." – R4

Differentiated instruction, a key educational approach, is particularly vital in Special Needs Education (SNED), as it recognizes and addresses the diverse learning needs, preferences, and readiness levels of students in a single classroom (Marlina, Efrina, & Kusumastuti, 2019). Tailoring teaching methods and content to accommodate individual strengths, abilities, and interests, differentiated instruction in SNED involves adjusting the pace, depth, and complexity of instruction SNED (Ernest et al., 2011). Stogilos (2018) emphasized that by employing strategies like scaffolding, explicit instruction, groupings, and integrating technology, this method aims to create an inclusive learning environment that nurtures the academic and social growth of all students, irrespective of their abilities or challenges.

3.1.3. Technology Integration

SNED Teachers utilized technology as an approach to sustaining the delivery of the teaching and learning process. It brings valuable benefits for students with diverse needs. An evident innovative approach that supports teachers in teaching students with special needs.

The participants' responses emphasized and reaffirmed this; they said that:

"Using digital tools and resources can increase accessibility and involvement for students with special needs. For students with impairments, assistive technology like screen readers, text-to-speech software, and other input devices can help with learning and communication." – R1

"Virtual reality scenarios, interactive simulations, or gamified learning experiences" – R2

Technology integration in the classroom has significant advantages for students with a range of requirements in SNED (Courduff, Szapkiw, & Wendt, 2016). All people can participate in learning thanks to accessibility-enhancing tools like text-to-speech software and screen readers. Lessons become more engaging when personalized educational applications and interactive tools adjust to each student's unique learning style. Additionally, Michaels & McDermott (2003) highlighted that through user-friendly software, technology accommodates a variety of sensory needs, helps children with disabilities communicate, and promotes independent learning. Virtual classrooms and online resources foster communication between educators, parents, and students, and teachers may effectively evaluate student progress and modify curriculum. For all students, SNED's technological integration essentially delivers a more welcoming, interesting, and customized learning environment (Courduff, 2011).

3.1.4. Interactive Play-based Learning

A theme that arises involves creating a fun and interactive learning environment. This acknowledges the value of play in children's educational experiences and uses it as a strong tool to help them learn new things.

The participants' comments supported and emphasized this, saying as follows:

"Including interactive games with lessons and skill development motivates students to participate and learn" – R4

"Virtual reality scenarios, interactive simulations, or gamified learning environments. Enhancing engagement and comprehension can be achieved by implementing a collaborative and inclusive learning environment where students can actively participate, share experiences, and learn from one another." – R2

Interactive play-based learning is an educational strategy that emphasizes engaging children in hands-on, interactive activities to promote both academic and social development (Hakkarainen & Bredikyte, 2010). This approach recognizes the significance of play in children's learning journeys and leverages it as a potent tool for acquiring new skills and knowledge. Through interactive play, children actively explore, experiment, and collaborate, fostering the development of cognitive, social, emotional, and physical abilities (Cade, 2023). This method often incorporates games, puzzles,

role-playing, and other activities that encourage curiosity, creativity, and problem-solving (Movahedazarhouli, 2018). By making learning enjoyable and participatory, interactive play-based learning not only facilitates the understanding of academic concepts but also nurtures essential life skills and a genuine enthusiasm for learning.

3.2. Impact of Innovative Teaching Approaches in Teaching Special Needs Education

Key themes and core ideas that emerged from the discussion on the impact of innovative teaching approaches in teaching SNED, as shown in Table 2. Three (3) emerging themes namely: *engagement and interactivity*, *positive impact on learning outcomes*, and *enhanced overall well-being*. The researchers defined these themes, discussed them thoroughly, enriched them with core ideas, and supported them with existing studies and literature.

Table 2. Major Themes and Core Ideas on the Impact of Innovative Teaching Approaches in Teaching Special Needs Education

Major Themes	Core Ideas
Engagement and Interactivity	<ul style="list-style-type: none"> • <i>incorporating diverse strategies such as hands-on activities, technology tools, collaborative projects, and multi-sensory experiences to cater to diverse learning styles and make learning more interactive. – R1</i> • <i>Increased engagement fosters higher levels of motivation, participation, and attentiveness, ultimately creating a more positive and inclusive classroom environment for students with special needs. – R4</i>
Positive Impact on Learning Outcomes	<ul style="list-style-type: none"> • <i>consistently associated with improved academic outcomes, with students learning more compared to traditional teaching methods. – R4</i> • <i>Students show increased cooperation and engagement with classroom activities, indicating that the positive impact extends beyond academic achievements. – R2</i>
Enhanced Overall Well-being	<ul style="list-style-type: none"> • <i>improve the inclusive, encouraging, and developmentally appropriate learning environment in SNED classrooms, hence improving the general well-being of the students. – R3</i> • <i>innovative way to enhance overall well-being, demonstrating improvement and development in the special education context. – R5</i>

3.2.1. Engagement and Interactivity

All responses highlight that innovative teaching approaches in Special Needs Education (SNED) classrooms focus on making learning more interactive and engaging. This involves incorporating hands-on activities, technology tools, collaborative projects, and multi-sensory experiences to capture students' interest, fostering higher levels of motivation, participation, and attentiveness.

The participants' responses supported and emphasized this, saying as follows:

“By incorporating hands-on activities, technology tools, collaborative projects, and multi-sensory experiences, teachers can capture students' interest and actively involve them in the learning process. This increased engagement fosters higher levels of motivation, participation, and attentiveness among students, leading to a more positive and inclusive classroom environment.” – R1

“For student engagement, the learners are more cooperative and engaging with classroom activities.” – R4

Innovative teaching practices that incorporate a variety of strategies, including hands-on activities, digital tools, collaborative projects, and multisensory experiences, prioritize engagement and interaction in Special Needs Education classrooms (Drigas & Papanastasiou 2014). These approaches are designed to accommodate the many learning preferences and styles of children with special needs, enhancing the interactivity, relevance, and enjoyment of the educational process (Nind, 2000). The main objective is to create a welcoming and inclusive learning atmosphere in the classroom where students feel more motivated, involved, and attentive, all of which enhance and support their educational experience (Álvarez-Guerrero et al., 2021).

3.2.2. Positive Impact on Learning Outcomes

A common theme across the responses is the positive impact of innovative teaching approaches on learning outcomes. The innovative methods are reported to lead to improved academic outcomes, with students learning more compared to traditional teaching methods. The use of innovative approaches is associated with increased cooperation and engagement in classroom activities.

The participants' responses emphasized and reaffirmed this; they said that:

“In learning outcomes, the learners learn more compared to the traditional teaching method” – R4

“Innovative teaching approaches in SNED classrooms have the potential to create a more engaging, inclusive, and supportive learning environment, leading to improved academic outcomes and overall well-being for students with special needs.” – R2

The idea that innovative teaching strategies for Special Needs Education (SNED) classrooms have a favorable impact on learning outcomes highlights the revolutionary implications these techniques have on students' academic achievement. Beñalet et al. (2023) stated that the persistent acknowledgment of enhanced learning results points to a shift away from conventional teaching techniques and toward more efficient and customized instructional approaches. This subject focuses on how implementing cutting-edge strategies improves student engagement and results in measurable academic gains, demonstrating a dedication to offering successful and fulfilling educational opportunities for kids with special needs (Dell'Anna, Pellegrini, & Ianes, 2021).

3.2.3. Enhanced Overall Well-being

The beneficial effect on students' general well-being that occurs in SNED classes is another recurring theme. The creative teaching strategies enhance the inclusive, encouraging, and developmentally appropriate learning environment. Furthermore, sensory play learning is explicitly highlighted as a cutting-edge approach to improve general well-being while fostering growth and development in a special education setting.

The participants' responses emphasized and reaffirmed this; they said that:

“Most students are more engaged in the classroom after implementing innovative teaching approaches improving their overall well-being.” – R3

“...the learners' overall well-being is more ready for more learning activities and developed” – R5

Within the framework of innovative teaching strategies for Special Needs Education (SNED) classrooms, the theme of improved overall well-being highlights the holistic effects these strategies have on kids that go beyond academic success. Wang & Kuo (2019) emphasized that these methods assist in the creation of a welcoming and inclusive atmosphere that attends to the general well-being of students by concentrating on developing a developmentally appropriate setting. This acknowledges that education is more than just acquiring knowledge; it also has a positive effect on students' physical, emotional, and sensory well-being (Benn, 2012). The unique technique of sensory play learning is specifically mentioned, highlighting the complete nature of these strategies in providing students with special needs with a good and meaningful educational experience (Berasategi, 2022).

3.3. Challenges Educators Encounter when Implementing Innovative Teaching Approaches in Teaching Special Needs Education

Key themes and core ideas that emerged from the discussion on the challenges educators encounter when implementing innovative teaching approaches in teaching SNED, as shown in Table 3. Three (3) emerging themes namely:

resource limitations and training, technological material constraints, continuous creativity, and engagement. The researchers defined these themes, discussed them thoroughly, enriched them with core ideas, and supported them with existing studies and literature.

Table 3. Major Themes and Core Ideas on the Challenges Educators Encounter when Implementing Innovative Teaching Approaches in Teaching Special Needs Education

Major Themes	Core Ideas
Resource Limitations and Training	<ul style="list-style-type: none"> • <i>limited resources and training; many educators may lack access to adequate resources, materials, and training needed to effectively implement innovative teaching approaches in SPED classrooms. – R1</i> • <i>Most innovative strategies, particularly materials need money to fulfill so it is a challenge for the teachers to provide – R3</i> • <i>Also is the budget for the toys, for the manipulatives for them to be more encouraged to learn and be more excited to go to school because – R5</i>
Technological Material Constraints	<ul style="list-style-type: none"> • <i>Limited access to technology, and specialized equipment – R2</i> • <i>The challenges include keeping up with technological advancements and addressing students' diverse backgrounds and levels of preparation. – R4</i>
Continuous Creativity and Engagement	<ul style="list-style-type: none"> • <i>Other strategies also have to be suited to the individual needs of the students. Hence, it is quite a challenge to implement in the classroom – R3</i> • <i>The challenges are of course when you are being innovative so from time to time, every time the child comes to the classroom, there must be something new that can be seen so that it would not be boring to the child – R5</i>

3.3.1. Resource Limitations and Training

The theme emerged due to the teachers frequently encountering real-world obstacles, which make it difficult for them to successfully apply cutting-edge teaching strategies in Special Needs Education classes. These issues are made worse by a lack of training and professional development, underscoring the urgent need for all-encompassing assistance to improve teachers' capacities to design inclusive and productive learning settings for kids with special needs.

Here are some of the responses during the IDI of the participants:

“Educators may encounter several challenges when implementing innovative teaching approaches in special education. One of them is, limited resources and training; many educators may lack access to adequate resources, materials, and training needed to effectively implement innovative teaching approaches in SPED classrooms.” – R1

“Most innovative strategies, particularly materials need money to fulfill so it is a challenge for the teachers to provide” – R3

“Also is the budget for the toys, for the manipulatives for them to be more encouraged to learn and be more excited to go to school because they’ll think that ah the teacher will have something new to the classroom, some new manipulatives for me to do for fun” – R5

The lack of tools, supplies, and training opportunities necessary for successful implementation in SNED classrooms presents challenges for many educators (Akinyi & Ezekiel, 2015). One practical obstacle is limited access to

money and educational materials, among other important resources. Furthermore, a lack of opportunities for professional development and training makes it more difficult for teachers to incorporate cutting-edge teaching strategies that are customized to meet the unique requirements of their special education pupils (Pas et al., 2016).

3.3.2. Technological Material Constraints

Teachers frequently lack the professional development opportunities and training needed to successfully use cutting-edge teaching strategies that call for technology. Budgetary restrictions also make it difficult to provide a variety of resources, which makes it difficult to put methods in place that are intended to meet the particular needs of kids with special needs.

The participants' responses supported and emphasized this, saying as follows:

“Limited access to technology, and specialized equipment. Educators may lack the necessary training and professional development opportunities to effectively implement innovative teaching approaches tailored to students with special needs.”
 – R2

“The challenges include addressing the varied backgrounds and preparation levels of pupils as well as keeping up with technology advancements.” – R4

Limited access to technology and specialized equipment becomes a substantial hindrance, particularly when educators lack the necessary training and professional development opportunities to effectively integrate these tools into the learning environment for students with special needs (Collins & Halverson, 2018). Furthermore, Akinyi & Ezekiel (2015) emphasized that budgetary constraints emerge as a substantial challenge, impeding educators' ability to procure diverse updated technological materials that are crucial for fostering engaging and inclusive learning experiences. To overcome these obstacles, a coordinated effort is needed to give teachers the tools, resources, and funding they need to develop a technologically rich and innovative learning environment that is specific to the needs of kids with special needs.

3.3.3. Continuous Creativity and Engagement

Educators express the necessity of consistently introducing novel and engaging elements to prevent monotony and sustain students' interest in learning. The challenge extends beyond the classroom, requiring educators to be creative daily, adapting to the diverse needs and interests of students with special needs.

Here are a few of the comments made by participants at the IDI:

“Most innovative strategies, particularly materials need money to fulfill so it is a challenge for the teachers to provide. Other strategies also have to be suited to the individual needs of the students. Hence, it is quite a challenge to implement in the classroom” – R3

“The challenges are of course when you are being innovative so from time to time, every time the child comes to the classroom, there must be something new that can be seen so that it would not be boring to the child and it will drive the child's interest to learn. So the challenge is that I have to be creative every day” – R5

The challenge extends to the daily efforts of educators to tailor their teaching methods according to the unique needs and interests of individual students, aiming for a personalized and engaging learning experience (Bacon, 2015). This involves a constant adaptation of instructional approaches, learning materials, and activities to address the diverse learning styles and preferences present in Special Needs Education (SNED) classrooms (Obaid, 2013). However, the financial aspect becomes a significant hurdle in this endeavor, as educators often encounter constraints in acquiring new toys, manipulatives, and materials that are vital for sustaining students' excitement and engagement in the learning process (Pierangelo and Giuliani, 2006).

4. Conclusion

In conclusion, this case study delved into the innovative teaching approaches employed by educators in teaching students with special needs (SNED). Through comprehensive exploration, four prominent themes emerged: multi-sensory instruction, differentiated instruction, technology integration, and interactive play-based instruction, indicating a diverse array of strategies utilized to cater to individual learning needs. These approaches have demonstrated a significant impact on SNED, fostering engagement, enhancing learning outcomes, and improving overall well-being. However, the implementation of such innovative methods is not without challenges, as highlighted by resource limitations, technological constraints, and the ongoing need for creativity and engagement. Notwithstanding these barriers, the study emphasizes the

critical role that creative teaching strategies play in promoting special needs education and advocates for ongoing funding and assistance to solve the issues raised and guarantee that every student has access to an equal education.

5. Recommendation

Based on the findings of the study regarding innovative teaching approaches for students with special needs (SNED), it is recommended that educational institutions and policymakers prioritize investment in resources and training to support the effective implementation of these approaches. This includes providing educators with access to specialized materials, technology, and ongoing professional development to enhance their ability to cater to diverse learning needs. Additionally, fostering collaboration among educators, researchers, and stakeholders can facilitate the sharing of best practices and innovative strategies, ultimately promoting inclusive education environments. Furthermore, efforts should be made to address the identified challenges, such as resource limitations and technological constraints, through targeted interventions and policy initiatives.

For future studies, it is recommended to conduct longitudinal research to assess the long-term effectiveness and sustainability of innovative teaching approaches in special needs education. This could involve tracking students' academic progress, engagement levels, and overall well-being over an extended period to determine the lasting impact of these approaches. Additionally, further exploration into the specific needs of different subgroups within the special needs population, such as students with autism spectrum disorder or specific learning disabilities, can provide insights into tailored instructional strategies. Moreover, investigating the perspectives of various stakeholders, including students, parents, and educational professionals, on the implementation and outcomes of innovative teaching approaches can offer a comprehensive understanding of their efficacy and identify areas for improvement. Lastly, comparative studies across different educational settings and cultural contexts can contribute to the development of best practices that are adaptable and inclusive on a global scale.

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