

Effective Teaching Strategies for Physically Disabled Students: A Reflective Approach

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Abstract: The study explored how teachers of special education handle working with physically disabled students in specialized education settings through phenomenological research. The research focused on finding out how reflective practice affected teaching methods and student achievement outcomes. Through in-depth interviews researchers collected most of their data. A guide structured the conversations between the researchers and participants. The research relied on purposive sampling that identified physical disability teachers to achieve various viewpoints and teaching experiences. Qualitative data received thematic analysis as the research method which enabled researchers to identify dominant themes and patterns that emerged from teaching experiences with reflective practice. Teachers identified Gibbs Reflective Cycle as a vital system which organized their reflective improvement activities. Exceptional educators argue that reflection generates better learning results because it boosts conceptual analysis and promotes both student physical disability engagement and classroom cultural variety. The study indicated that PBL and IBL together with technology-enhanced teaching along with cooperative learning make powerful tools for reflective practice enhancement. These teaching methods work to boost student participation by requiring educators to perform ongoing assessment and development of their educational approaches. The research findings will develop frameworks for teaching professional development of special education instructors and also provide important strategies for teachers seeking instructional enhancement until these methods spearhead optimal learning conditions for whole student populations.

Keywords: Physically Disabled Students, Teaching Strategies, Reflective Approach, Reflective Practitioner



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Introduction

Students with physical disabilities require customized instructional methods to ensure inclusive and effective learning experiences. Educators are tasked with implementing specific teaching strategies that foster a supportive and accessible educational environment, enabling these students to achieve academic success and realize their full potential. The special education teacher plays a crucial role in advancing the inclusive education process (Fernandes, 2021). Inclusive education has gained significant attention in recent years, emphasizing the need for effective teaching strategies to support physically disabled students (Donmez, 2024).

Reflective practice is a thoughtful analysis of any aspect of one's professional practice to gain insight and use the acquired knowledge to improve or maintain good practice (Sathiadas, 2019). A key element of good teaching is being a reflective practitioner. It entails assessing one's teaching methods on a regular basis and modifying them as needed to enhance student learning results. The idea of reflective practice in teaching, its significance, and methods for putting it into practice in the classroom will all be covered in this introduction. A teaching approach known as "project-based

learning" places a strong emphasis on students participating in a lengthy project that calls for cooperation, critical thinking, and problem-solving. This method is based on the idea that active participation in the learning process is the most effective way for pupils to teach (Bytyqi, [2020](#)).

Schön ([1983](#)) defined reflective practice as considering one's activities critically in order to do better in the future. This entails routinely assessing the effects of one's teaching methods on students' learning and making necessary adjustments. Teachers must follow this permanent system to improve their instructional techniques. Through reflective practice both student learning outcomes improve alongside educator motivation and professional interest (Tariq et al., [2024](#)). The practice of reflection enables instructors to establish a purposeful direction in their work which boosts their dedication toward teaching even in challenging classroom conditions. A teacher's dedication along with motivation and work satisfaction levels increases when educators believe their teaching practices lead their students to positive changes and meaningful differences (Tinsley, [2023](#)). Teachers need reflective practice because it serves as their main professional development tool. The practice lets teachers know about modern educational approaches and gain new skills that grow their competence each year. As a result of this activity teachers improve their job efficiency while experiencing enhanced professional satisfaction along with better work results which leads to their transformation into better teaching professionals (Awidi & Klutsey, [2024](#)). Educators benefit from reflective practice to set their professional development goals while evaluating their competencies through this approach.

The education system depends on reflective teaching practices for its operation. Participating in reflective practice allows teachers to boost instructional methods while adapting to student educational needs as they evolve (Tariq et al., [2024](#)). This practice generates better educational outcomes for students combined with higher student motivation levels and supports instructors' growth into more successful educators. Professional judgment and problem-solving capabilities of teachers receive growth from reflective practice while facing diversity in current teaching environments. Through reflective practice teachers gain professional development benefits that positively affect their students' life outcomes. Research shows that educational results from students improve when instructors apply reflective techniques (Daniels, [2002](#)). Teaching practice adjustments will allow them to determine subject-specific student struggles with greater precision.

Through reflective practice teachers create while maintaining professional motivation levels which leads to increased participation as they dedicate time to practice improvement (Loughran, [2013](#)). There is a gap in literature about reflective studies of the teachers who taught physically disabled students. That's why it is imperative to work on the improvement of teaching strategies for physically disabled students according to their educational needs. Reflection of the teachers may reflect many concerns about teaching of physically disabled students. Teachers can improve their practice and positively impact student learning outcomes by implementing strategies such as keeping a teaching journal, engaging in regular self-evaluation, and participating in peer observation (Khatter et al., [2024](#)).

Research Objectives

The objectives of the study were to:

- ▶ Explore the concept of reflective practice in teaching of physically disabled students and its importance
- ▶ Explore the impact of reflective practice on physically disabled student's learning outcomes
- ▶ Identify specific teaching strategies that teachers can use to engage in reflective practice and improve their teaching skills for teaching physically disabled students

Research Questions

These were the following questions of the study.

- ▶ How can the concept of reflective practice in teaching for physically disabled students be explored, and what is its importance?
- ▶ How to explore the impact of reflective practice on physically disabled students' learning outcomes?
- ▶ What are the barriers that hinder teachers from engaging in reflective practice?
- ▶ What specific teaching strategies can teachers use to engage in reflective practice and improve their teaching skills for teaching physically disabled students?



Significance of the Study

The importance of improving teaching strategies as a reflective practitioner cannot be overstated. Reflective practice is an indispensable element of successful pedagogy, enabling educators to continually assess their instructional approaches and implement modifications to optimize student learning. Reflective practice is an ongoing process that allows teachers to continuously improve their practice and adapt to the changing needs of their physically disabled students. Teachers who practice reflection have a favorable influence on students' learning outcomes, according to several studies. The method of reflective reflection according to Schön (1983) helps instructors improve their professional judgment and problem-solving abilities. Teacher flexibility is essential in present classrooms that serve pupils with diverse backgrounds since educators must modify their methods to achieve learning goals for each individual student. Educators who practice reflection can detect their students' learning challenges so they can adjust their teaching methods to achieve better results with students who have physical disabilities.

Theoretical background

Reflections of Practice Theory by Schön provides theoretical support for this research. Specialists including educational personnel achieve skill enhancement through consistent examination of their professional experiences. Teachers understand and change teaching approaches by evaluating their teaching methods on a regular basis. Educators working in special education must follow a reflective approach according to Schön (1983) to develop an inclusive learning environment for students with physical disabilities because this process highlights subject-specific adjustments.

Literature Review

Inclusive Setting and Teaching Strategies

A learner's effectiveness in acquiring knowledge is significantly enhanced by the diversity of their experiences. Consequently, this diversity contributes to their success in navigating a world filled with challenges. This principle is particularly relevant for learners with physical disabilities, as they often possess varied experiences that lead to distinct learning requirements (Ghaznavi et al., 2021). Children with special needs may experience a variety of challenges, including visual impairments, hearing impairments, intellectual disabilities, physical disabilities, auditory processing issues, learning difficulties, behavioral disorders, giftedness, health-related issues, and social interaction difficulties (Jariono et al., 2022). The preceding explanation highlights the significance of inclusive education, regarded as the appropriate approach to ensuring that every child's right to education is met. Children with special needs have the right to receive the same schooling as normal children (Government of Pakistan, 2020)

Inclusive education has increasingly become a focal point in recent years, highlighting the necessity for effective pedagogical approaches to assist students with physical disabilities. In a systematic review by Donmez (2024) investigates effective pedagogical strategies that utilize technology to improve educational outcomes for students with physical disabilities, advocating for a reflective methodology to cater to their distinct learning requirements. Teaching strategies are the methods and techniques that teachers use to deliver instruction and help students learn. They are essential to effective teaching and can significantly impact student learning outcomes. Teachers can use various teaching strategies, and the most effective strategies will depend on the subject matter, the students, and the class context (Kamran et al., 2023). One of the most widely used teaching strategies is direct instruction, which is a method of teaching in which the teacher provides clear and explicit information to the students. This method is often used to teach basic skills such as reading, writing, and arithmetic and can be effective for teaching students with different learning styles (Darling-Hammond, 2017).

Johnson and Johnson (1999, 2021) explain that cooperative learning serves as an educational design where students collaborate their knowledge for mutual success targets. Students follow three essential steps as part of cooperative activities which include personal responsibility and collective accountability and direct group communication and assessment of group progress. Each student's achievement requires all group members to reach their targets. Every learner bears complete responsibility for their progress while also taking responsibility for the academic success of their group members. Student collaboration is possible through immediate personal interaction



under this method. The group processing phase involves examining group work outcomes to identify ways that will enhance team performance. Perlado et al. (2021) focuses on the value of teamwork with diverse educational approaches needed to serve all students together with those with special learning needs as well as the coordination needed between educators and specialists to put these strategies into action.

Problem-based learning (PBL) together with Inquiry-Based Learning (IBL) focus on student participation as a fundamental teaching approach. Students develop their knowledge by making direct applications of real-world problems within PBL educational approaches. The learning methodology matches the educational principle which demonstrates that active engagement enables students to advance their understanding (Barrows, 1996). IBL engages students in guided investigations through which they develop their own questions then investigate and ultimately build new knowledge. The literature review by Joseph et al (2022) illuminates project-based learning as well as problem-based learning because they teach students life skills to become decision makers and independent thinkers. The methods of project-based learning and problem-based learning enable students to develop essential life skills that drive their transition toward self-reliant thinking and decision making and problem-solving capabilities.

The teaching approaches should match student learning preferences and styles according to Darling-Hammond (2017) because this supports positive classroom cultures, effective teacher-student bonds and provides students with independent learning opportunities. The implementation of technology-based teaching strategies occurs through the incorporation of electronic resources and program software for educational delivery. The approach utilizes technology as an asset to improve both student learning experiences and their focus on schoolwork (Warschauer & Matuchniak, 2010). The implementation of new educational tools by educators and students now drives continuous investigations and classroom developments in educational practice (Merritt et al., 2017). According to Darling-Hammond (2017) students require learning approaches that reflect their individual learning needs and styles. The educator stressed developing a constructive learning environment alongside fostering strong student relationships as he showed how to enable self-directed education. A comprehensive literature review has identified that gamification, blended learning, adaptive learning technologies, and online collaboration platforms effectively engage millennial learners and maximize their learning outcomes (Pramesworo, et al., 2023).

Reflective Practice in Teaching

The Gibbs Reflective Cycle by Gibbs (1988) offers teachers a standardized six-stage method for reflective practice that teachers use extensively in their teaching. The first phase demands teachers to present an objective outline of the particular incident or experience under review. The teacher must first identify their emotional reactions to the incident before articulating those responses during the examination phase. The evaluation step requires a thorough examination of the experience where teachers identify both positive and negative aspects. Analysis goes past surface observations to probe the core patterns along with related influences on the experience itself. The enhanced recognition allows the formulation of conclusions which validate essential understanding points. The last step creates an action plan that transforms important insights into practical educational strategies to enhance upcoming teaching practices (Khatter et al., 2024).

The Gibbs Reflective Cycle allows educators to examine their teaching methods while finding ways to enhance them then creating strategies for implementing this gained knowledge in their upcoming teaching sessions. Teachers can utilize the Gibbs Reflective Cycle as a procedural framework for reflective teaching to understand their teaching approach while creating plans for utilizing this gained knowledge to advance teaching quality. Mezirow (1991) maintains perspective transformation plays an essential role in adult learning development that enables adults to become better self-directed autonomous critical learners. The process of critical self-reflection and dialogue stands necessary for both organizational transformation and community-wide change according to his explanations. The theory concentrates on critical self-reflection together with dialogue as basic elements to create transformative learning and transformation. Reflective practice serves as a mechanism for developing learners who maintain self-direction while being autonomous in their learning efforts.

Self-reflection combined with conversations between individuals allows them to study their viewpoints and principles while studying alternate ways of seeing things. Critical reflection and engagement with others enable an



individual to develop more profound situation understanding while their beliefs and actions both evolve (Kamran et al., 2023). The purpose of reflective practice is to examine professional activities with purposeful analysis for enhancing teaching quality (Sathiadas, 2019). Studies show that reflective practice linked with innovative teaching methods creates positive effects on student learning outcomes and teacher workplace enthusiasm. Teachers experienced increased job satisfaction and motivation while applying reflective practice together with cooperative learning methods according to Lai and Lin (2019). Chen et al. (2021) proved that students achieved better mathematics results through the combination of reflective practice with problem-based learning. Students experienced enhanced engagement coupled with increased motivation when reflective practice combined with technology-based strategies according to Chen et al. (2021).

Methods

Special education teachers supporting physically impaired students were studied through qualitative methods in this investigation. Research through qualitative methods provides ideal conditions to study human encounters deeply since it enables investigators to interpret native environments to capture shifting characteristics while recognizing cultural differences (Creswell, 2013). The phenomenological research design enabled researchers to understand the personal experiences of participants so they could explain the studied phenomena.

Population and Sampling

Special education teachers with knowledge in working with physically impaired students in specialized institutions formed the study population. The study required participants from Tehsil-level special education centers through purposive sampling. Special education institutions serve students who possess different disability types which include both intellectual and developmental disabilities (IDD), hearing difficulties and visual impairments together with physical disabilities. Each center employs one to four specialized teachers, depending on the number of students enrolled. Only one junior special education teacher specializing in physical disabilities was selected from each school. Six teachers were selected who expressed their willingness to articulate their experiences related to the phenomenon being investigated. In a phenomenological study, it is recommended to include 3 to 10 participants. The researcher selected the interview method to collect data from the respondents following all interview protocols.

Instrumentation

The research instrument consists of eight questions for the interviewing guide developed by the researchers after consulting the previous research and consulting concepts with field experts. Data for this study were gathered through semi-structured interviews. A semi-structured interview refers to verbal interaction in which the interviewer tries to extract information from the interviewee with the help of questions. Even though the interviewer carries an interview guide with predetermined questions, in semi-structured interviews, the discussion unfolds in an everyday conversational style to make participants feel more comfortable and provide the interviewer with the chance to explore the concerns that they think are necessary. Three experts in the field did face the validity of the instrument. Suggestions of the experts were accommodated and the instrument was refined. Then, piloting was done to clarify the distracting outcomes. The language of the statements was improved after piloting to increase their clarity. Furthermore, the interview questions were reorganized to make them in a logical sequence.

Data Collection

The research instrument was an interview guide, developed based on a comprehensive literature review. Data were collected through semi-structured interviews, which allowed for flexibility and depth in exploring participants' experiences. Participants were informed that their data would be treated with strict confidentiality and that they had the right to withdraw from the research at any time without consequence. Then, they were requested to provide their feasible timing and venue for the interview. Mostly, teachers preferred to respond to phone calls due to a shortage of time during school time. With participants' permission, the phone call recording option was used for data recording,



and the recordings were kept safe in a separate folder. The duration of each interview was 20-30 minutes. Later, the researcher transcribed the interviews after listening many times to carefully include all the provided data.

Data Analysis and Findings

Thematic analysis was done to analyze the data, identifying recurring themes and patterns that emerged from the participants' responses. The analysis of participant responses revealed several key themes and sub-themes related to reflective practice and its impact on teaching strategies, student outcomes, and teacher professional development. Below is a detailed presentation of the findings, organized into themes.

- ▶ **Theme 1:** Role of the Gibbs Reflective Cycle
- ▶ **Theme 2:** Reflective Practice and Teacher Motivation
- ▶ **Theme 3:** Effective Teaching Strategies for Promoting Reflective Practice
- ▶ **Theme 4:** Impact of Reflective Practice on Student Learning Outcomes
- ▶ **Theme 5:** Best Practices for Integrating Reflective Practice
- ▶ **Theme 6:** Reflective Practice and Inclusive Teaching
- ▶ **Theme 7:** Barriers to Reflective Practice

The findings are aligned under these themes with the research questions.

Research Question 1: How can the concept of reflective practice in teaching be explored, and what is its importance?

Teacher participants highlighted the Gibbs Reflective Cycle as a valuable tool for enhancing the effectiveness of reflective practice. Through its structured system teachers can analyze their educational practice thoroughly as they create specific plans to enhance their performance. Teacher #5 revealed that "The Gibbs Reflective Cycle establishes a systematic approach to reflection which permits educators to discover improvement needs and successfully execute necessary changes." Participants valued how Gibbs Reflective Cycle promotes reflective/self-reflective thinking that generates profound understanding about teaching practices. The Gibbs model directs teachers to perform critical assessment that aids their understanding of instructional approaches according to Teacher #6. The practice of reflection leads to increased teacher motivation alongside enhanced job satisfaction through its ability to create freedom in teaching and teaching creativity. When reflective practice pairs with innovative teaching techniques it lets educators possess their teaching practices to develop new teaching concepts. Teacher #2 clarified that reflective practice enables educators to modify their teaching methods freely which leads to better motivation as well as job satisfaction. The implementation of reflective practice serves as a key factor that enhances teaching methods which promote equality among all students. The analysis tools from reflective practice assist teachers to handle assessment and judgment of their existing beliefs as well as biases so they become more inclusive in their teaching practices. Teacher #6 explained that reflective practice serves as a tool for educators to find and rectify their prejudices so their teaching reaches everyone. Through reflective practice teachers develop a system which lets them evaluate and modify their strategies to serve different student populations. Teacher #4 described that practitioners who reflect on their work methods can create educational approaches which benefit all students.

Research Question 2: How to explore the impact of reflective practice on student learning outcomes?

The teacher participants throughout the study observed that reflective practice supports improved students' achievement outcomes through teachers developing better teaching methods for individual students. The evaluation process of reflective practice enables teachers to examine their instructional methods and determine required modifications. The classroom strategies that develop through reflection allow students to become more actively involved with improved results. Teacher #1 explained that reflective practice gives educators the power to modify their instructional approaches so students develop critical thinking together with self-reflection skills which leads to enhanced learning results. Through reflective practice teachers acquired improved abilities to respond to their students' different needs which led them to maintain classrooms that serve all students equitably. Teachers can recognize and remove biases when they reflect on their work practices to deliver educational options that benefit



every member of their classroom according to Teacher #6. The improvement of student learning results from reflective practice creates stronger motivation for teachers while strengthening their dedication to teaching. Teacher #5 observed that teachers grow more driven and content after noticing that their teaching work produces superior academic results among students.

Research Question 3: What are the barriers that hinder teachers from engaging in reflective practice?

Multiple obstacles exist which restrict teachers from implementing reflective practice according to teachers who then proposed solutions for these blocks. The principal obstacle for teachers involves insufficient time combined with limited training together with institutional backing for reflective work. Teacher #1 disclosed that heavy workloads combined with insufficient training about effective reflection prevent teachers from finding reflection opportunities. Teachers proposed that providing such professional development opportunities together with supportive cultural environments and structured frameworks based on the Gibbs Reflective Cycle will combat these obstacles. Teacher #3 highlighted the need for educational institutions to combine training with specified resources and dedicated reflection periods in order to motivate teachers toward reflective practice. The systematic design of the Gibbs model functions as both a measuring tool for teaching reflection practices and their educational outcomes.

Research Question 4: What specific teaching strategies can teachers use to engage in reflective practice and improve their teaching skills with teaching physically disabled students?

Through the study participants discovered multiple approaches for building teacher reflection skills in their practice. The implemented strategies support teaching staff in developing critical thinking abilities alongside self-reflection which leads to progress in their professional competencies. The participant group reported that cooperative learning along with problem-based learning (PBL), inquiry-based learning (IBL), and project-based learning (PjBL) prove successful at developing reflective practice among teachers. The strategies demand teachers to assess their current approaches so they can develop methods which properly address students with physical disabilities. According to Teacher #3 problem-based learning with inquiry-based learning enables instructors to assess their teaching practices so they can enhance student success metrics. Educational technologies that include digital quizzes and interactive presentations serve as key instruments for teacher reflection in the classroom.

Teachers indicated that technology helps them measure their teaching methods before transforming them for better individualized and exciting lesson designs. When reflective practice teams up with technology-based strategies it generates active learning spaces which boost student interest through interactive approaches according to Teacher #4. Many teachers identified the Gibbs Reflective Cycle as an optimal system for practicing reflection. The participants found value in the reflective cycle because it guides both teachers to locate their weaknesses and create practical improvement pathways. Teacher #5 described how the Gibbs Reflective Cycle develops proper reflection methods which aid teachers in both analyzing their teaching methods and implementing effective changes. Multiple effective methods at the level of best practice for incorporating reflective practice within teacher professional development emerged from the knowledgeable educators.

The successful implementation of reflective practice requires adequate training and suitable resources to be accessible to teaching staff. Teacher #4 emphasized that professional development that includes training about reflective practice combined with resource access will enable staff members to grasp its value and implementation methods. Implementing reflective practice requires teachers to develop frameworks built upon reflection and fostering collaborative interactions among their colleagues. Teacher #5 explained that collective reflection enables educators to exchange their discoveries while benefiting their professional advancement initiatives.

Discussion

Reflective practice serves as an essential discipline that boosts teaching quality and advances the academic results of students in conjunction with enhancing teacher work motivation. The study results demonstrate that reflective practice needs to merge with competitive teaching methods including problem-based learning (PBL) and inquiry-based learning (IBL) as well as technology-based methods to support physically disabled students. Such strategies



motivate educators to assess their educational practices and modify teaching strategies based on the diverse academic requirements of students who study in inclusive classrooms. The research by Chen et al. (2021) proved that reflective practice achieves higher student engagement and achievement by linking it with active learning strategies. The Gibbs Reflective Cycle serves as a structured framework according to Khatter et al. (2023) which helps teachers' complete critical self-reflection together with action planning. This study expands the application of reflective practice for teaching physically disabled students in specialized educational settings by revealing fresh understanding about adaptive implementation. Reflective practice continues to encounter hurdles because institutions don't support it adequately and employees lack both time and training for using this method. The instructors who work with physically disabled students stressed that they require professional development opportunities together with resources along with a reflective practice culture to address these difficulties in their teaching. Awidi and Klutsey (2023) also found that institutional support plays a crucial role in developing reflective practice according to this research. Numerous studies including Tariq et al. (2023) prove that professional mentoring through joint reflection sessions elevates reflective practice results and this research supports their findings. Schools should remove these obstacles and use proven methods to enable teachers who work with physically disabled students to practice meaningful reflection which will drive their professional development and educational results. The research enhances existing knowledge by demonstrating the transformative power of reflective practice when used in teaching various physical disabilities to students and underscoring the need for systemic support to maximize its impact.

Conclusion and Recommendations

The support of teachers enables physically disabled students to become more active members of their society. The process of critical thinking and self-reflection allows teachers to develop flexible teaching methods which serve the various requirements of physically disabled learners. The combination of reflective practice with active learning techniques and technology resources along with the structured Gibbs Reflective Cycle transforms its educational value into interactive customized learning opportunities. The successful use of reflective practice depends on resolving obstacles which include insufficient time availability and lack of training and support systems. The educational institutions serving physically disabled students must establish programs for professional development and foster reflective environments while making available needed resources and specific periods for students to engage in reflective activities. The system can equip instructors teaching physically disabled students to practice meaningful reflection through which they generate continuous professional evolution and enhanced academic outcomes. Future scholars must investigate how reflective practices affect student outcomes gradually as well as study different approaches to distribute reflective practices among educational institutions. Dedicate specific time for reflective activities together with peer mentorship programs to increase shared learning and critical thinking that results in professional development. Teach better by using reflective practices together with problem-based learning models and technology and student-orientated methods.



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