

Forming Reflexive Skills in Future Surdopedagogues

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Abstract: The development of reflexive skills is crucial for future surdopedagogues, as these skills enhance their ability to assess and adjust their teaching practices to meet the unique needs of students with hearing impairments. This article explores the importance of reflective thinking in the professional preparation of surdopedagogues, focusing on its role in fostering critical self-analysis, improving pedagogical techniques, and promoting effective communication. The study highlights key methods and strategies for integrating reflexive practices into the educational curriculum, offering insights into how self-awareness and reflective skills can be cultivated. The findings emphasize the necessity of reflexive skills for ensuring quality education and inclusive learning environments for students with hearing impairments.

Keywords: reflexive skills, surdopedagogy, future teachers, hearing impairments, professional development, reflective thinking, pedagogical strategies, inclusive education, self-awareness, communication skills.



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Introduction

The formation of reflexive skills in future surdopedagogues holds significant importance in today's educational landscape. As the demand for specialized educators who can work effectively with students with hearing impairments continues to grow, it becomes essential to equip these professionals with the tools necessary for self-assessment and continuous improvement. Reflexive skills, which enable individuals to critically analyze their own teaching practices, are fundamental to fostering adaptive and inclusive learning environments[3].

The relevance of this topic is underscored by the unique challenges faced by students with hearing impairments, who require tailored pedagogical approaches to ensure equal access to quality education[4]. Surdopedagogues, as specialists in this field, must not only be proficient in sign language and communication techniques but also be capable of reflecting on their interactions, assessing their methods, and making adjustments to optimize learning outcomes[1]. Reflexive thinking allows educators to understand their strengths and areas for growth, leading to more personalized and effective teaching[2].

Moreover, in the context of modern educational reforms that emphasize inclusivity and diversity, the ability to reflect and adapt is increasingly valued[5]. Reflexive skills enhance teachers' professional competence and promote a deeper understanding of students' individual needs,

ultimately contributing to more empathetic and responsive teaching[7]. Therefore, the integration of reflexive training into the curriculum for future surdopedagogues is not only timely but essential for ensuring that these educators are prepared to meet the demands of a rapidly evolving and inclusive educational environment.

This article explores the strategies and methods for cultivating reflexive skills in future surdopedagogues, highlighting the long-term benefits for both educators and students. Through this lens, the study aims to shed light on the broader implications of reflective practices for improving the quality of education for students with hearing impairments.

Methodology

This study employs a mixed-methods approach, integrating both qualitative and quantitative research methods to explore the development of reflexive skills in future surdopedagogues. The mixed-methods design allows for a comprehensive understanding of the process, combining statistical data with in-depth insights from participant experiences. This approach is particularly suitable for educational research, as it provides a holistic view of the subject under investigation.

The participants in this study include 50 future surdopedagogues enrolled in their third and fourth years of study at a specialized university. They were selected through purposive sampling to ensure that they represent students who have already been exposed to the theoretical foundations of surdopedagogy. The selection criteria focused on individuals who had completed at least one year of practical teaching experience with hearing-impaired students, allowing for more accurate reflection on the formation of reflexive skills.

Data were collected through a combination of the following methods:

Surveys: A Likert-scale questionnaire was designed to measure participants' self-assessment of their reflexive skills before and after a structured training program. This instrument was adapted from the Reflective Practice Questionnaire (RPQ), which has been validated in similar educational settings.

Interviews: Semi-structured interviews were conducted with 15 participants selected from the larger sample group. These interviews focused on their experiences with reflective practice during their teaching practicum. The interviews were designed to gather qualitative data on participants' insights into how reflexive skills helped them address challenges in the classroom.

Observations: Classroom observations were carried out during the participants' teaching sessions with hearing-impaired students. These observations focused on identifying moments where reflexive practice was applied, such as adjustments made to teaching methods based on student feedback[3].

Intervention: Reflexive Skills Training Program

The reflexive skills training program implemented in this study was based on Kolb's Experiential Learning Theory [1], which emphasizes the importance of reflection in learning and professional growth. The program included the following components:

Self-Reflection Journals: Participants were required to maintain reflective journals throughout their teaching practicum, documenting their experiences, challenges, and insights gained from working with hearing-impaired students. This practice encouraged critical self-assessment and continuous improvement[2].

Peer Feedback Sessions: Weekly peer feedback sessions were incorporated, where participants shared their reflections and received constructive feedback from peers and mentors. Peer collaboration has been shown to enhance reflective practices by providing alternative perspectives.

Mentorship: Experienced surdopedagogues acted as mentors, providing guidance and facilitating reflective discussions with participants. Mentorship has been identified as a key factor in developing reflexive skills, particularly in specialized fields such as surdopedagogy.

Data Analysis. The quantitative data from the pre- and post-training surveys were analyzed using descriptive statistics to assess changes in participants' self-reported reflexive skills. The data were processed using SPSS software, with results compared to identify any statistically significant improvements in reflexive practice.

For the qualitative data, thematic analysis was used to identify recurring themes from the interviews and reflective journals. Key themes included self-awareness, adaptability in teaching methods, and the role of feedback in professional growth. These themes were cross-referenced with the findings from classroom observations to ensure the reliability of the qualitative data.

Ethical approval for the study was obtained from the university's ethics committee, and all participants provided informed consent. The confidentiality of the participants was maintained throughout the study, and pseudonyms were used in the reporting of qualitative data. Participants were also given the right to withdraw from the study at any point without penalty.

Results

Quantitative Results: Survey Data. To evaluate the impact of the reflexive skills training program, a pre- and post-survey was conducted using the Reflective Practice Questionnaire (RPQ). The results demonstrate significant improvements in the participants' self-reported reflexive skills.

Table 1 below shows the mean scores before and after the training for key categories of reflexive skills.

Table 1: Pre- and Post-Training Survey Results (Mean Scores)

Reflexive skill category	Pre-training mean score	Post-training mean score	Percentage increase (%)
Self-Awareness	3.4	4.3	26.5
Adaptability in Teaching	2.8	4.1	46.4
Critical Self-Assessment	3.0	4.0	33.3
Confidence in Classroom	3.2	4.2	
Overall Reflexive Skills	3.1	4.2	

Key Findings: The most significant improvement was seen in adaptability in teaching, which increased by 46.4%.

Self-awareness and confidence also showed substantial improvements, rising by 26.5% and 31.3% respectively.

Overall, participants' reflexive skills improved by 35.5% after the training program.

Statistical Significance of Results

A paired t-test was conducted to assess the statistical significance of the improvements in reflexive skills after the training. Table 2 shows the t-test results for the pre- and post-training scores.

Table 2: Paired t-test Results for Reflexive Skills Improvement

Reflexive Skill Category	t-value	p-value	Significance (p < 0.05)
Self-Awareness	4.67	0.001	Significant
Adaptability in Teaching	5.89	0.000	Significant
Critical Self-Assessment	4.12	0.002	Significant
Confidence in Classroom	4.53	0.001	Significant
Overall Reflexive Skills	5.05	0.000	Significant

Key Findings: All categories of reflexive skills showed statistically significant improvements ($p < 0.05$), confirming the positive impact of the reflexive skills training program.

Qualitative Results: Interviews and Journals

Increased Self-Awareness and Confidence: The qualitative data from the interviews and self-reflection journals supported the quantitative findings. Participants consistently reported higher levels of self-awareness and confidence in their teaching practices after engaging in reflective activities.

One participant stated: “The journaling process helped me become more aware of how my teaching methods were either helping or hindering my students' understanding. I could pinpoint areas where I needed to adjust.”

Adaptability in Teaching: Adaptability emerged as a critical theme in the interviews. Participants explained how reflective practice helped them adjust teaching methods to meet the needs of their hearing-impaired students.

For example, one participant noted: “I realized after reading my journal entries that I was speaking too fast for some students. I slowed down and added more visual aids, which improved their comprehension.”

Peer Feedback and Mentorship: The feedback sessions and mentorship were frequently cited as crucial elements for enhancing reflexive skills. Participants found that peer and mentor perspectives helped them identify areas for improvement that they might have missed on their own.

As one participant commented: “My mentor pointed out that I wasn't giving enough wait time for students to process information, which made me rethink my pacing.”

Classroom Observations: Application of Reflexive Skills

Observed Changes in Teaching Methods: Classroom observations confirmed that participants were applying reflexive skills in real-time. Those who showed high levels of self-reflection were observed adapting their teaching methods based on immediate student feedback.

A common adaptation included the use of more visual aids and clearer sign language for better communication with hearing-impaired students.

Enhanced Student Outcomes: The application of reflexive skills positively impacted student engagement and learning outcomes. Participants who adjusted their teaching methods based on reflection were more effective in creating an inclusive learning environment.

Students showed improved comprehension and interaction when reflexive teaching practices were applied, such as slowing down speech, using tactile aids, or increasing visual representations of content.

Summary of Key Findings. Significant Improvement in Reflexive Skills: Both quantitative and qualitative data confirmed significant improvements in reflexive practices among future surdopedagogues, particularly in adaptability, self-awareness, and teaching confidence.

Peer Feedback and Mentorship: These were essential in developing deeper reflexive practices, providing alternative perspectives that helped participants refine their teaching methods.

Challenges in Reflection: Despite the success of the program, some participants initially struggled with reflective writing and time management, though these difficulties decreased as they became more accustomed to the process.

Application in Teaching: Reflexive skills were successfully applied in the classroom, leading to more adaptive and responsive teaching practices, which in turn improved student outcomes.

The results from both the quantitative and qualitative data show that the reflexive skills training program was effective in improving the reflexive practices of future surdopedagogues. The development of these skills enabled participants to adapt their teaching strategies, increase self-awareness, and foster better student outcomes, particularly in inclusive education settings for hearing-impaired students.

Discussion

The findings of this study indicate that the reflexive skills training program had a significant and positive impact on the development of reflexive practices among future surdopedagogues. This section discusses the implications of these results in relation to the literature and highlights both successes and challenges observed during the study.

Improvement in Reflexive Skills. The results demonstrated a marked improvement in participants' reflexive skills, as shown by both the quantitative and qualitative data. The increase in self-reported reflexive skills, especially in areas such as adaptability and self-awareness, is consistent with prior research emphasizing the importance of reflection in teacher development [2,3]. The increase in adaptability (46.4% improvement) suggests that future surdopedagogues became more proficient in adjusting their teaching methods to meet the needs of hearing-impaired students. This aligns with Kolb's [1] Experiential Learning Theory, which posits that reflection on experience is essential for personal and professional growth.

The integration of self-reflection journals into the training process was particularly effective in encouraging critical self-assessment, as noted by participants during the interviews. Similar to findings from Moon[2], participants reported that journaling helped them identify specific areas for improvement in their teaching practices. This supports the view that structured reflection helps educators critically engage with their experiences, facilitating continuous professional development.

Role of Peer Feedback and Mentorship. Another key finding was the importance of peer feedback and mentorship in enhancing reflexive practices. Participants frequently mentioned that receiving feedback from peers and mentors allowed them to see their teaching methods from different perspectives, which led to more effective reflective thinking. This is in line with Larrivee, who argued that collaboration with colleagues deepens reflective practices by providing external viewpoints that challenge one's assumptions.

The mentorship component was similarly valuable, with participants highlighting that experienced surdopedagogues played a critical role in guiding their reflective processes. Koster and Dengerink also emphasized the importance of mentorship in teacher education, particularly in specialized fields like surdopedagogy, where expert guidance can significantly enhance the development of professional competencies.

Application of Reflexive Skills in the Classroom. Classroom observations revealed that participants were able to successfully apply reflexive skills during their teaching sessions, which led to better learning outcomes for their students. This finding supports Rodgers' assertion that reflective teaching promotes better understanding of student needs, leading to more personalized and inclusive teaching strategies. The participants' ability to adapt their teaching methods based on reflection—such as using more visual aids or modifying their communication style—demonstrates the practical value of reflexive skills in surdopedagogy, particularly in creating an inclusive learning environment for hearing-impaired students.

Challenges in Reflection. Despite the overall positive outcomes, some participants faced challenges in the early stages of reflective practice. Time management was frequently mentioned as a barrier, with several participants noting that it was difficult to find the time for regular reflection amidst their other teaching responsibilities. This finding echoes previous research that

suggests novice educators often struggle with balancing reflective activities with the demands of teaching.

Additionally, some participants initially found reflective writing to be a difficult process, as they were not accustomed to critically evaluating their own practices. However, as the study progressed, most participants reported becoming more comfortable with reflective journaling, which is consistent with Moon's[2] findings that reflection becomes easier and more productive over time.

Contribution to the Field. This study contributes to the field of surdopedagogy by highlighting the effectiveness of structured reflexive skills training in improving teaching practices. By integrating self-reflection, peer feedback, and mentorship into the training of future surdopedagogues, this research demonstrates that reflexive practices can be systematically developed, leading to more adaptive, student-centered teaching approaches. Moreover, it provides evidence that reflective practice can directly enhance the educational experiences of hearing-impaired students by fostering more inclusive and responsive teaching environments.

Conclusion

This study set out to investigate the formation of reflexive skills in future surdopedagogues through a structured training program. The results clearly show that reflexive practices, such as adaptability, self-awareness, and critical self-assessment, can be significantly improved through targeted interventions, including the use of self-reflection journals, peer feedback, and mentorship.

Key Findings. Significant Improvement in Reflexive Skills: The training program led to a 35.5% overall improvement in reflexive skills, with adaptability showing the greatest increase. These findings highlight the effectiveness of structured reflection in improving teaching practices.

The Role of Peer Feedback and Mentorship: Peer collaboration and mentorship were crucial in developing deeper reflective thinking, allowing participants to receive valuable insights from others, which enhanced their ability to self-reflect.

Practical Application of Reflexive Skills: The application of reflexive skills in real classroom settings resulted in more adaptive teaching methods, which improved student engagement and comprehension, particularly for hearing-impaired learners.

Challenges in Time Management and Reflection: Time constraints and initial difficulties with reflective writing were notable challenges, though most participants were able to overcome these issues as they gained more experience with reflective practice.

In conclusion, reflexive practice is a powerful tool for personal and professional growth in the field of surdopedagogy. By fostering critical self-assessment and adaptability, reflexive skills enable educators to continuously improve their teaching methods, ultimately leading to better outcomes for hearing-impaired students.

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