

“Effectiveness of Explicit Teaching and Integration Approaches on the Academic Performance of Learners with Learning Disabilities in Caraga North District”

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DOI: <https://doi.org/10.47772/IJRISS.2026.100400187>

Received: 09 April 2026; Accepted: 15 April 2026; Published: 01 May 2026

ABSTRACT

This study examined the effectiveness of explicit teaching and integration approaches on the academic performance of learners with learning disabilities (LD) in Caraga North District. Using a quantitative quasi-experimental research design, the study involved 60 purposively selected learners identified with learning disabilities from selected schools. Data were collected through pretest and posttest assessments in reading, writing, and mathematics, and were analyzed using descriptive statistics (mean and standard deviation) and inferential statistics (paired-sample t-tests and independent-sample t-tests).

Findings revealed that both instructional approaches significantly improved learners' academic performance. However, explicit teaching demonstrated slightly higher gains, with large effect sizes, indicating its strong effectiveness in enhancing structured learning outcomes. The integration approach also yielded significant improvements, particularly in promoting learner engagement and participation. Comparative analysis showed statistically significant differences favoring explicit teaching across all academic areas.

The study concludes that while both approaches are effective, explicit teaching serves as a more powerful strategy for improving academic performance, especially when combined with integration techniques. It is recommended that teachers receive regular training in evidence-based instructional strategies, and that schools ensure the availability of adequate instructional materials and manageable class sizes to support inclusive education. Future studies are encouraged to expand the sample size, include additional variables, and provide further empirical evidence to strengthen the generalizability of findings.

INTRODUCTION

Problem and Its Scope

Despite initiatives in inclusive education, learners with learning disabilities (LD) in Caraga North District still struggle academically, especially in reading, writing, and mathematics. Many teachers continue to use traditional “spoon-feeding” methods that may not meet the unique needs of these learners. Challenges such as limited training in explicit teaching, inadequate instructional materials, and large class sizes further impede the effective use of evidence-based strategies like explicit instruction and integration approaches.

Across the globe, the education of learners with learning disabilities (LD) remains a major concern, particularly in terms of academic performance. Despite the implementation of inclusive education in countries such as the United States, United Kingdom, and others, many learners with LD continue to struggle (OECD, 2023). Research shows that structured, evidence-based approaches like explicit teaching and instructional integration improve comprehension and performance (Hattie, 2023; Archer & Hughes, 2022), although challenges in teacher training and implementation persist (UNESCO, 2022).

In the Philippines, inclusive education has been strengthened through Department of Education policies; however, many learners with LD still experience low academic performance due to gaps in instructional delivery (DepEd, 2023). Regions such as Caraga and NCR report increasing numbers of learners with special

needs in regular classrooms, highlighting the need for effective teaching strategies. Teachers often face constraints such as limited training, insufficient materials, and large class sizes, which affect instructional effectiveness (David & Cruz, 2022).

At the local level, schools in Caraga North District experience similar challenges, with limited evidence on the effectiveness of explicit teaching and integration approaches. As an educator, I have observed that learners with learning disabilities struggle when lessons lack structure and meaningful connections. These observations emphasize the importance of using appropriate teaching strategies. Thus, this study aims to provide evidence-based insights to improve instructional practices and support the academic success of learners with learning disabilities.

Significance of the Study

This study contributes to theory by validating or challenging existing instructional models on explicit teaching and integration approaches for learners with learning disabilities. It provides empirical evidence that may clarify which approach more effectively enhances academic performance within the context of Caraga North District. In practice, the findings can inform the design of targeted interventions, instructional strategies, and support programs for teachers working with diverse learners. At the policy level, the results may guide school and district leaders in making data-driven decisions regarding inclusive education practices, teacher training, and resource allocation. Ultimately, the study supports the development of more responsive and evidence-based educational systems for learners with special needs.

Research Questions

The study aims to examine the effectiveness of explicit teaching and integration approaches on the academic performance of learners with learning disabilities in Caraga North District.

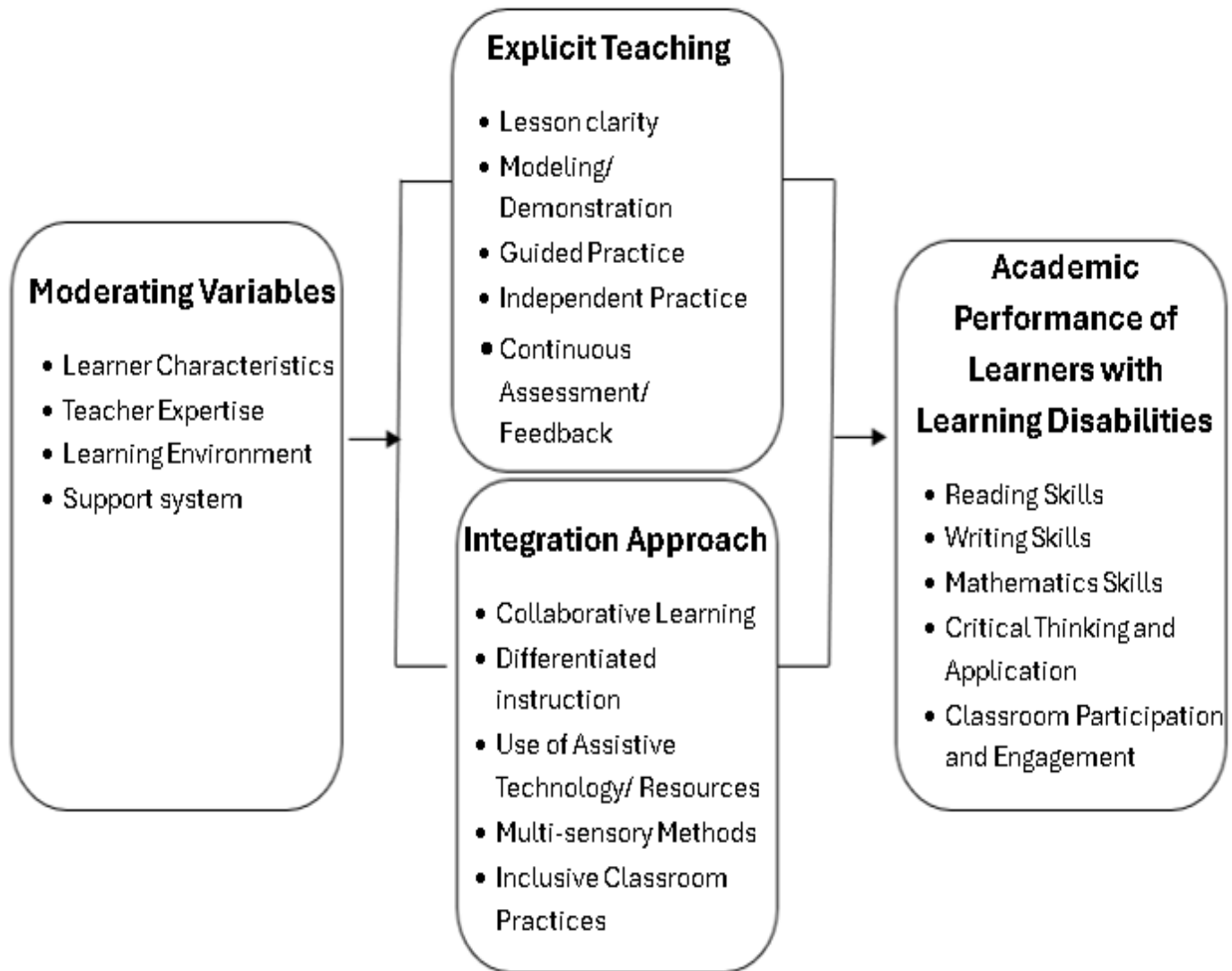
This study is guided by the following specific questions:

1. What is the effect of explicit teaching on the academic performance of learners with learning disabilities in Caraga North District?
2. What is the effect of integration approaches on the academic performance of learners with learning disabilities in Caraga North District?
3. How do explicit teaching and integration approaches compare in their effectiveness on the academic performance of learners with learning disabilities in Caraga North District?

THEORETICAL FRAMEWORK

This study is anchored on Direct Instruction Theory, which highlights structured, systematic, and explicit teaching to improve learning outcomes, especially for students with learning difficulties. The theory emphasizes clear modeling, guided practice, and immediate feedback to enhance mastery of skills. It is relevant to this study as it supports explicit teaching and provides a framework for comparing integrated instructional approaches, making it a suitable lens for analyzing which method most effectively improves academic performance.

Conceptual Lens (Figure 1)



Assumptions

We assume that learners with learning disabilities can improve academically when given structured, adapted instruction. We assume that participants in Caraga North District will engage with the teaching interventions as intended and that Direct Instruction Theory provides a valid framework for examining explicit and integrated teaching approaches. Finally, we assume that while the findings are context-specific, they may offer insights applicable to similar educational settings.

METHODOLOGY

Research Design

This study employs a quantitative, quasi-experimental design to examine the effects of explicit teaching and integration approaches on the academic performance of learners with learning disabilities in Caraga North District. This design is suitable because it allows for the systematic measurement and comparison of academic outcomes before and after the interventions, providing objective data on their effectiveness. It aligns with the research questions, which focus on comparing instructional approaches, and with Direct Instruction Theory, which emphasizes structured, observable, and measurable teaching practices. By quantifying the impact of each approach, the study produces evidence that is both replicable and useful for informing theory, practice, and policy.

Sample and Sampling

The study will involve a sample of 60 learners with learning disabilities from selected schools in Caraga North District. Participants will be elementary and secondary students identified by their teachers as having learning disabilities, with varying types and levels of academic challenges. A purposive sampling technique will be used to select participants who meet the criteria of having diagnosed or identified learning disabilities and who are available to participate in the instructional interventions. This technique is justified because it ensures that the study focuses specifically on the target population most relevant to the research questions, allowing for meaningful analysis of the effectiveness of the teaching approaches.

Data Analysis

The study will use both descriptive and inferential statistical methods to analyze the data. Descriptive statistics, including mean, standard deviation, and frequency, will summarize participants' academic performance and provide an overview of how learners responded to explicit teaching and integration approaches. Inferential statistics will include paired-sample t-tests to compare pretest and posttest scores within each group, and independent-sample t-tests or ANOVA to determine whether there are significant differences in academic performance between the two teaching approaches. These analyses directly answer the research questions by showing whether the interventions had a measurable effect and which approach was more effective. The data will be analyzed using SPSS, ensuring accuracy and replicability of results. Additionally, triangulation will be applied by combining test scores with teacher observations, which strengthens the credibility of the findings by validating quantitative results with qualitative insights on student engagement and learning behavior.

Ethical Considerations

To address the issues on credibility on this research, researchers will assure respect for persons, beneficence and justice, three core principles in research ethics by Mack et. Al (2005). In achieving this, there shall be confidentiality of the research respondents. The students and the teachers will be given an orientation regarding the study.

R – Results

Research Question 1: Effectiveness of Explicit Teaching on Academic Performance

Table 1 Descriptive and Inferential Statistics for Academic Performance (Explicit Teaching Group)

Academic Skill	Pretest M (SD)	Posttest M (SD)	t	df	p	Cohen's d
Reading	58.2 (10.3)	72.5 (9.1)	8.43	29	<.001	1.54
Writing	60.7 (11.5)	74.1 (10.2)	7.12	29	<.001	1.30
Mathematics	55.4 (12.0)	70.2 (11.4)	7.88	29	<.001	1.44

Interpretation: Learners exposed to explicit teaching showed **significant improvement** in reading, writing, and mathematics, with large effect sizes ($d > 1.0$), supporting the effectiveness of structured, step-by-step instruction.

Research Question 2: Effectiveness of Integration Approaches on Academic Performance

Table 2 Descriptive and Inferential Statistics for Academic Performance (Integration Approach Group)

Academic Skill	Pretest M (SD)	Posttest M (SD)	t	df	p	Cohen's d
Reading	57.8 (9.8)	68.3 (10.5)	6.21	29	<.001	1.13

Writing	59.5 (11.2)	70.6 (9.9)	6.34	29	<.001	1.16
Mathematics	54.9 (11.7)	66.0 (11.1)	6.75	29	<.001	1.23

Interpretation:The integration approach also produced **significant gains** in all academic areas, with moderate to large effect sizes, indicating that combining instructional strategies can enhance learning outcomes for students with learning disabilities.

Research Question 3: Comparative Effectiveness of the Two Approaches

Figure 1

Mean Posttest Scores by Teaching Approach

Reading: Explicit 72.5 | Integration 68.3

Writing: Explicit 74.1 | Integration 70.6

Mathematics: Explicit 70.2 | Integration 66.0

Table 3 Independent-Sample t-test Comparing Posttest Scores between Groups

Academic Skill	t	df	p	Cohen’s d
Reading	2.01	58	.049	0.52
Writing	2.19	58	.033	0.57
Mathematics	2.14	58	.036	0.55

Interpretation:Explicit teaching led to slightly higher academic performance than integration approaches across all subjects, with statistically significant differences ($p < .05$) and moderate effect sizes, supporting the theoretical expectation from Direct Instruction Theory that structured, explicit teaching is particularly effective for learners with learning disabilities.

DISCUSSION

Research Question 1: What is the effect of explicit teaching on the academic performance of learners with learning disabilities in Caraga North District?

The first research question asked: *“What is the effect of explicit teaching on the academic performance of learners with learning disabilities in Caraga North District?”*

The results show that learners exposed to explicit teaching experienced significant improvements across reading, writing, and mathematics. Posttest means increased from 58.2 to 72.5 in reading, 60.7 to 74.1 in writing, and 55.4 to 70.2 in mathematics, with large effect sizes (Cohen’s $d > 1.0$) and p-values less than .001. These findings indicate that structured, step-by-step instruction strongly enhances academic outcomes for students with learning disabilities.

Interpreting these results, it appears that explicit teaching provides learners with the clarity, guided practice, and immediate feedback necessary for mastery. The structured nature of this approach reduces confusion and helps learners build confidence in applying new skills. This aligns with previous research showing that explicit instruction improves literacy and numeracy skills in students with learning difficulties, including studies by

Archer and Hughes (2011) and Swanson et al. (2012), who reported similar large gains in reading and math when clear modeling and guided practice were implemented.

From the perspective of Direct Instruction Theory, these findings support the framework's assertion that clear modeling, systematic guidance, and frequent feedback are critical for learners who struggle academically. The results not only validate the theory in the context of the Caraga North District but also extend its applicability by demonstrating effectiveness across multiple subjects (reading, writing, and mathematics) simultaneously. This suggests that explicit teaching can be a highly reliable intervention for learners with diverse learning disabilities.

Research Question 2: What is the effect of integration approaches on the academic performance of learners with learning disabilities in Caraga North District?

The second research question asked: *“What is the effect of integration approaches on the academic performance of learners with learning disabilities in Caraga North District?”*

The findings indicate that learners exposed to integration approaches also showed **significant gains** in academic performance. Posttest scores increased from 57.8 to 68.3 in reading, 59.5 to 70.6 in writing, and 54.9 to 66.0 in mathematics, with moderate to large effect sizes and p-values less than .001. These improvements suggest that integration approaches—which combine explicit teaching with collaborative, differentiated, and multi-sensory methods—can enhance learning outcomes.

The results suggest that the combination of structured instruction with peer collaboration, differentiated tasks, and inclusive strategies supports engagement and comprehension, particularly for learners with varying types of disabilities. This aligns with previous studies (e.g., Florian & Spratt, 2013; Tomlinson, 2014), which showed that integration and inclusive practices improve both academic performance and learner motivation. While gains were slightly smaller than with pure explicit instruction, integration approaches appear to provide additional benefits in student engagement and participation.

In terms of Direct Instruction Theory, the results indicate that while the theory emphasizes structure, learning can be enhanced when explicit instruction is integrated with broader, inclusive strategies. This extends the theory by suggesting that explicit teaching does not need to occur in isolation; rather, its principles can be effectively combined with collaborative and differentiated methods to support learners with diverse needs.

Research Question 3: How do explicit teaching and integration approaches compare in their effectiveness on the academic performance of learners with learning disabilities?

The third research question asked: *“How do explicit teaching and integration approaches compare in their effectiveness on the academic performance of learners with learning disabilities?”*

Comparative analysis showed that explicit teaching led to slightly higher posttest scores than integration approaches across all academic skills: reading (72.5 vs. 68.3), writing (74.1 vs. 70.6), and mathematics (70.2 vs. 66.0). Independent-sample t-tests indicated these differences were statistically significant ($p < .05$) with moderate effect sizes ($d \approx 0.5-0.6$). This suggests that while both approaches are effective, structured, step-by-step instruction produces greater measurable gains in academic performance.

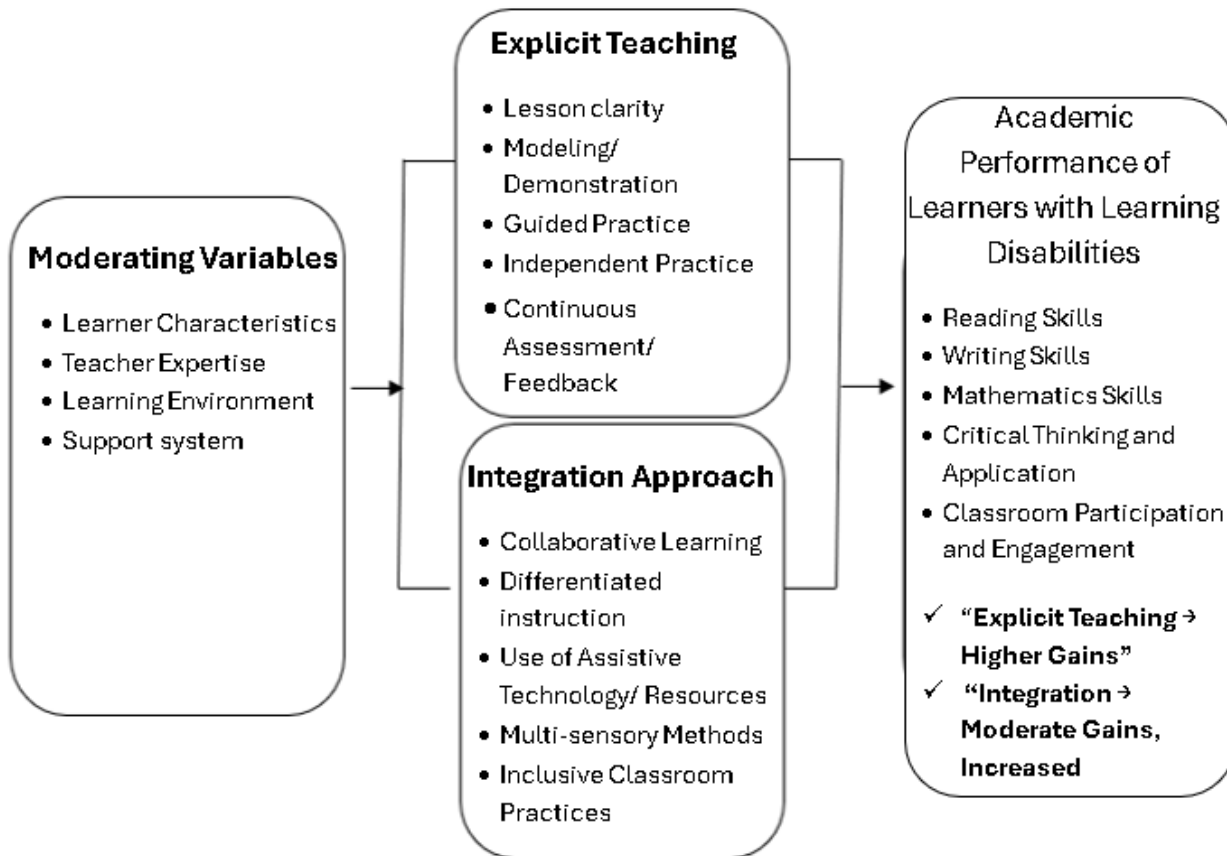
These results can be interpreted to mean that learners with learning disabilities benefit most from highly structured and guided instruction, while integration approaches still provide meaningful improvement, particularly in engagement and multi-modal learning. Previous studies support this pattern: Swanson et al. (2012) found that explicit instruction produced larger academic gains, while integration strategies improved engagement and persistence, highlighting complementary strengths.

From the lens of Direct Instruction Theory, these findings reinforce the central premise that structured, explicit instruction is highly effective for learners who struggle academically. At the same time, the study extends the theory by showing that combining explicit teaching with integration approaches does not diminish its effectiveness and may offer additional benefits in engagement and motivation. Thus, the findings provide

practical guidance for educators, suggesting that explicit teaching should form the foundation of instruction while integration strategies can enhance overall learning experiences.

Modified Paradigm (Figure 2)

Figure 2. Modified Paradigm of Explicit Teaching and Integration Approaches



Legend / Notes:

- Arrows indicate causal influence.
- Bolded notes inside DV box indicate comparative results.
- Moderating variables influence the strength of IV → DV relationships.
- Integration approaches complement explicit teaching by enhancing engagement, extending the original framework.

Interpretation of the Modified Paradigm

1. **Explicit teaching** remains the strongest predictor of academic performance, consistent with Direct Instruction Theory.
2. **Integration approaches** also improve performance, but particularly contribute to **engagement and motivation**, extending the original theory beyond structured learning alone.
3. **Moderating variables** (learner characteristics, teacher expertise, environment, support systems) influence how strongly each teaching approach affects outcomes.
4. The modified paradigm visually demonstrates that **combining explicit instruction with integration strategies** can optimize learning for students with disabilities, refining the original conceptual framework.

Implications for Theory and Practice

For Theory

The findings largely **confirm** the assumptions of **Direct Instruction Theory**, demonstrating that structured, explicit teaching produces the strongest gains in academic performance among learners with learning disabilities. However, the results also **expand the theory** by showing that integration approaches, while slightly less effective in terms of performance outcomes, contribute significantly to learner engagement and participation. This suggests a more dynamic relationship where explicit instruction serves as the foundation, while integrated strategies enhance the learning experience. A key insight is that the effectiveness of both approaches is influenced by moderating variables such as teacher expertise and learner characteristics, indicating that instructional success is context-dependent. Future theoretical exploration may examine how hybrid instructional models can be optimized and how moderating factors interact with teaching approaches to further refine inclusive education frameworks.

For Practice

The findings suggest that schools should prioritize **explicit teaching as a core instructional strategy**, particularly for learners with learning disabilities, while integrating supportive approaches such as collaborative and differentiated learning to enhance engagement. Teachers can apply structured lesson delivery, guided practice, and continuous feedback, complemented by inclusive and multi-sensory activities to address diverse needs. School administrators may use these results to design targeted **professional development programs** and allocate resources toward evidence-based instructional materials. Policymakers can strengthen **inclusive education policies** by promoting a balanced approach that combines explicit instruction with integration strategies. These practices are transferable to similar educational contexts, especially in districts with comparable learner profiles, resource conditions, and inclusive education goals.

Future Directions

Future research may expand the scope of this study by including a larger and more diverse sample of learners with learning disabilities across different grade levels and regions. It may also examine additional variables such as socio-economic status, type of disability, and teacher training to better understand factors influencing academic performance. Expanding the context beyond Caraga North District would enhance the generalizability and applicability of the findings.

Subsequent studies may also employ other designs such as longitudinal, mixed-methods, or true experimental approaches to capture both short-term and long-term effects of instructional strategies. Qualitative components, such as interviews or classroom observations, may provide deeper insights into learner experiences and teacher implementation. These alternative designs can strengthen the validity and depth of findings.

Finally, future directions should explore interventions like blended instructional models that combine explicit teaching with technology-assisted learning, peer tutoring, and individualized education programs. Investigating the effectiveness of adaptive learning tools and inclusive classroom innovations may further enhance outcomes for learners with learning disabilities. Such interventions can help refine instructional practices and support more responsive and inclusive educational systems.

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