



BRIDGING DIVERSITY IN LEARNING: TEACHERS' PERCEPTIONS AND PRACTICES OF DIFFERENTIATED INSTRUCTION IN INCLUSIVE CLASSROOMS

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ABSTRACT

Differentiation Instruction (DI) has been widely acknowledged as an effective teaching strategy to meet the needs of a diverse learner in an inclusive classroom. The present research examined the perceptions of DI practices by teachers with respect to perceived benefits, challenges, attitudes, and self-efficacy. The quantitative descriptive survey design was utilized, and a structured Likert questionnaire was used to gather data on 72 teachers, who worked in inclusive schools. The tool has been reviewed by the professionals and was proven to have satisfactory reliability. The data was analyzed using descriptive statistics such as means and standard deviations. The results showed that teachers have a positive attitude towards DI. The majority of the respondents responded that DI does increase student engagement, academic performance, and especially among students with disabilities, and increases inclusiveness by minimizing achievement gaps ($M \approx 4.00-4.17$). Teachers also admitted that DI gives flexibility in the teaching practices, creativity and enhances the interaction between teachers and students. Nonetheless, a number of issues are an impediment to successful implementation. The key obstacles created were: absence of instructional materials ($M = 4.15$), large curriculum requirements ($M = 4.14$), a limited amount of planning time ($M = 4.07$), and the lack of administrative support ($M = 4.04$). Moreover, the high-sized classes, different needs of learners, and the lack of cooperation with special educators were mentioned among the major limitations. Teachers were not very certain about their ability to utilize DI ($M = 3.89$), although their readiness to continue to develop DI-related skills was great ($M = 4.04$). The research shows a discrepancy between the positive attitudes and the real action. It suggests professional development that is focused, better provision of resources, and more institutional support to increase DI practices in inclusive classrooms.

Keywords: Differentiated Instruction, Inclusive Education, Teacher Perceptions, Self-Efficacy, Classroom Diversity.

INTRODUCTION

The idea of inclusive education has taken a focal place in the education system all over the world and the focus in inclusive education is to give fair learning opportunities to all students irrespective of their abilities, background and learning requirements. With the growing diversity of the classrooms, educators are supposed to develop learning conditions that can support different academic levels, learning styles, and socio-emotional needs (Tomlinson, 2014). Differentiation Instruction (DI) has become one of the major pedagogical methods in this respect. DI is defined as the systematic adaptation of the content, process, product, and the environment of learning in order to accommodate the differences in the learners (Hall, Strangman, and Meyer, 2004). It is also generally considered an indispensable tool of managing

diversity in inclusive classrooms where an educator has to be able to balance the demands of standardized curriculum with the needs of both typically developing students and students with disabilities.

Perception and attitudes of teachers towards DI are critical in the successful implementation of DI. More effective differentiation can be linked to positive attitude, high levels of self-efficacy, and readiness to change the instructional practices (Wan, 2016). On the other hand, lacking knowledge or motivation, or lack of confidence may result in shallow or inconsistent implementation and, thus, compromise the objectives of inclusive education (Coubergs et al., 2017). In addition, the contextual aspects (professional training, the size of the classes, access to resources, and administrative support) play a major role in whether teachers can implement DI effectively (Hattie, 2021).

In spite of its acknowledged significance, available studies reveal that a significant number of teachers are not able to apply DI to practice. Such obstacles as insufficient training, the lack of resources, and conceptual uncertainty in the context of the fundamentals of DI are common (Gheysens et al., 2020). Moreover, there is a significant difference between the theoretical knowledge of teachers and their practice on the classroom level (Poznanski et al., 2016). This gap underscores the necessity of empirical research on the teacher perception especially in an inclusive environment where instructional needs are more complicated.

To address this requirement, the current research will utilize a survey design to explore the perception of the teachers toward DI practices in the inclusive classes in relation to their attitudes, perceived difficulties, and self-reported implementation. These perceptions need to be understood to find out the barriers, guide professional development efforts, and reinforce inclusive teaching behaviors. This study can help in the continued efforts to make instructional responsiveness a reality in various classroom settings; this is because it captures the real-life experiences of teachers.

LITERATURE REVIEW

Differentiated Instruction (DI) has become one of the key pedagogical models of the modern education, especially in the context of inclusion classes that imply a teacher to meet the needs of diverse learners. Inclusive education has heightened the requirement of versatile approaches to teaching that would accommodate the disparities in the readiness level, student-interests, and profiles of learning. DI is based on the idea that the teaching practice should not be standardized but responsive and adapting to the specifics of the learners (Tomlinson, 2014; Hall et al., 2004; Santangelo & Tomlinson, 2014). The inclusion classrooms are also complicated by the fact that students who have disabilities, learning challenges, and different cultural backgrounds are all required to receive instructional support that can be specifically adjusted in the same learning environment (McQuarrie & McRae, 2010; Ameerah, 2020). In this regard, the perception of teachers about DI has a great impact on the quality of instruction and the degree of support given to the diverse learners.

The conceptualization and knowledge of DI by the teachers is also a factor that is critical in the effective implementation of the concept. Even though the studies show that teachers do not have a negative attitude towards DI, most of them do not have a clear and detailed understanding of its main elements, content, process, product, and learning environment, and how they can be put into practice (Coubergs et al., 2017; Poznanski et al., 2016; Graham et al., 2020). Research also shows that educators tend to exaggerate their practices of DI, as they may confuse simple modifications in their instructions or changes in questions with actual differentiation (De Neve and Devos, 2017; Gheysens et al., 2020). This disorientation between what they perceive and practice points to the ongoing conceptual obscurity and indicates that most educators may apply more of an intuitive approach than a well-chosen DI model (Livingston et al., 2020).

Other than conceptual knowledge, teacher attitudes, beliefs, and self-efficacy are the most important factors affecting DI implementation. A favorable view on diversity among students and their high expectations, as well as trust in the instructional skills, have been discovered to increase the use of differentiated strategies (Wan, 2016; Dixon et al., 2014; Hattie, 2021). On the other hand, educators who have low self-efficacy or follow traditionalists and teacher-centered teaching methods have less likely to implement flexible instructional practices (Vibulphol, 2016; Subban, 2006). Moreover, stress, workload, and lack of autonomy may have a harmful impact on the readiness of teachers to differentiate instruction, even in cases when they are aware of its significance (Gheysens et al., 2020; Chambers, 2017).

There is also a considerable amount of literature which draws attention to the practical issues related to the practice of DI in the inclusive classroom. Some of the most common barriers, mentioned very often, are big classes, lack of time to plan the lesson, lack of training among professionals, and a broad diversity of learners (Prast et al., 2018; Suprayogi et al., 2017; Subban, 2006). Educational employees frequently complain that they are overwhelmed by the task of meeting the needs of individual learners and meeting the demands of the standardized curriculum at the same time (Chambers, 2017; Joseph, 2013). Also, the lack of cooperation with special educators and sufficient administrative assistance also limits successful implementation (Florian et al., 2011; Coubergs et al., 2017). Such issues lead to the fact that teachers in conceptual support of DI have difficulties with its regular application in practice.

In spite of these issues, numerous studies justify the effectiveness of DI on the performance of students. Differentiated instruction has been linked to the higher academic achievements, higher engagement, and higher socio-emotional growth (Roy et al., 2013; Tomlinson and Strickland, 2005; Ameerah, 2020). DI also proves helpful in the inclusion settings, especially to students with disabilities, because it enhances the levels of participation, achievement gaps, and a feeling of belonging (McQuarrie and McRae, 2010; Goddard and Goddard, 2016). The results emphasize the significance of perceptions of teachers, and the implementation will be effective mainly when the teachers consider DI to be practical, achievable, and beneficial (Robinson et al., 2014; Santangelo & Tomlinson, 2014).

Other sources of evidence on the role of systemic and cultural factors in the perception and practice of DI by teachers is also found in international contexts. Among educators in the United States, the significance of DI is generally accepted; however, the challenges of time and the workload are often mentioned as significant limitations (Joseph, 2013; Graham et al., 2020; Dixon et al., 2014). The same trends are observed in European studies where teachers show positive intentions but provide DI on a superficial level due to the lack of understanding of the concept or some support (Prast et al., 2018; Gheysens et al., 2020; De Neve & Devos, 2017). In Asian countries with large classes and strict curriculum (Singapore and Malaysia are not exceptions), differentiated practices were even more complicated by strict curriculum requirements and size of the classes (Aziz & Yasin, 2019; Suprayogi et al., 2017). Such cross-cultural results indicate that the perceptions of DI practiced by teachers are not only determined by personal factors but also by institutional and situational circumstances.

Research Objectives

1. To investigate the perceptions of teachers about the benefits of differentiated instructions in inclusive classrooms.
2. To determine the issues that teachers encounter in the implementation of differentiated instruction.
3. To determine the attitude of teachers towards differentiated instruction in inclusive classrooms.
4. To determine the self-efficacy of teachers in the practice of differentiated instruction.

5. To examine the general perception of teachers on the effectiveness of differentiated instruction in enhancing the teaching and learning outcomes.

Research Questions

1. How do teachers feel about the benefits of differentiated instruction in mixed classes?
2. How do teachers experience difficulties when they are implementing differentiated instruction in inclusion classes?
3. What are the attitudes of teachers to differentiated instruction?
4. How self-efficacious are the teachers in the application of the differentiated instruction practices?
5. What is the overall perception of teachers on the effectiveness of differentiated instructions on the teaching quality and student performance?

RESEARCH METHODOLOGY

Following research methodology used for the study:

Research Design

The research design was a quantitative research design that employed a descriptive survey design. The reason of using this method was because it will provide the possibility of obtaining numerical data on the attitudes of teachers, perceived challenges, and self-reported DI practices in inclusive classrooms.

Population of the Study

The study population was teachers of the inclusive classes who teach both mainstream and students with disabilities. These were the teachers who are targeted as they have a firsthand experience with DI and can offer perceptions about it in an informed manner.

Sample Size and Sampling Technique

The selection of the sample was 72 teachers. The participants were chosen through purposive sampling and qualified with the following criteria Teach in inclusive classrooms Have experience with differentiated instruction. This method allowed the selection of the participants that were relevant and knew the topic of the research.

Research Instrument

The structured questionnaire that was created by the researcher was used to gather data that could be analyzed to identify the perceptions of teachers regarding differentiated instruction (DI) in inclusive classrooms. The tool was created to measure important dimensions, such as the perceived benefits of DI, difficulties in implementing it, and attitudes and self-efficacy of teachers on the use of DI. The questionnaire was divided into two parts. Section A involved collecting demographic data like age, gender, experience in teaching career, training, and type of school. Section B contained a set of the statements related to practices of DI, benefits, challenges, and attitudes of teachers.

Section B was a five-point Likert scale that was to evaluate the degree of agreement of the respondents with each statement in terms of Strongly Disagree (1) to Strongly Agree (5). This scaling method allowed the teachers to report the strengths of their perceptions in a predetermined and measurable way that would allow statistical analysis of the attitudes of teachers towards differentiated instruction.

Validity and Reliability

In order to have content validity, conventionalists in the area of special and inclusive education revised the questionnaire. Their responses were used to reduce the level of ambiguity, irrelevancy, and ambiguity of the tool. A pilot test was later done using a selected few teachers

to determine the level of reliability of the questionnaire. Internal consistency has been calculated to have Cronbach Alpha of 0.89 and that indicates a high rate of reliability.

Data Collection Procedure

Formal approval was taken before the data were collected with the authorities of the concerned schools. The questionnaires were then given to the teachers both in printed and electronic versions depending on the availability and convenience. All respondents were free to participate in the study, and they were well informed of the objective of the study. They were also guaranteed that their responses will be confidential and will only be used in academic and research purposes.

Data Analysis Method

The statistical methods employed in the evaluation of the collected data were the descriptive statistics, such as frequencies, percentages, means and standard deviations. These were used to extract and analyze the responses of the teachers. The findings were given in a tabular manner to make it easier to comprehend and to have a holistic picture of the perception of the teachers to differentiated instruction in inclusive classes.

RESULTS

Table 1

Descriptive Statistics of Demographic Variables

Variable	N	Min	Max	Mean	Std. Deviation
Gender	72	1	2	1.64	0.484
Age	72	1	4	1.92	0.687
Teaching Experience	72	1	6	2.67	1.311
Qualification	72	3	7	4.51	0.731

Table 1 presents the descriptive statistics of the demographic characteristics of the respondents. The results indicate variation in age, teaching experience, and qualifications among participants. The mean values suggest that most teachers fall within lower to mid categories of age and experience, while qualification levels are relatively higher. The standard deviation values indicate moderate variability among respondents, reflecting a reasonably diverse sample.

Table 2

Teachers' Perceptions of Advantages of Differentiated Instruction

Statement	N	Min	Max	Mean	Std. Deviation
DI helps meet diverse learning needs	72	1	5	3.96	0.971
DI increases engagement and motivation	72	1	5	4.01	0.880
DI improves academic performance (SWD)	72	1	5	4.17	0.769
DI promotes inclusion and reduces gaps	72	2	5	4.10	0.695
DI allows flexible teaching strategies	71	1	5	4.13	0.675
DI builds confidence and independence	72	1	5	4.07	0.678
DI supports social interaction	72	1	5	3.99	0.813
DI adapts lessons to readiness/interests	72	1	5	4.15	0.685
DI encourages creativity and thinking	72	1	5	3.97	0.750
DI improves teacher–student interaction	72	1	5	4.03	0.731

Table 2 illustrates teachers' perceptions regarding the advantages of differentiated instruction. The findings reveal generally high mean scores (M = 3.96–4.17), indicating strong agreement among teachers about the benefits of DI. The highest mean was observed for improving

academic performance of students with disabilities ($M = 4.17$), followed by adapting lessons to student readiness ($M = 4.15$). These results suggest that teachers perceive DI as an effective approach for enhancing inclusion, engagement, and learning outcomes. The relatively low standard deviation values indicate consistency in responses.

Table 3
Challenges in Implementing Differentiated Instruction

Statement	N	Min	Max	Mean	Std. Deviation
Large class sizes	72	1	5	3.82	1.053
Limited planning time	72	2	5	4.07	0.757
Lack of training	72	2	5	3.96	0.911
Lack of resources	72	1	5	4.15	0.816
Diverse learner needs	72	1	5	3.86	0.810
Heavy curriculum demands	72	2	5	4.14	0.657
Lack of administrative support	72	1	5	4.04	0.740
Limited collaboration with special educators	72	1	5	3.99	0.896
Balancing curriculum and individual needs	72	1	5	3.96	0.777
Stress and workload	72	1	5	3.99	0.741

Table 3 presents the challenges faced by teachers in implementing differentiated instruction. The results indicate that teachers encounter multiple barriers, with lack of resources ($M = 4.15$) and heavy curriculum demands ($M = 4.14$) being the most significant challenges. Limited planning time and administrative support were also reported as major concerns. Although large class sizes and diverse learner needs pose difficulties, their slightly lower mean values suggest relatively moderate agreement. Overall, the findings highlight systemic and contextual constraints affecting DI implementation.

Table 4
Teachers' Attitudes and Self-Efficacy towards Differentiated Instruction

Statement	N	Min	Max	Mean	Std. Deviation
Confidence in using DI	72	1	5	3.89	0.742
DI is beneficial for all students	72	1	5	3.76	1.014
Willingness to learn DI strategies	72	2	5	4.04	0.615
DI improves teaching quality and outcomes	72	2	5	4.17	0.712

Table 4 shows teachers' attitudes and self-efficacy regarding differentiated instruction. The findings indicate generally positive attitudes, with the highest mean score for the belief that DI improves teaching quality and student outcomes ($M = 4.17$). Teachers also demonstrated a strong willingness to continue learning and applying DI strategies ($M = 4.04$). However, slightly lower mean values for confidence ($M = 3.89$) and belief in universal benefits ($M = 3.76$) suggest some uncertainty in implementation. Overall, the results reflect a positive yet developing level of teacher readiness for DI.

DISCUSSION

The results of the current research are valuable in terms of giving valuable information about perceptions held by teachers of differentiated instruction (DI) in an inclusive classroom, which directly responds to the outlined research goals and questions. All in all, the findings show that teachers have positive views on the benefits of DI. The results of the high mean scores on the

items related to student engagement, academic performance, and inclusion show that teachers are aware that DI is an effective method of meeting diverse learning needs. Specifically, the high consensus on the effectiveness of DI in improving the academic achievement of students with disabilities and the teaching quality is consistent with the prior research (Tomlinson, 2014; Roy et al., 2013) and supports the opinion that DI is a useful tool to help ensure that students with disabilities have an equal opportunity to learn.

In spite of positive perceptions, the study also presents various challenges that prevent the successful use of DI. Teachers claimed that they lacked instructional resources, curriculum demands, lack of time to plan, and the lack of administrative support were a significant barrier. These results are in line with previous research (Prast et al., 2018; Suprayogi et al., 2017), which highlights that structural and institutional barriers are significant barriers to teachers implementing differentiation. Also, other issues, like high classroom sizes and the heterogeneity of the needs, make the process of implementation even more challenging, which means that in most cases, teachers have to work in rather challenging conditions that could limit the degree of instructional flexibility.

As far as attitudes and self-efficacy are concerned, the findings indicate that teachers usually have a positive attitude towards DI and the desire to implement and continue to improve differentiated practices is strong. Nevertheless, their certainty toward the application of DI is relatively mediocre implying a disconnection between faith and practice. This observation helps to argue that although teachers appreciate DI, they might not possess the proper training and capabilities or have essential support to implement it in a productive way (Gheysens et al., 2020). The comparatively reduced confidence rates also state that constant professional growth and capacity-building should be implemented.

Regarding the total effectiveness, teachers mostly believe that DI is a positive method that makes the teaching process better and helps to improve student outcomes. But the co-existence of the positive perceptions and practical challenges implies there is an urgent gap in theory and implementation. The difference highlights the significance of considering the contextual barriers, enhancing the resources access, and reinforcing institutional support systems. In this way, the educational stakeholders will be able to prepare educators to respond to their positive perceptions of DI and implement them into their classroom activities to promote the purposes of inclusive education.

CONCLUSION

The given research paper analyzed the perceptions of the teachers towards differentiated instruction (DI) in inclusive classes, its benefits, obstacles, and attitudes, as well as their self-efficacy. The results indicate that teachers usually have positive attitudes towards DI and acknowledge its importance in improving student engagement, academic performance especially in students with disabilities and inclusive learning. Teachers also admitted that DI helps to promote flexibility in the teaching process and enhances interaction between teachers and their students. Nevertheless, in spite of these positive perceptions, DI implementation has been hindered with a number of challenges, such as absence of instructional resources, heavy curriculum demands, a lack of time in planning and a lack of administrative support.

Moreover, the teachers were found to be positive with a great desire to implement DI practices, but were intermediate in confidence of their ability to do the same. This means that there is disconnect between theoretical knowledge and practical implementation of DI among teachers. In general, the research concludes that in spite of high levels of appreciation and perceived effectiveness of differentiated instruction, it cannot be implemented effectively without the significant institutional support, proper resources, and specific professional development. It is critical that these aspects be dealt with to close the perception to practice gap and to help achieve the inclusive education objectives.

RECOMMENDATIONS

Following recommendations were made:

1. It is suggested that schools and other educational bodies should arrange frequent training and workshops on practical use of differentiated instruction. The objective of these programs should be to empower teachers with functions, understanding and confidence in the capability to implement DI strategies in inclusive classes.
2. Schools are supposed to make sure that there are sufficient instructional materials, fewer theories are taught in the curriculum and administrative help to encourage DI implementation should be offered. Teachers can be empowered through supportive policies and working conditions to meet the needs of different learners better.
3. Schools must promote interactions between special and general education teachers in a bid to foster effective differentiation. Co-teaching, shared planning time, and professional learning communities are some of the strategies that can be used to help the teachers share strategies, lessen the workload, and enhance the quality of inclusive instruction.

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