

Teaching Every Child: The Practice of Differentiated Instruction in Primary Schools of Addis Ababa

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Abstract

The Ethiopian education system faces significant challenges, including low student engagement, poor academic performance, and increasing disparities. Differentiated instruction aims to address these issues by catering to diverse learner needs to promote equity and improve outcomes. This study was conducted to assess how differentiated instruction (DI) is practiced through various strategies. A case study of nine selected primary schools in Addis Ababa was used, employing a mixed-method approach. Data were collected from 200 teachers and 9 school administrators using simple random and purposive sampling methods, respectively. Information was collected through questionnaires and interviews. The results showed that teachers often lack the necessary knowledge and skills to implement DI effectively. Additional obstacles included low motivation, heavy workloads, large class sizes, and the lack of in-service and pre-service training. Moreover, teacher education programs were found to offer limited exposure to current educational theories and concepts. As a result, most teachers continue to rely on a one-size-fits-all teaching approach. The study recommends that to improve DI practice, teachers should undergo both short- and long-term training on DI strategies. School-based Continuous Professional Development (CPD) programs should incorporate DI topics, and teachers should be allocated sufficient time for lesson planning and preparation, rather than merely covering syllabus content. Additionally, teacher education curricula and national policy frameworks should be revised to incorporate modern educational principles, and universities should include courses on differentiated instruction. Finally, further research is recommended to explore effective ways of implementing DI in similar educational contexts.

Keywords: differentiated instruction, instructional strategies, primary school

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Introduction

All learners have the right to access education equally and fairly. Research shows that when students learn in responsive classrooms where they are seen as individuals and their learning needs are supported, their attitudes and academic performance improve (Ryan & Cooper, 2007). However, many studies indicate that a lot of children who initially enroll in school eventually drop out because of unengaging teaching methods and assessment practices that label them as poor performers.

Traditionally, education systems depend on teacher-centered methods, with uniform instructional strategies for all students. Dryden and Vos (2005) pointed out that many educators worldwide still rely on outdated methods like the blackboard-and-chalk approach. This “one-size-fits-all” model failed to acknowledge the diverse needs of learners, as emphasized by McBride (2004), Tomlinson (2003), and Willis and Mann (2000). In today’s increasingly diverse classrooms, such traditional methods have proven ineffective. To ensure academic success

for all students, teachers must adopt differentiated instruction, a teaching philosophy that caters to the varying abilities, interests, and cultural backgrounds of learners (Moon, 2005).

In the Ethiopian education system, student-centered teaching is defined as an approach that responds to the needs of each learner (MOE-TESO, 2003). Ethiopia officially adopted active learning strategies following the enactment of its 1994 Education and Training Policy. This policy and its associated documents endorse new pedagogical approaches by giving different terminology, including learner-centered methods, child-centered learning, and non-traditional instruction. The major aim of these approaches is to create inclusive and engaging learning environments that address the diverse needs of all students.

For learner-centered education to be effectively implemented in Ethiopian classrooms, teachers must effectively participate in school continuous professional development programs and get support from experts in the area. Teacher education programs should emphasize new concepts like differentiated instruction, active learning strategies, and inclusive assessment methods that recognize and value students' individual differences. Moreover, schools and education leaders must create environments that encourage innovation and collaboration among teachers. When educators are empowered to design lessons that engage all learners regardless of background or ability, the vision of equitable and quality education outlined in Ethiopia's Education and Training Policy can be fully realized. Ultimately, student-centered teaching not only increases academic achievement but also nurtures creativity, confidence, and lifelong learning skills among learners (MoE, 2003).

Nowadays, addressing learner diversity in the classroom has become a major concern for effective instruction. Education systems around the world are historically challenged by increasingly diverse student populations and their varying needs. Ethiopia, as an ancient and culturally rich nation, has people from diverse cultural, linguistic, gender, economic, and religious backgrounds. Therefore, learners in Ethiopian classrooms have varied interests, learning styles, needs, and personal attributes. Students come to school with different preferences, prior knowledge, languages, communication skills, and levels of readiness to learn. This diversity has increased the need to adapt curricula and teaching methods to ensure that learning is accessible and meaningful for everyone. As a result, it is no longer effective to teach all students using the same lesson plan. To provide fair, equal, and meaningful opportunities for every student to achieve a high-quality education, teachers must implement differentiated instruction. Teachers who differentiate instruction intentionally plan lessons to meet the needs of academically diverse learners.

However, according to local research by Kenea (2010) on diversity practices, the education system doesn't consider the country's diverse nature. So, the education system has not yet adequately addressed diversity. Although Tomlinson's (2008) proposal for differentiated instruction addresses many of the deficiencies of the traditional, positivist paradigm by encouraging a more student-centered approach, it doesn't fully consider several personal factors that influence learning, such as students' socioeconomic status, self-perception, and life experiences outside of school. While the theory of differentiation aims to promote equity by responding to students' needs, education systems often continue to emphasize rising standards and measurable test results. In every classroom, each student is unique, and what engages or benefits one learner may not have the same effect on another. The teacher, who holds the key to successful differentiation, faces the challenge of facilitating learning for students with differing readiness levels, interests, learning profiles, socioeconomic and cultural backgrounds, and emotional characteristics, all of which influence how new knowledge is constructed (Tomlinson, 2003). Therefore, teachers must recognize these differences and develop the skills needed to differentiate instruction so that all students, not just some, can learn effectively. One practical approach is for teachers and schools to create learner profiles that capture each student's background, learning style, interests, and learning gaps.

Nevertheless, the current teacher education curriculum in Ethiopia does not adequately prepare teachers to apply educational theories such as differentiated instruction. As a result, it is unrealistic to expect most teachers to implement differentiated instruction effectively in their classrooms. Despite this limitation, there are still feasible strategies that can be applied within Ethiopian classrooms to support diverse learners. There are challenges to implementing differentiated instruction in Ethiopia. Consequently, this research aimed to assess the practice of differentiated instruction, with particular focus on the strategies in five selected primary schools in Addis Ababa.

Review of Related Literature: Conception of Differentiated Instruction **Concept of Differentiated Instruction**

Classroom diversity manifests across multiple dimensions, shaping the design and implementation of instruction. According to Tomlinson (2011), students' readiness levels, interests, and learning profiles constitute pivotal

factors for effective differentiation. Moreover, Tomlinson (2007) underscores the heterogeneity that exists even among students seated side by side, encompassing individuals with learning disabilities, highly able or gifted learners, English language learners, chronically underachieving students, and learners from diverse cultural and socioeconomic backgrounds. Such variability necessitates instructional approaches that are responsive, flexible, and attuned to the distinctive needs of each learner.

Differentiated instruction (DI) refers to the process of adapting teaching methods, content, and assessments to meet the diverse needs, skills, and interests of students in a classroom. It emphasizes that students do not learn in the same way, and their individual differences should be taken into account to foster effective learning. Tomlinson (2003) emphasizes that differentiation involves modifying content, processes, and products in response to students' readiness levels, interests, and learning profiles. This approach contrasts with traditional, one-size-fits-all teaching methods by prioritizing students' unique learning needs (Tomlinson, 2003).

According to Willis and Mann (2000), differentiation involves recognizing and embracing student diversity in a way that allows each student to thrive in the classroom. Teachers using differentiated instruction are expected to employ a variety of teaching strategies, such as flexible grouping, varied instructional materials, and differentiated assessments, to create a more inclusive learning environment. Furthermore, Heacox (2002) suggests that differentiation requires teachers to consider not only the pace and complexity of the content but also the method of delivery, ensuring that learning is accessible to all students, regardless of their starting point.

Differentiated instruction (DI) is grounded in the theoretical work of Tomlinson, who argues that teachers should adjust content, process, product, and learning environment to address learners' varying readiness, interests, and learning profiles. This framework positions diversity as an asset that requires purposeful instructional planning rather than uniform teaching. Empirical studies consistently support these theoretical assumptions. Research in Singapore and other high-performing systems indicates that teachers frequently differentiate through flexible grouping, tiered assignments, and scaffold questioning, particularly in mixed-ability classrooms. However, the depth of implementation varies widely. For instance, case studies in Singaporean primary schools reveal that while teachers value the DI conceptually, they often adapt it in limited ways due to time constraints, standardized assessment pressures, and varying levels of professional confidence. Studies involving students with special educational needs (SEN) further show that DI is most successful when supported by collaborative structures such as co-teaching and the involvement of allied educators (Heng, 2024). Overall, the literature suggests that DI has strong theoretical justification and demonstrated classroom benefits, but its effectiveness depends heavily on contextual supports, especially teacher training, administrative encouragement, and adequate planning time. These findings highlight the need for sustained professional learning and school-wide commitment to ensure consistent DI practice.

Differentiation Strategies

Implementing differentiated instruction requires careful planning and the use of specific strategies designed to address student diversity. Tomlinson (2017) identified four primary areas of differentiation: content, process, product, and learning environment. These dimensions serve as a framework for teachers to organize their teaching practices in a way that supports students' varying learning needs.

In practice, these areas of differentiation overlap, and teachers use a combination of strategies tailored to their students' needs. To differentiate instruction, as Tomlinson (2001) suggests, teachers should implement different instructional strategies based on the above four dimensions of differentiation (content, process, product, and learning environment). All instructional strategies are equally engaging and respectful and take approximately the same amount of time. Tomlinson proposed more than eighteen strategies to differentiate instruction (Tomlinson, 2013). But for the sake of this research, the researcher tried to select nine strategies that are appropriate to our classrooms. These are: pre-assessment data, learning profile, varying assessment, varying modes of teachers' presentation, flexible grouping, varying questions, addressing different senses, varying instructional materials, and paced time.

Challenges in Implementing Differentiated Instruction

Although differentiated instruction is a powerful pedagogical approach, its implementation comes with a range of challenges. Teachers often face difficulties related to classroom management, time constraints, and large class sizes, which can make it hard to plan and deliver differentiated lessons effectively (Solomon, 2020). In Ethiopia, similar issues have been identified, where Kenea (2010) found that teachers are often unable to meet the diverse needs of students due to insufficient support and resources. This is exacerbated by high student-to-teacher ratios, making it difficult to provide individualized attention.

Tadesse (2015) noted that many teachers in Ethiopian primary schools have limited knowledge of differentiation strategies, primarily due to the lack of proper training during pre-service education. Even though many teachers recognize the importance of adapting instruction to diverse learners, they struggle to apply DI strategies effectively in their classrooms because of a lack of professional development opportunities and heavy workloads. Furthermore, Solomon (2020) revealed that teachers, though aware of the theoretical aspects of DI, often fail to integrate these principles into practice due to constraints such as limited time for lesson planning, insufficient instructional materials, and a lack of leadership support. Moreover, implementing differentiated instruction effectively requires a collaborative school culture, which, according to Popova, Evans, & Arancibia (2022), is often absent in schools where teachers work in isolation. Without the support of fellow educators or school leaders, individual teachers may find it difficult to maintain consistent differentiation practices.

Research Methodology

Research Design

This study employed an embedded mixed-methods design, which integrates qualitative and quantitative approaches within a single investigation (Wuegbuzie & Johnson, 2006). According to Creswell (2012), combining these methods helps to minimize the limitations inherent in relying on a single research approach, thereby strengthening the overall validity and depth of the findings. The embedded design was selected because it enables the simultaneous collection, analysis, and interpretation of both qualitative and quantitative data, allowing each method to enrich and complement the other (Creswell, 2003).

Within this mixed-methods framework, the research adopted a case study design to provide an in-depth examination of the current practices of differentiated instruction in two selected primary schools in Addis Ababa. The case study approach was appropriate because it allows for a detailed investigation of real-life educational practices within their natural context. Specifically, the study sought to explore (a) the extent to which teachers implement differentiated instruction strategies, and (b) their level of understanding regarding differentiated instruction. The use of an embedded mixed methods case study, therefore, enabled a comprehensive and contextually grounded understanding of the phenomenon under investigation.

Source of Data

To obtain the relevant data, the researcher used a primary source. The source had two categories: teachers and school principals.

Sample size and sampling techniques

The researcher selected nine primary schools with purposive sampling techniques based on the geographical location of the researcher. From each sample school, twenty teachers were identified randomly, and one school principal was selected by purposive sampling techniques.

Data collection instruments

Data were collected using two main instruments: questionnaires and interviews.

Questionnaire: The primary data collection tool was a questionnaire administered to teachers, who are the primary implementers of differentiated instruction (DI) in the classroom. The questionnaire was adapted from Tomlinson's (2005) DI strategies and contextualized for the local setting. It comprised five closed-ended items measured on a Likert scale ranging from 1 (never) to 5 (neutral), with 2 (usually), 3 (sometimes), and 4 (always) as intermediate points. This instrument assessed the frequency with which teachers used DI strategies.

Interview: Semi-structured interviews were conducted to explore teachers' knowledge and understanding of DI, the practice of DI. Interviews included principals, vice principals from both schools, and six selected teachers. These interviews aimed to gather insights on school facilities, support systems, and factors influencing the implementation of DI. The interviews were conducted by the researcher using open-ended guiding questions.

Data Analysis

Quantitative data from the questionnaires were analysed using descriptive statistics, including percentages, means, and standard deviations, and presented in table and chart forms. Qualitative data from interviews were analysed using narrative and descriptive methods, organized thematically based on Tomlinson's DI strategies, to complement and explain the quantitative findings.

Characteristics of participants by sex, experiences and qualifications

Table 1: Characteristics of respondents

Character	Frequency (N=200)	%
Male	115	57.5
Female	85	42.5
Total	200	100.0
Certificate	29	14.5
Diploma	36	18.0
First Degree	131	65.5
Second Degree	4	2.0
Total	200	100.0
1-10 years	117	58.5
11-20 years	56	28.0
21-30 years	23	11.5
above 30 years	4	2.0
Total	200	99.0

Participant teachers were randomly selected from the nine schools. As shown in the table above, 115 participants (57.5%) were male, while 85 participants (42.5%) were female. Regarding educational qualifications, 29 participants (14.5%) held a certificate, 131 (65.5%) had a first degree, and 4 (2%) had a second degree. In terms of teaching experience, the majority of respondents, 117 (58.5%), had 1–10 years of experience; 56 participants (28%) had 11–20 years; 23 participants (11%) had 21–30 years; and 4 participants (2%) had over 30 years of teaching experience.

Table 2: Characteristics of principals

School	Sex	Qualification	Experience in Years
1	M	MA	21
2	M	MA	20
3	M	MA	19
4	M	BA	27
5	M	BA	23
6	M	MA	27
7	M	MA	22
8	M	BA	20
9	M	MA	21
Total	9	9	9

All the 9 interviewed principals were male, held at least a first degree, and all except one had over 20 years of professional experience.

Findings and discussion

Data from the questionnaire and interviews with teachers and the school were analysed vis-à-vis major research questions framed based on different theories.

Teachers' awareness of differentiated instruction

The implementation of differentiated instruction in the classroom varies among teachers, largely due to differences in their knowledge and skills related to differentiated instruction. Research consistently highlights that a primary barrier to effective implementation is teachers' lack of adequate understanding and competency in using differentiated instructional strategies (Tomlinson, 2003).

Knowledge about differentiated instruction

Table 3: Data of teachers' Knowledge about DI

Category	Frequency	%
Yes, I know DI	35	17.6
No, I don't know DI	164	82.4
Total	199	100%

As shown in the data above, only 35 teachers (17.6%) reported knowing differentiated instruction, whereas the remaining 164 teachers (82.4%) lacked such knowledge. Similarly, interviews with teachers and school principals revealed that

"There are no trainings on new concepts such as differentiated instruction. Even though our students differ in many ways, we do not have the knowledge to differentiate instruction."

Teaching is challenging, and teaching well is exceptionally challenging (Tomlinson, 2000). Implementing differentiated instruction can be difficult because of various barriers. Research indicates that many teachers are hesitant to integrate differentiation into their classrooms for several reasons, with a lack of knowledge about differentiated instruction being a major factor.

Implementation of differentiated instruction

Table 4: Descriptive Statistics on DI Practice

N	Frequency	%
1 I tried to implement DI to address learners' diversity.	14	21.5
2 I didn't implement DI; I only implemented the usual way of teaching.	184	77.0
Total	198	98.5

As shown in the data above, only 14 teachers (21.5%) reported implementing differentiated instruction, while the remaining 184 teachers (77%) indicated that they do not. Although it is encouraging that some teachers attempt DI, effective implementation requires sufficient knowledge and skills. Interviews further revealed that teachers generally lack the necessary theoretical understanding and professional training in differentiated instruction. Those who reported practicing DI tend to rely on personal experience and informal strategies rather than on established pedagogical principles.

Interviewed teachers stated:

"We don't have the knowledge or skills to differentiate instruction in the classroom because there are no courses or training available. From our experience, we know that we cannot address learners' diversity with uniform lesson preparation."

They also noted that implementing differentiated instruction to meet the needs of every learner is time-consuming and challenging within the allocated class period. One teacher explained:
"We have only forty minutes per class. It is difficult to give attention to every student while also completing the required portion of the syllabus in the given time."

Overall, teachers highlighted both a lack of formal training and the practical constraints of time as major barriers to effectively addressing learner diversity.

Ways and paces to teach

Table 5: Descriptive Statistics on methods and pace

No.			Frequency	%
1	1.	I tried to practice different ways and paces to teach	12	6.0
2	2.	I practiced the usual way and pace to teach	185	92.5
Total			197	98.5

Regarding the instructional methods and pacing used in the classroom, only 12 teachers (6%) reported that they employ different approaches and adjust the pace to accommodate learners' needs. In contrast, the majority of 185 teachers (92.5%) indicated that they rely on the usual, uniform methods and pacing during instruction.

Consider students' diversity to prepare a lesson plan

Table 6: Teachers' lesson planning results

3.	4.		5.	Frequency	6.	%
7.	8.				9.	
10.	11.	I consider learners' diversity to prepare lesson plans		15	12.	35.0
13.	14.	I prepare lesson plans with the usual format		185	15.	65.0
Total				200	17.	100.0

Various research findings indicate that Ethiopian schools generally follow a uniform lesson plan format that all teachers are expected to use. However, effective implementation of differentiated instruction requires teachers to incorporate diverse teaching methods and assessment strategies to address students' varied learning needs. In the present study, the data show that only 15 teachers (35%) take student diversity into account when preparing lesson plans, whereas the remaining 185 teachers (65%) adhere to the standard format. Interview data further revealed that lesson plan templates are prepared by school principals and vice-principals and distributed to all teachers at the beginning of the school year in Amharic, English, and Affan Oromo languages. All the respondents said that:

"School directors give lesson plans for every teacher at the beginning of the school year, and they follow us to implement based on the given lesson plan format."

The extent of practice of differentiated instruction strategies

According to Tomlinson (2005), teachers can employ various strategies in the classroom to differentiate instruction. For this research, the researcher identified nine strategies that are considered practical and applicable within the Ethiopian context. Items were also developed under each strategy based on the researcher's personal review of the literature. The identified strategies include: students' learning profile, pre-assessment data, varied questions, a variety of instructional materials, student grouping, varying time to complete activities, engaging different senses within a lesson, varying models of lesson presentation for students, and varying assessments.

Table 7: Descriptive Statistics on the extent of practice of differentiated instruction strategies 8(N=200)

S.N	strategies	Mean	SD
1	SLP	2.69	0.56
2	PreAD	2.51	0.36
3	VQ	3.29	0.55
4	VM	3.07	0.67
5	SG	2.92	0.49
6	VTCA	2.71	0.70
7	EMS	3.72	0.58
8	VMLP	3.15	0.44
9	VA	3.43	0.60

Abbreviations:

SLP: Students' learning profile
Pre AD: Pre assessment data
VQ: Varied Questions
VM: Variety of Materials
SG: Students Grouping
VTCA: Vary Time to Complete Activity
EMS: Engage Multiple Senses
VMLP: Vary Modes of Lesson Preparation
VA: Vary Assessment

The above data about the extent of practice of differentiated instruction based on the nine strategies implies that some of the strategies are implemented by teachers (Engage Multiple Senses within a lesson, and varying assessments). But they don't have learners' profiles and pre assessment data.

Dimensions of differentiated instruction

Table 8: Descriptive Statistics on the dimensions of DI

S.N		M	SD
1	Process	2.47	0.30
2	Content	3.29	0.46
3	Product	3.36	0.40

As indicated in the results, process differentiation has a mean score of 2.47 (SD = 0.30), content differentiation has a mean of 3.29 (SD = 0.46), and product differentiation has a mean of 3.36 (SD = 0.40). Among these, the mean value for product differentiation is the highest. The mean value of process differentiation is below the standard.

Challenges that hinder the implementation of differentiated instruction

As different studies suggest, there are challenges that teachers face in implementing differentiated instruction, and teachers hesitate to integrate differentiation due to various obstacles. Interviews with teachers and school principals revealed that teachers have difficulty implementing differentiated instruction because of internal and external factors. Many of the

The interviewee said that:

We don't have the knowledge and skill towards differentiated instruction even its definition and how to implement it. Our teacher education curriculum isn't aware of teachers about new concepts like differentiated instruction. And DI is for learners with different types of impairment. But we don't have special needs learners.

School principals said that:

Teachers lack motivation because of different reasons even to implement what the teacher's guide and textbooks as expected by the MoE.

The other interviewee teachers also said that:

"There are 50-70 students in a classroom with different background knowledge, needs, and interests. We have work load, and the evaluation of teachers' performance focuses on portion coverage and paperwork. So, it is difficult to address learners' diversity even though it takes time to know their names."

The interview data with teachers and principals regarding this also show that teachers lack the motivation and encouragement to be teachers. And they list down the following barriers to implementing DI.

We didn't take training or courses about DI and other new concepts in our education. The curriculum developers adopt different theories without the knowledge and skills of teachers; on the other hand, they evaluate us to cover the given portion. So, it is difficult to address learners' diversity; rather, we run to cover the portion.

Conclusions and Implications

Based on the above data, the following conclusions and implications are drawn.

Teachers and principals have little or no exposure to professional development in DI. Without specialized courses or workshops, they're unable to understand or implement DI effectively in the classroom.

The teacher preparation programs do not focus on DI, leaving new educators without the tools and knowledge to apply this concept in their teaching practice.

Teachers and principals often misunderstand the concept of differentiation, failing to grasp how it's implemented in practice. While they may agree with the idea in theory, they struggle to address the diverse needs of their students effectively.

Teachers acknowledge that students are different, but they lack strategies for practically addressing these differences in the classroom. This gap arises because DI is not adequately emphasized in teacher training or ongoing professional development.

Teachers often don't have access to important pre-assessment data or students' learning profiles, which are essential for tailoring instruction to individual needs.

Instead of using flexible grouping methods based on students' strengths and needs, teachers continue to use fixed groups, which don't allow for the fluidity required in a differentiated classroom.

Although teachers may attempt to vary assessments to cater to different levels of thinking, they often fail to adjust instruction to the same degree, making assessments potentially misaligned with students' actual learning experiences.

For students who finish their tasks early, there are no additional activities provided to keep them engaged, which reflects a lack of consideration for students' varying learning paces. Though teachers might vary the time allotted for tasks, this adjustment is not enough to meet the needs of all learners, as differentiation requires much more than time adjustments. And the researchers advised further research in the area.

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