

THE PRACTICES AND CHALLENGES OF DIFFERENTIATED INSTRUCTION: THE CASE OF SELECTED GOVERNMENT UPPER PRIMARY SCHOOLS IN GONDAR CITY ADMINISTRATION

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ABSTRACT

The purpose of this study was to assess the practices and challenges of differentiated instruction in the selected Government upper primary schools in Gondar city administration. Mixed type (both quantitative and qualitative approaches were used for this study. In Gondar city, there are 7 sub-cities. Among these, 4 sub-cities (Arada, Azezo Tseda, Zobel and Jantekel) were taken as samples using simple random technique. In those sample sub-cities, there are 34 Upper primary schools. Accordingly, 5 schools (Abiyot Fire, Edget Felege, Kebele 19, Meserete and Atse Fasil schools) were selected randomly. The participants of this study were teachers, principals and supervisors. The main method of data collection was questionnaire and for the sake of triangulation interview was used. To analyze the quantitative data, mean and frequency counts were employed. Theme classifications, narration and descriptions were used to analyze the qualitative data. The findings of the study showed that differentiated instruction in the study areas was not fully practiced as desired. It was also found out that teachers' lack of awareness towards differentiated instruction, large class size, lack of training or teachers regarding differentiated learning, inappropriate learning environment, teachers teaching load and scarcity of instructional resources as major challenges that impede the effective implementation of DI in the study area.

Key words: differentiated instruction, practices, challenges

INTRODUCTION

Gender, ethnicity, religion, language, tradition heritage, age, disability, interest, talent and ability are just a few of the many forms of diversity that we see in the world around us. We see this colorful mixture of humanity everywhere and today's classroom is no exception to this trend. Each and every student has varying abilities, interests and needs. In relation to this, Villegas & Lucas (2007) stated that teachers of today face considerable challenges meeting the requirements of standards-based reform and the needs of all learners in the classroom.

Today more than ever before primary schools like other levels of educational institutions are required to educate diversified students in response to the increasingly complex society and rapidly changing, technology-based economy. For this to be a reality, teachers are expected to vary their instruction to meet the diversified needs of learners. Supporting this idea, Anderson (2007) stated that differentiated teaching method is regarded as an effective teaching tool to meet the diverse academic needs of learners. Similarly, Hall, Strangman & Meyer (2003) suggested that teachers need to be "flexible in their approach to teaching and adjust the curriculum and presentation of information to learners, rather than expecting students to modify themselves for the curriculum.

As it is evidenced across the literature, the "one size-fits-all" approach to teaching no longer meets the diverse needs of today's learners. In contrast, differentiated instruction benefits all students by focusing on essential skills and ideas in content areas, responding to individual learner variance, and integrating assessment with instruction (Tomlinson, 1999, 2001; Tomlinson & Kalbfleisch, 1998; Tomlinson & Mc Tighe, Gregory & Chapman, 2007, Heacox, 2002).

In line with this, Tomlinson (2000) further elaborated that a teacher can challenge all learners by providing materials and tasks on the standard at varying degrees of scaffolding, through multiple instructional groups, and with time variations. This is to say, differentiation allows teachers to vary the ways in which students work, alone or in groups, auditory or visual means, or creatively to further enhance student learning.

In spite of this fact, implementing the approach is complex and not without difficulty. Emphasizing at this point, (Tomlinson, 1995; Tomlinson, Moon and Callahan, 1998) reported that teachers' poor perceptions towards the approach as one challenge to implement differentiated

instruction as desired. By the same token, Finley (2008) mentioned teachers' lack of training as a challenge to use differentiated instruction in the classroom effectively.

Regarding the issues related to differentiated instruction, researches and international reviews were made at different times. To be specific, several researchers have focused on the topic of differentiation (Gregory & Chapman, 2007; Gregory & Kuzmich, 2005; Heacox, 2002).

In our country, the growing number of students' population coupled with their diversified needs, abilities and learning preferences calls for implementing differentiated instruction. However, the status of implementation of differentiated instruction in primary schools is not studied clearly yet. That is to say, although researches were carried out at international level, focused attention is not given to conduct research pertaining to the implementation of differentiated instruction in primary schools' context in our country. This entails the area worth studying. Having this in mind, the researcher is initiated to conduct research on the status of implementation of differentiated instruction in selected primary schools of Gondar city administration in Amhara region.

To this effect, the researcher formulated the following research questions

1. To what extent teachers implement differentiated instruction (objectives, contents, methods and assessment techniques) in their actual classroom?
2. What challenges teachers have faced in the implementation of differentiated instruction?

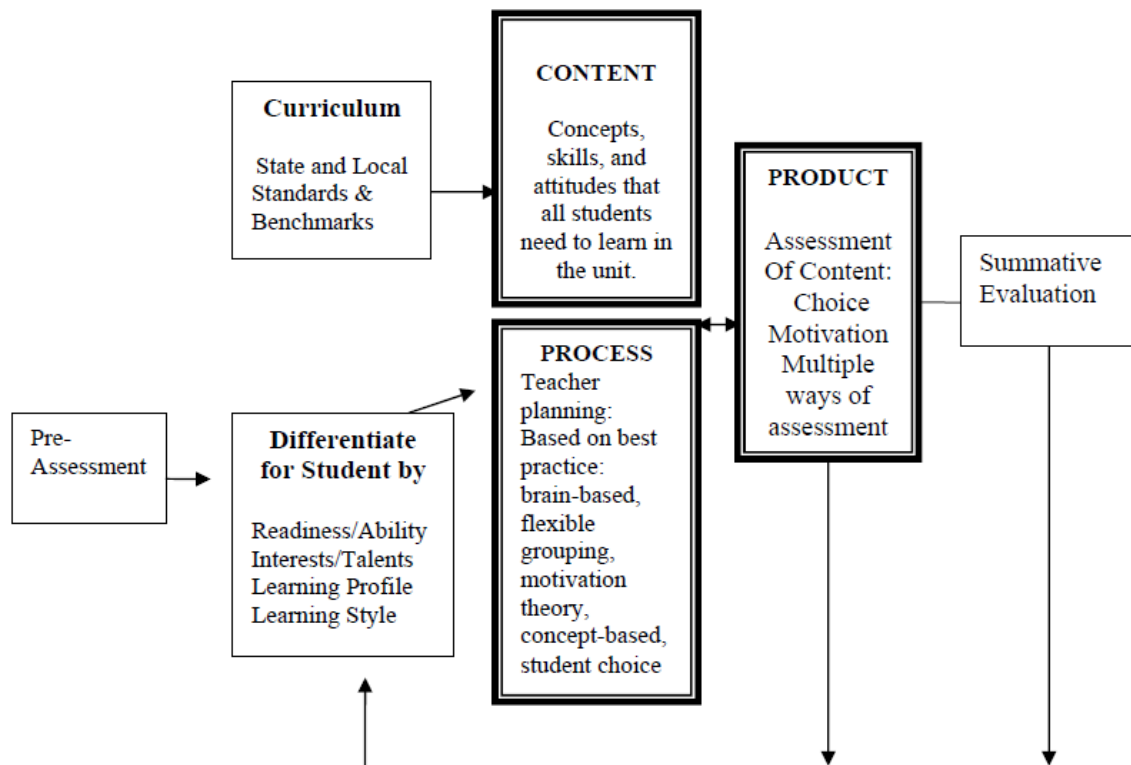


Figure 1. Conceptual framework of differentiation. (adapted from Hall, 2004)

RESEARCH METHODOLOGY

Study Design

This study was aimed at assessing the current status of practices and perceptions of differentiated instruction in selected upper primary schools of Gondar city administration. To attain this, descriptive survey method was employed. According to Koul (2006), descriptive survey design is useful not only to analyze, interpret and report the status of an existing condition, but also to determine the adequacy of status by comparing it with established standards. Hence, mixed study approaches (quantitative and qualitative) were used.

Participants of the Study

The participants of this study were teachers, principals and supervisors in the selected upper primary schools.

Study Population, Sample and Sampling Technique

In Gondar city administration, there are seven sub-cities: Arada, Azezo Tseda, Zobel, Jantkel, Fassil, Maraki and Rural. There are 34 government upper primary schools in those sub cities. Among those sub cities, Arada, Zobel, Azezo Teda and Jantekel were taken as samples. In those sample sub-cities, there are 14 Upper primary schools. The researcher believed that 7 upper primary schools (5-8) would represent the entire population and hence taken as samples. Accordingly, Abiyot Fire, Edget Felege, Azezo-Atekalay, Kebele 19, Atse Fasil, Meserete and Tsadiku Yohannis schools were selected randomly. Using simple random sampling technique, the sample schools were selected from each sub-city. In these primary schools, there are about 215 teachers. School principals and supervisors were taken as samples using comprehensive sampling technique. Accordingly, a total of 7 school principals and 5 supervisors will be interviewed.

In this study, the researchers used the following formula to determine sample size in the study area. This formula is appropriate especially for survey research, (Scott, 2013)

$$\text{True Sample} = (\text{Sample Size} \times \text{Population}) / (\text{Sample Size} + \text{Population} - 1)$$

$$\text{Sample Size} = (\text{Distribution of } 50\%) / ((\text{Margin of Error}\% / \text{Confidence Level Score}) \text{ Squared})$$

Where

Confidence level: (95% = 1.96)

ME= Margin of error (5%)

$$\text{Therefore Sample Size} = (0.5 \times (1-0.5)) / ((0.05/1.96) \text{ Squared})$$

$$\text{Sample Size} = 0.25 / ((0.02551\dots) \text{ Squared})$$

$$\text{Sample Size} = 0.25 / 0.00065077\dots$$

$$\text{Sample Size} = 384.16\dots$$

$$\text{True Sample for teachers} = 215 \times 384.16 / 215 + 384.16 - 1 = 137$$

Using the above formula, the sample size for this study is determined to be 137 for teachers. After the researcher determines the sample size, the aforementioned respondents would be selected using simple random sampling techniques i.e, lottery method. (see Table 1).

Table 1: Summary of total population and Sample size of teachers

	Primary school	Total population	Sample size
1	Abiyot Fire	32	15
2	Edget Feleg	16	9
3	Kebele 19	24	11
4	Atse Fasil	20	10
5	Meseret	24	12
	Total	116	57

DATA GATHERING INSTRUMENTS

Different data gathering instruments were used for this research. These include: questionnaire, interview and observation. Questionnaire is the main data gathering instrument and others serve as supplementary tools to enrich the information obtained from different sources.

Questionnaire

A questionnaire was prepared to obtain information from primary school teachers about the implementations of differentiated instruction and teachers perceptions towards it. The nature of questionnaire was a five- point Likert scale type to assess the perception of teacher towards the practice of differentiated learning approach. The items of the questionnaire were both close-ended and open-ended type. Some of the items in the structured questions were positively worded while others were negatively worded in order to counter possible bias. It was then distributed to those teachers in each department of the sample primary schools. Moreover, the questionnaire was translated in to Amharic language for easy of communication.

Interview

The purpose of the interview is to supplement the data obtained through questionnaire and used to gather information related to the implementation of differentiated instruction. The informants of the interview would be teachers, all school principals and department heads of each sample primary school.

METHODS OF DATA ANALYSIS

In this study, both quantitative and qualitative approaches were used to analyze the data obtained through different instruments. Both descriptive and inferential statistics were employed as quantitative methods of analyzing the data obtained from questionnaire. Whereas, descriptive statistics like frequency count, percentage and mean score were computed to see to what extent primary school teachers present their lesson by considering the diverse needs of all students. The qualitative data gathered from open-ended items of the questionnaire, interview, classroom observation checklist and document review were analyzed through narration, quotations, descriptions and thematic analysis technique

DATA ANALYSIS AND DISCUSSION

In this section, the findings from the questionnaire and interview were analyzed. Descriptive statistics like percentage, frequency counts and mean were employed to present and analyze the structured items of the questionnaire quantitatively. To supplement and enrich the information that were drawn using a questionnaire, the data from open-ended items of the questionnaire and interview, narration and description were used.

IMPLEMENTATION OF DIFFERENTIATED INSTRUCTION

Table 2: Implementation of Differentiated instruction

No	Item	V		H		L		VL	
		F	%	F	%	F	%	F	%
1.	I adjust the lesson content to suit the different needs of students .	27	47.4	26	45.6	4	7.0		
2.	I set clear and specific lesson objectives by considering the individual differences among students	30	52.6	19	33.3	6	10.5	2	3.5

3.	I give individual, pair and group activities to students based on the objectives of the lesson.	39	68.4	16	28.1	2	3.5		
4.	I plan the lesson keeping in mind students' diversified needs and abilities.	26	45.6	21	36.8	8	14.0	2	3.5
5.	I use diversified teaching strategies/ methods to meet the diversified needs and abilities of students.	23	40.4	26	45.6	5	8.8	3	5.3
6.	I rely on varied continuous assessment techniques to measure students' performance.	39	68.4	15	26.3	2	3.5	1	1.8
7.	I distribute students in heterogeneous groups in terms of capabilities.	34	59.6	19	33.3	3	5.3	1	1.8
8.	I do not deviate from the standard level that every student should reach to.	12	21.1	20	35.1	17	29.8	8	14.0
9.	I present the content to students in different pace.	18	31.6	30	52.6	7	12.3	2	3.5
10.	I encourage students to present assignments given in different ways.	30	52.6	24	42.1	2	3.5	1	1.8

It was indicated from (item1, table 2) the majority of the respondents (92%) reported that they adjust the lesson content to suit the different needs of students. Additionally, many of the respondents (84.2%) in item 2 of the same table stated that they present the lesson content to students in different pace. Contrary to this finding, the data from the interview and open-ended items of the questionnaire revealed that most teachers in the study area deliver the same lesson content to all students without making any adjustment in light of individual variations.

As depicted in item 3 of the same table, nearly all the respondents (96.5%) remarked that they give individual, pair and group activities to students based on the objectives of the lesson. The data from the interview reverses this finding. One of the key informants said,

Few teachers provide individual, pair and group activities based on the objectives of the lesson. Most of us always give group activities. Giving individual and pair activities are missing elements in the context of our classrooms.

Moreover, as it was indicated in item 4 of the above table, majority of the respondents (82.4%) reported that they plan the lesson keeping in mind students' diversified needs and abilities.

In conformity to this, one of the interviewees replied,

Planning lessons is our common practice. However, the problem lies in making the plan realistic. We plan the same lesson contents to all students. Much remains to be done in considering students 'diversified needs while we plan the lesson .

In the same way, the data in item 5 also showed large numbers of the respondents (82%) verified that they use diversified teaching strategies/ methods to meet the diversified needs and abilities of students. As opposed to this, one of the senior teachers during the interview session asserted,

We employ lecture, group discussion and question and answer instructional methods

In all sessions regardless of students' varied needs in the classroom. I think we need to get professional training on the area of pedagogy .

As indicated in item 6 of the same table, most of the respondents (94.7%) stated that they relied on varied continuous assessment techniques to measure students' performance. Literature reviewed on this area, however, reversed the findings of this study. For instance, Berg & Wehby (2013) as cited in Christopher M (2015) underscored that assessment requires effective teaching strategies that take many forms like writing prompts, graphic organizers, and learning centers provide opportunities for assessment other than the typical paper and pencil tests.

Furthermore, the data in item 7 revealed the majority of the respondents (92.9%) suggested that they distribute students in heterogeneous groups in terms of capabilities.

In item 8, some of the respondents (62.2%) remarked they do not deviate from the standard level that every student should reach to. In spite of this fact, few of their counterparts (37.8%) disclosed that their current classroom teaching practice is not up to the standard level as expected.

As the data in the above table item 9 showed, most of the respondents (84.2%) stated they present the content to students in different pace.

Eventually, It was indicated on the same table item 10 that nearly all of the respondents (94.7%) encourage students to present assignments given in different ways.

Statistics

		idi1	idi2	idi3	idi4	idi5	idi6	idi7	idi8	idi9	idi10
N	Valid	57	57	57	57	57	57	57	57	57	57
	Missing	0	0	0	0	0	0	0	0	0	0
Mean		3.40	3.35	3.65	3.25	3.21	3.61	3.51	2.63	3.12	3.46
Std. Deviation		.623	.813	.551	.830	.818	.648	.685	.975	.758	.657

Grand mean: 3.319

Generally, the grand mean also showed that the degree of implementation of differentiated instruction is more than the expected mean. On the other hand, the data from the open ended items of the questionnaire and interview revealed that the degree of the current practice of differentiated instruction in terms of objectives materials and assessment in the study area is an average level. However, teachers' actual classroom practices of varying contents and methods of teaching in the study area remains low yet. This implies the current practice of differentiated instruction in the study area calls for improvement for schools to achieve their mission effectively. In relation to this, Tomlison (2012) teachers are expected to implement the principles of differentiated instruction in the classroom context focusing on the five elements of the curriculum: objectives, contents, methods, and instructional media and assessment mechanisms.

DATA FROM OPEN-ENDED ITEMS OF THE QUESTIONNAIRE AND INTERVIEW

The status of implementation of differentiated instruction

As the data from open-ended items of the questionnaire revealed, most of the respondents reported that differentiated lesson in terms of the objectives, contents and assessment is implemented to some extent while differentiating instructional materials and methods of teaching in the context of the study areas needs utmost effort on the part of teachers. The data obtained through interview is consistent with this finding. For instance, one of the senior primary school teachers asserted:

We most often differentiate the contents of the lesson to be presented and the modes of assessment as far as we could. However, group discussion and lecture methods of teaching have been applied for every lesson content regardless of the individual variations among students in the classroom.

On the other hand, some of the respondents stated that differentiated instruction in the context of primary schools is not practiced at all. For them, the same contents of the lesson were delivered to all students using the same teaching methods and assessment mechanisms without taking into account the individual difference that exist among students.

Supporting this idea, one of the key informants remarked:

It is difficult to say that the principles of differentiated instruction were applied in our school context. Presenting the same lesson contents using the same instructional methods without considering individual variations of children in the classroom is a common practice. Oral questions and paper and pencil tests as assessment tools are employed for every content of the lesson to all students. Where lies then differentiation?

Contradictory to this finding, Anderson (2007) asserted that teachers need to adapt the lesson contents what they want students to learn when they differentiate it.

Major challenges faced related to the implementation of differentiated instruction

From the data obtained through open-ended items of the questionnaire and interview, the following were identified as the major challenges teachers face while implementing differentiating instruction in their classrooms:

- Large class size
- Lack of awareness of teachers regarding differentiated instructional approaches
- Little or no training was given to teachers regarding differentiated instruction
- Students' lack of interest in learning

- Scarcity of instructional resources/materials
- The classroom environment is not conducive
- Teachers teaching load
- Students classroom misbehavior
- Poor parental support
- Lack of teaches motivation towards teaching
- Lack of well qualified and competent teachers
- The text books were not prepared based on differences on students 'level of understanding
- Shortage of instructional time

Based on the above findings, it can be deduced that differentiating instruction in the primary school classroom contexts are backed by a number of problems. Among the major pitfalls, problems related to the teachers, students, the classroom environment and materials due attention for differentiating instruction has quality implication. In connection with this, Tomlinson and Imbeau (2010) confirmed that effective differentiated instruction is inseparable from a positive learning environment, high-quality curriculum, assessment to inform teacher decision making, and flexible classroom management.

CONCLUSIONS

Based on the findings of the study, the following conclusions were made

- Differentiated instruction in the study area was not fully practiced as expected. i.e, teachers were found to differentiate the objectives, contents and materials/media of the lesson at an average level despite their classroom practice in differentiating the methods of teaching and assessment mechanisms remain low.
- A number of challenges in and out of the school that affect the implementation of differentiated instruction in the primary school context were identified. This shows how schools are expected to take actions based on the degree of severity of the challenges accordingly.

RECOMMENDATIONS

The following recommendations were forwarded based on the conclusions drawn above

- The AREB should assess the current status of primary school teachers classroom practice of differentiated instruction.
- Gondar city administration education office should work closely in collaboration with primary school principals, Cluster supervisors and teachers regarding the implementation of differentiated instruction with respect to planning, delivering and assessing stages of the lesson.
- Intensive need-based on-the-job training should be given to teachers about the concept, principles and practices of differentiated instruction by professionals in the field.
- School principals should create a positive working climate that entertains collegial supervision that gives room for teachers to improve their classroom teaching.
- Teachers should periodically evaluate their daily classroom practice to check how far they vary the lesson based on students' need, interest and level of readiness.

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