

# **Differentiated Instruction: Implications for Public Secondary School Teachers in Ede, Osun State**

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## **Abstract**

*Differentiation is a teaching philosophy that helps in addressing the needs of students in heterogeneous classrooms. These are classrooms with students from different backgrounds, learning disabilities, quick learners, slow learners, special needs, gifted and others. With such diversity, something must be done to meet the needs of all learners, not just the “one size fits all” approach so that each student may learn and none is left behind. This study therefore investigated teachers’ perspectives and implementation of differentiated instruction in selected secondary schools in two local government arrears in Ede, Osun State. The study used a survey type of descriptive research design. The population consisted of all the 197 teachers in six secondary schools and simple random sampling was used to select 112 teachers. Inferential statistics of frequency counts and percentages were used to analyze the data using SPSS version 20. Results showed that 67% of the respondents have a clear and correct knowledge of the definition of differentiated instruction. About 60-84% of respondents have a positive attitude towards the different variables used to measure teachers’ perspectives. Only 9% of respondents actually implemented differentiated instruction in the classroom. In conclusion, findings revealed that many of the teachers sampled have knowledge of what differentiated instruction is, but very few of them implemented it in their classrooms. It is therefore recommended that differentiated instruction should be tackled during professional development workshops and teachers should be encouraged to differentiate their instructions consistently so all the students may learn without leaving any one behind.*

**Keywords:** Differentiated instruction, teachers’ perspectives, implementation, Secondary Schools, Osun State

## **Introduction**

Differentiation is a teaching philosophy that helps in addressing the needs of students in heterogeneous classrooms. Heterogeneous in the sense of different backgrounds, special needs, gifted students, students with learning disabilities, quick learners, slow learners and others (Tomlinson, 2003 & Wu, 2013). To cope with this level of diversity in the classroom, teachers must adapt their teaching to meet the needs of all learners. As a result, inclusive classrooms, mixed-ability classrooms, student-centered classrooms, and collaborative classrooms have to use differentiated instruction so each may learn and no child is left behind (McQuarrie & McRae, 2010).

Differentiation is an approach to instruction that incorporates varieties of strategies it is not a single strategy. It is a way of learning and teaching that addresses differences in students' learning needs (Tomlinson & Imbeau, 2010). Valiande, Kyriakides, & Koutselini (2011) posit that differentiation is an instructional approach whereby the teacher is constantly reflective and innovative about the effective procedures of teaching and learning that cannot be met by readymade lesson plans. This is because differentiation demands that the teacher is aware of the students' needs and other personal characteristics.

Today, most classrooms contain students with both genders from multiple cultures, backgrounds, age and a range of exceptionalities (Alavinia & Farhady, 2012, Tomlinson & Jarvis, 2009). In addition to all these differences, they also have different learning styles and different intelligences. As a result, something must be done to meet the needs of all learners, not just the "one size fits all" approach. If educators refuse to implement these changes, teaching will remain ineffective and many students will be left behind. Research has shown that ineffective teaching for three years consecutively in a particular class has adversely affected students' achievement in Mathematics by about 54% regardless of the abilities of the students (Tassel-Baska, 2012).

Differentiation has a content dimension, that is, the way the content is presented, the process by which the students learn the products or demonstrations of their learning and the environment in

which they learn (Tomlinson, 2001). Differentiated instruction bridges the gap by providing a pathway to understanding content, processes, and products in a conducive learning environment. It can be seamless if implemented properly. It involves a shaking up of what goes on in the classroom so that students can have multiple opportunities to explore concepts, make sense of ideas, and demonstrate what they know and understand (Hall, Strangman, & Meyer, 2009).

Differentiated instruction can be implemented in many different forms. For example, teachers can provide materials for learning tasks at various levels of challenge. Secondly, teachers can also provide different levels of support in the classroom depending on students' needs. If properly implemented, it will look different in every learning environment depending on the students, teachers, and learning contexts because of the endless combinations possible (ibid).

### **Objectives of the Study**

1. To assess the perspectives of teachers about differentiated instruction.
2. To investigate teachers' attitudes towards differentiated instruction.
3. To ascertain if teachers have received formal training in differentiated instruction.
4. To investigate if teachers implement differentiated instruction strategies in their classrooms.

In the national analysis of West African Secondary School Certificate Examination (WASSCE) 2016, the state of Osun was rated 27 out of the 36 states of the federation ([www.vanguardngr.com](http://www.vanguardngr.com)). From Table I below, it is evident how the state of Osun has performed poorly in the WASSCE over a period of ten years from 2006 to 2016. The percentage of passes with 5+ credits including English and Mathematics have ranged from as low as 6.86% in 2007 and the highest being 46.3% in 2016. The secondary schools in Ede contributed largely to this performance as some of the biggest and oldest secondary schools in the state are located in the

two local governments in Ede- Ede north, and Ede south respectively. (www.osun.gov.ng ).

**Table I: State of Osun Students Performance in WASSCE 2006 -2016**

<b>Year</b>	<b>Total Candidate</b>	<b>Passes with 5 + Credits Including Eng. &amp; Maths</b>	<b>Percentage (%)</b>
2006	37,428	4,085	10.91
2007	36,171	2,483	6.86
2008	37,715	3,813	10.11
2009	39,676	5,545	13.98
2010	43,216	6,777	15.68
2011	53,293	11,672	21.9
2012	51,463	11,431	22.21
2013	47,009	9,654	20.54
2014	47,686	8,844	18.55
2015	48,845	10,590	21.68
2016	36,679	16,983	46.3

www.vanguardngr.com

### **Statement of the Problem**

Classrooms in schools should be a place where all students not only feel safe, but also learn. The aim of teachers should be to reach all the learners in the classroom so that none is left behind. However, in most secondary schools, this is far from being the reality. Many students come to school less prepared because of illiterate parents, poverty, lack of readiness, background issues and as a result of examinations such as NECO, WASSCE and others. With the use of differentiated instruction, a teaching philosophy that has proven to be effective in meeting the needs of all learners in mixed-ability classrooms, all students have a chance to learn because their various needs would be met. This study therefore investigated teachers' understanding and implementation of differentiated instruction in selected secondary schools in Ede, Osun state.

### **Research Questions**

The study provided answers to the following research questions.

1. What is the level of teachers' understanding of differentiated instruction in the selected secondary schools?

2. What are the attitudes of teachers towards differentiated instruction?
3. What is the experience of the teachers regarding formal training in differentiated instruction?
4. What do the teachers perceive to be the implementation of differentiated instruction in their classrooms?

### **Methodology**

For this study, the population consisted of all the teachers in six of the secondary schools in the two local government areas. The names of the schools and total number of teachers in each school are as follows: Adeleke University High School- 54 teachers, Baptist High School- 21 teachers, Adventist High School-25 teachers, Adventist Government High School- 35 teachers, Oba Laoye High School- 32 teachers and finally, Ebunoluwa High School- 30 teachers. Adoption of new, research-proven teaching strategies such as differentiated instruction will help with the overall student learning and academic achievement.

The research design of this study is a survey type of descriptive research design. The population of the study consisted of all the 197 teachers in six selected secondary schools in Ede South and Ede North local government areas. Simple random sampling was used and questionnaire was administered to 112 teachers which cut across the selected secondary schools. 99 (88.4%) of respondents returned their questionnaires and only 89 (79.5%) of them were usable.

The research instrument was a well-designed self-structured questionnaire titled "Differentiated Instruction, Learning Styles, and Multiple Intelligences Questionnaire (DILSMIQ) was used for this study. The questionnaire comprised four sections named A, B, C, and D. Section A consists of the demographic information of the participants. Section B consists of ten items on a 4-point Likert-type scale and 2-open ended questions on the teachers' knowledge of differentiated instruction. Section C consists of ten items on a 4-point Likert-type scale and one open-ended question on teachers' knowledge of learning styles. Lastly, section D consists of ten items on a 4-point Likert-type scale with one open-ended question on teachers'

knowledge of multiple intelligences. The questionnaire was pilot-tested with a small group of randomly selected teachers similar to those in the final sample.

The data was collected using a key contact person that was identified in each school and was saddled with the task of administering and collecting the surveys. Approximately 88% returned the questionnaire filled, but after removing the incompletes, it came to approximately 80% response rate. It was close to examination period and some teachers were busy with the end of year activities. This is an example of a one-shot survey design.

The data from the survey were entered into a statistical package- the SPSS for windows, version 20 for statistical analysis. The researcher coded the survey and entered the data into the software using a numerical code to analyze the data. Codes were consistent and unambiguously assigned to each answer and missing data. The analysis provided a calculation of descriptive statistics displaying frequencies and percentages for each response in text, graphs, and tables.

## Results

**Table 2: Distribution of respondents by gender**

	<b>Frequency</b>	<b>Valid Percent (%)</b>
Female	67	75.3
Male	22	24.7
Total	89	100.0

Table 2 shows that out of 89 teachers sampled for the study, 75% were females and approximately, 25% were males.

**Table 3: Distribution of respondents by age range**

	Frequency	Valid Percent (%)
26–30yrs	20	22.5
31-35yrs	20	22.5
36-40yrs	19	21.3
41-45yrs	11	12.4
21-25yrs	7	7.9
46-50yrs	6	6.7
51-55yrs	5	5.6
56-70yrs	1	1.1
<b>Total</b>	<b>89</b>	<b>100.0</b>

Source: Field work, 2018

Table 3 shows that 59 out of the 89 teachers (66%) were in the age range between 26 and 40years of age.

**Table 4: Distribution of respondents by highest educational level reached**

Degree	Frequency	Valid Percent
Grade Two/NCE	19	21.3
Bachelor's	50	56.2
PGDE	1	1.1
Master's Degree	15	16.9
Doctoral	2	2.2
No Response	2	2.2
<b>Total</b>	<b>89</b>	<b>100.0</b>

Source: Field work, 2018

Table 4 shows that 56% of the teachers have Bachelor's degree, 17% have Master's degree and only 2% have Doctoral degrees.

**Table 5: Distribution of respondents by number of years of teaching experience**

	Frequency	Valid Percent (%)
1-3yrs	24	27.0
4-10yrs	40	44.9
11-20yrs	11	12.4
21-25yrs	12	13.5
26-30yrs	1	1.1
30yrs +	1	1.1
<b>Total</b>	<b>89</b>	<b>100.0</b>

Source: Field work, 2018

Table 5 shows that out of the 89 teachers sampled for this study, 27% have 1 to 3 years teaching experience and 45% have between 4 and 10 years of experience, the more experienced teachers, with more than ten years in the teaching profession are only 28% of the sample.

**Table 6: Distribution of respondents by subject area taught**

	Frequency	Valid Percent (%)
Science	23	25.8
Other	22	24.7
Language Arts	17	19.1
Social Studies	16	18.0
Mathematics	11	12.4
<b>Total</b>	<b>89</b>	<b>100.0</b>

Source: Field work, 2018

Table 6 shows that the teachers are widely distributed in the subject areas they teach which include Mathematics, Social Studies, Language Arts and Science with a slight edge.

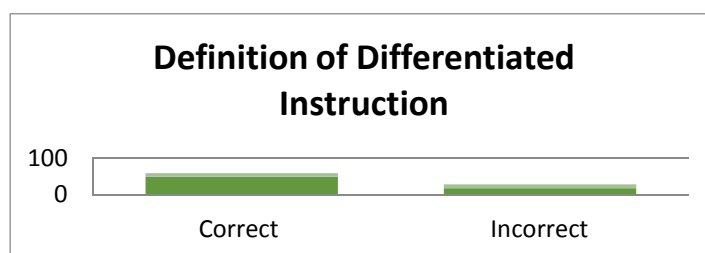


**Table 7: Distribution of respondents by the type of teacher**

	Frequency	Valid Percent (%)
General Education Teacher	79	88.8
Special Education Teacher	10	11.2
<b>Total</b>	<b>89</b>	<b>100.0</b>

Source: Field work, 2018

**Research Question 1:** What is the level of teachers' knowledge of the definition of differentiated instruction in the selected secondary schools in Ede, Osun State?



**Figure 1:** Bar chart showing the responses of teachers on the knowledge of the definition of differentiated instruction.

Figure 1 presents the answer to research question 1. The findings revealed that 67% of the respondents have a clear and correct knowledge of the definition of differentiated instruction. Also, 29 out of the 89 teachers (33%) have no idea of the meaning or definition of differentiated instruction.

**Research Question 2:** What are the attitudes of teachers towards differentiated instruction in selected secondary schools in Ede, Osun State?

**Table 1: Distribution of respondents based on their attitudes towards differentiated instruction (DI) in their classrooms**

Item / Variable	Strongly Agree (SA)	Agree (A)	Strongly Disagree (SD)	Disagree (D)
I am comfortable using DI in my lesson planning	38	37	9	5
DI is often used in reading class	35	32	16	6
I use data to drive DI in the class	31	16	31	11
I am comfortable using DI in my class	41	21	18	9
I use Differentiated assessment in class	35	31	18	5
I use Differentiated class work in class	30	27	26	6
I use Differentiated reading materials	29	26	23	11
I use DI to create flexible groupings	38	24	22	5

*Source: Field work, 2018*

Table 1 represents the analysis of answers to research question 2. The findings show that 75 (adding SA and A columns) out of the 89 teachers (84%) have a positive attitude towards differentiated lesson plans. It also shows that 67 (SA plus A) out of the 89 teachers (75%) have a positive attitude towards differentiated reading assignments. 47 (SA plus A) out of 89 (52.8%) have a positive attitude towards the use of data to give differentiated instruction. 62 (SA plus A) of the 89 teachers (70%) have a positive attitude towards a differentiated classroom. They feel comfortable about the fact that instruction is differentiated in their classroom.

Table 1 further shows that 66 (SA plus A) out of the 89 teachers (74%) have a positive attitude towards differentiated assessment in their classrooms. 57(SA plus A) of the 89 teachers (64%) have a

positive attitude towards differentiated homework. 55 (SA plus A) of the 89 teachers (62%) have a positive attitude towards differentiated reading materials. Finally, 60 (SA plus A) of the 89 teachers (67%) have a positive attitude towards creating a flexible grouping in their classroom. Overall, to answer research question 2, the teachers sampled for this study indicated overwhelmingly a positive attitude towards differentiated instruction.

**Research Question 3:** What is the experience of the teachers regarding formal training in differentiated instruction?

**Table 2: Differentiated Instruction Training Received**

	Frequency	Valid Percent (%)
Extensive	66	74.2
Some	17	19.1
None	6	6.7
<b>Total</b>	<b>89</b>	<b>100.0</b>

Source: *Field work, 2018*

Table 2 represents the analysis of research question 3. The results show that most of the teachers (74.2%) have received extensive formal training in differentiated instruction. A few of them (19.1%) have received some training. 6.7% of the teachers sampled indicated that they have never received any formal training in differentiated instruction.

**Research Question 4:** What do the teachers in the selected schools in Ede perceive to be the implementation of differentiated instruction in their classroom?

**Table 3: Implementation/Use of DI in the classroom**

	Frequency	Valid Percent (%)
Don't know / No idea / Nothing	56	62.9
Give rewards as reinforcement	10	11.2
Go on field trips	3	3.4
Deliver lessons on varying levels of difficulty	8	9.0
Use manipulative	4	4.5
Use different teaching styles	6	6.7
Change learning environment	2	2.2
<b>Total</b>	<b>89</b>	<b>100.0</b>

*Source: Field work, 2018*

Table 3: represents the analysis of research question 4. The responses indicate that only a few of them (9.0%) actually implement differentiated instruction in their classrooms. A large number of the teachers sampled (91%) do not implement differentiated instruction in their classrooms based on their responses.

### **Discussion of the Results**

The study revealed that most of the teachers have a favourable attitude towards the use of differentiated instruction in their classrooms. The study also revealed that more than 75% of the teachers received formal training in differentiated instruction. The discrepancy is that despite the fact that the teachers have knowledge of what differentiated instruction is, have a good attitude towards its use in the class, and many have actually received training in how to use it, unfortunately, very few (less than 10%) actually implement differentiated instructional strategies in their classroom. The impact on students' learning is that some do not receive the quality teaching necessary for effective teaching-learning process. The implication is that many of the students are left behind in the classroom. The overall effect is negative, producing semi illiterates, half-baked and poorly educated citizenry for the national workforce.

**Contribution to Knowledge:**

This study's findings show that it is not enough to have knowledge of quality teaching and learning strategies, but those strategies must be implemented for meaningful impact for student achievement.

**Conclusion**

The findings of this study revealed that many of the teachers have an idea and knowledge of what differentiated instruction is, but very few of them implement differentiated instructional strategies in their classrooms. The study also revealed that most of the teachers have a favourable attitude towards the use of differentiated instruction in their classroom. The study also revealed that more than 75% of the teachers received formal training in differentiated instruction. The discrepancy is that despite the fact that the teachers have knowledge of what differentiated instruction is, have a good attitude towards its use in the class, and many have actually received training in how to use it, unfortunately, very few (less than 10%) actually implement differentiated instructional strategies in their classroom.

**Recommendations**

1. Differentiated Instruction should be tackled during professional development workshops and conferences.
2. Teachers should be encouraged to differentiate their instructions consistently so all the students may learn without leaving any behind.
3. This should be included in the teachers' training curriculum, so that right from the beginning of their careers, teachers would be aware of this impactful teaching philosophy and ensure to utilize it always so that each student may learn.

Also, for future research, I would like to suggest finding out from teachers what the barriers or obstacles may be that have hindered or prevented them from implementing differentiated instruction, despite their knowledge, training and good attitudes towards it.

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