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Assessing the Influence of Differentiated Instruction on Enhancing Reading Comprehension Skills among Learners: A Quasi-Experimental Study

Diosdedet C. Labordo, Jr.
College of Education
West Visayas State University-Lambunao Campus
Lambunao, Iloilo, Philippines, 5042
Tel: +639504279103
Email: diosdedet.labordo@deped.gov.ph

Abstract: This quasi-experimental study aimed to investigate the impact of Differentiated Instruction (DI) on the reading comprehension skills of 30 Grade Eleven Academic Strand Learners. Using a pretest-posttest design, the research assessed the effects of DI on reading comprehension levels before and after treatment. The experimental group, comprising 30 participants, received DI, while the control group of 30 participants underwent traditional classroom instruction. It is essential to note that participants primarily used English as their second language (L2), and the research was conducted in the Philippines. The quasi-experimental design involved the pretest-posttest control group with matched subjects, utilizing reading comprehension passages with corresponding difficulty levels. Assessment tools included the Informal Reading Inventory (IRI) standardized test, adapted from Jerry Johns Basic Inventory (2008), and the Checklist of Intelligence Strengths (Armstrong, 2009) for determining participants' learning preferences. Descriptive statistics, including means and standard deviations, evaluated comprehension levels. The researcher employed t-tests for independent and correlated samples to test the relationship between variables, with a significance level set at .05 alpha. Findings indicated that learners undergoing Differentiated Instruction achieved a Middle High School Level of comprehension, while those in Traditional Classroom Instruction reached only a Sixth-level comprehension. The study underscored DI's positive impact on developing learners' reading comprehension skills, enhancing their interests and enthusiasm for better understanding. Importantly, integrating learners' preferences in Differentiated Instruction proved effective in fostering motivation and performance, shaping competitive, skillful, and knowledgeable 21st-Century Learners.

Keywords: differentiated instruction, reading comprehension skills, multiple intelligence, 21st century skills, language

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Introduction

The K to 12 curriculum focuses on acquiring 21st-century skills that prepare students to cope with the challenges of the highly technological and rapidly changing world. The Department of Education

Order No. 42 series of 2016 of the Philippines urges all K–12 teachers to employ differentiated instruction, enabling various learner types to realize and utilize their full potential and achieve the desired outcomes of the lesson.

As mentioned in the Department of Education Order No.42 series of 2016, Differentiated Instruction is one of the key features of the k to 12 curriculum. Differentiation, also known as differentiated instruction, refers to offering various learning options in the classroom so that students with diverse needs, interests, and skills can still access the same curriculum.

Every year, the increase in enrollment places a greater demand for education at First Class National High School, Philippines. The school serves more than four thousand (4, 000) learners with a varying ratio of fifty-five (55) learners per teacher. In 2012-2013, the National Achievement Test (NAT) Result had a Mean Percentage Score (MPS) of 45.38 %; in 2013-2014, it was a 58.74% result; and in 2014-2015 was 44.34%. The National Achievement Results from the school year 2012 up to 2015 fluctuated. The highest MPS of 58.74% was in the school year 2013-2014, and 44.34% was the present NAT result, and this is most likely true as PISA 2022 results showed that the Philippines lagged in reading results.

Previous research in L2 reading consistently shows a positive link between reading comprehension and academic achievement. Nyarko, Kugbey, Kofi, Cole, and Adentwi (2018) discovered that higher L2 reading skills correlated with better performance on standardized tests, highlighting the importance of reading comprehension across subjects. Similarly, Cadiz-Gabejan and Quirino (2021) found that interventions targeting reading skills improved overall academic performance, as seen in higher standardized test scores. These findings correspond with fluctuations in NAT results, suggesting that efforts to enhance L2 reading instruction may impact academic outcomes positively. However, the decline in NAT scores in subsequent years underscores the ongoing need to prioritize L2 reading proficiency, especially in light of the recent PISA 2022 results indicating reading challenges in the Philippines.

Thus, poor reading comprehension is the major problem of the English Teachers in the mentioned school. The researcher found students from multiple cultures with different personality traits, some trying to bridge the languages and behaviors of two worlds. Students who struggle with one or more subjects are seated next to the advanced learners. Students with varying needs and experiences share space with peers whose world revolves only around what their home's environment could offer. In the observance of classes, it is noted that learners have enthusiasm only if the activities are concrete and engaging. All these students have the right to anticipate enthusiastic and animated teachers ready to meet the students as they are, provide multiple learning options, drive them along the trail of learning, and reach the highest peak of success as soon as possible.

Reading comprehension enables the assimilation of knowledge and supports educational procedures, facilitating successful adjustment to both academic and personal problems. According to UNESCO (2009) and de-la-Peña and Luque-Rojas (2021), higher education should enable students to independently direct their academic-professional learning and engage in critical thinking for the benefit of community service.

Langelaan et.al (2024) highlight the undeniable diversity in education, particularly in urban settings, where students exhibit variations in sociocultural backgrounds, home environments, languages, and related characteristics influencing life quality, power dynamics, and privilege. Recognizing and embracing diverse learning styles and responses to instruction challenges teachers to nurture each student's growth in light of these differences. Differentiated instruction (DI), a comprehensive teaching strategy aimed at improving learning outcomes for every student in the classroom and eventually closing the achievement gap, is born out of this difficulty. This perspective is supported

by numerous scholars, including Belfi, Goos, De Fraine, and Damme (2012), Gaikhorst (2014), Matsko, Hammerness, and Lee (2022), Gay (2018), Tomlinson (2014), Denessen (2017), Gheyssens et.al (2020), Griful-Freixenet, Vantieghem, Gheyssens, and Struyven (2020), and Steenbergen-Hu, Makel, and Olszewski-Kubilius (2016).

Although prior research in the Philippines has proven that Differentiated Instruction (DI) improves high school students' reading comprehension, there are still gaps that need to be addressed. Previous research may have concentrated on specific issues, leaving opportunities to study new contexts and variables. This study seeks to fill these gaps by gaining a better knowledge of DI's effectiveness in improving reading comprehension among high school students in the Philippines.

Consequently, this question was posed: did Differentiated Instruction affect the learner's reading comprehension skills? This question must be answered. Hence, the study was conducted.

Research Questions

This study aimed to address the following questions:

1. What is the level of pretest reading comprehension skills among learners when grouped according to Differentiated Instruction (DI) and Traditional Classroom Instruction (TCI)?
2. What is the level of posttest reading comprehension skills among learners when grouped according to Differentiated Instruction (DI) and Traditional Classroom Instruction (TCI)?
3. Is there a significant difference between the pretest and posttest scores in learners' reading comprehension skills who underwent Differentiated Instruction?
4. Is there a significant difference between the pretest and posttest scores in learners' reading comprehension skills who underwent Traditional Classroom Instruction?
5. Is there a significant difference between the posttests in reading comprehension skills among learners who underwent Differentiated Instruction and those who underwent Traditional Classroom Instruction?

Based on these research questions, the following hypotheses were formulated:

1. There is no significant difference in the pretest and posttest scores in learners' reading comprehension skills who underwent Differentiated Instruction.
2. There is no significant difference in the pretest and posttest scores in reading comprehension skills of learners who underwent Traditional Classroom Instruction.
3. There is no significant difference between the post-tests in reading comprehension skills among learners who underwent Differentiated Instruction and those of students who underwent Traditional Classroom Instruction.

Theoretical Underpinnings of Differentiated Instruction

The teaching strategy known as Differentiated Instruction (DI) is based on the idea that children in a classroom have a variety of needs, interests, and learning styles and that these differences should be acknowledged and accommodated.

This research aligns with the principles of Differentiated Instruction, which can complement the constructivist approach highlighted by Wang (2022). Constructivism prioritizes active student involvement in learning, fostering the growth of critical thinking and decision-making abilities. Within a constructivist classroom, students assume a pivotal role, while the teacher acts as a facilitator, organizer, and guide. The primary aim is for students to construct meaning from their own experiences and knowledge, challenging conventional educational paradigms and fostering a

sense of ownership over their learning process. The fundamental aspects of the constructivist approach can be anchored on the Differentiated Instruction which recognizes students' subjectivity and fosters independent learning and intrinsic motivation.

This study could also be supported by the Zone of Proximal Development (ZPD) theory, as discussed by Irshad, Maan, Batool, and Hanif (2021). The ZPD theory underscores the space between a child's current developmental level, achieved through independent problem-solving, and their potential developmental level when guided by an adult. It provides a framework for assessing children's internal mental development, representing the gap between what children currently understand and what they are capable of learning with guidance and support (Schaffer, 2009). Within this framework, Differentiated Instruction can bring an instruction that would connect to a student's unique ZPD, offering them varied ways to progress from their previous learning to more complex and advanced concepts with appropriate assistance.

Yaghoob and Hossein (2016) discussed the Multiple Intelligences Theory, originally proposed by Gardner in 1983. The theory posits that individuals possess various types of intelligence including linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, and naturalistic intelligence. He argued that these multiple intelligences are essential for individuals to engage purposefully and creatively in society. Recognizing and understanding students' differences and learning styles, including their multiple intelligence profiles, are crucial for successful education. However, traditional teaching often prioritizes logical and linguistic intelligence, neglecting other dimensions of intelligence. Therefore, identifying students' intelligence profiles is important for instructional planning and implementation. DI offers a variety of educational methodologies, approaches, and activities that recognize and accommodate multiple intelligences to meet the individual needs and preferences of each student.

Moreover, this study is also anchored on Universal Design for Learning (UDL). According to Al-Azawei, Serenelli and Lundqvist (2016), researchers in the field of Universal Design for Learning (UDL) propose that the design of "accessible" content and its delivery within an "accessible" learning environment can enhance the learning experience for all students, irrespective of individual learning abilities. While UDL acknowledges the uniqueness of the learning process, it focuses on curriculum design techniques aimed at minimizing the implications of learner differences (Courey, Tappe, Siker, & LePage, 2012). Consequently, UDL is deemed significant across various learning settings, with empirical research indicating promising outcomes from UDL adoption in terms of academic performance and learner perceptions (Burgstahler, 2011; Rao, Ok, & Bryant, 2014). DI works the same as with UDL principles by emphasizing the importance of providing multiple means of activities and engagement to support learners with varying preferences, backgrounds, and learning styles.

Methodology

Research Design

In this research, the quasi-experimental design was employed, specifically utilizing the pretest-posttest control group design with matched subjects. Unlike experimental designs that incorporate random assignment, the quasi-experimental design does not involve randomization. Researchers using matched subjects design employ alternative techniques to manage potential threats to internal validity. It is important to note that matching, whether through mechanical or statistical means, is not a replacement for random assignment (Fraenkel & Wallen, 2009).

The current study employed a pretest and posttest design to assess the impact of Differentiated Instruction on reading comprehension levels before and after the treatment. This design was

chosen to examine the effects of Differentiated Instruction as a treatment for reading comprehension. Generally, this type of research is suitable when the aim is to investigate the influence of an intervention within naturally occurring phenomena without attempting to manipulate them.

Participants

The participants of this study were sixty (60) Grade-11 General Academic Strand learners of First Class National High School, the Philippines, during the school year 2016-2017. The experimental group of thirty (30) learners was exposed to Differentiated Instruction, and the control group of thirty (30) was exposed purely to Traditional Classroom Instruction. The first 30 learners belonged to General Academic Strand 1, while the second 30 belonged to General Academic Strand 2.

All sixty (60) learners participated in this study. Since the study aimed to determine the level of reading comprehension skills of learners, the participants could provide the researcher with the data needed to prove the study.

The General Academic Strand (GAS) of the participants as part of the K to 12 curriculum used a generalist approach. It encompasses several academic fields, including management, organization, social sciences, and humanities. Learners could select any college degree program from the three other strands based on their elective choice, as GAS does not specialize in any one of them.

The results of this study are important for several reasons notwithstanding their antiquity. Its longitudinal methodology offers a greater understanding of the effects of instruction on student learning by enlightening the long-term benefits of Differentiated Instruction (DI) versus traditional classroom instruction. The study, which is set in the historical framework of 2016–2017, documents educational environments and methodologies and provides insights for undertaking present-day and foreseeable issues. Its applicability to current discussions in education also emphasizes how crucial it is to share its findings to offshoot greater investigation and creative thinking in the field of education.

Distribution of Learner's Learning Preferences

Thirty (30) learners have been chosen and categorized according to their learning preferences, utilizing Gardner's Multiple Intelligence framework and the Checklist for Intelligence Strengths adapted from Armstrong (2009). It showed that there were (17%) learners in verbal-linguistic intelligence, (17%) in Logical-mathematical intelligence, (17%) in naturalistic intelligence, (10%) in intrapersonal, (10%) in interpersonal intelligence, ten percent (10%) in bodily-kinesthetic intelligence, (13%), and (6%) in visual-spatial intelligence. The data also shows that the group of learners who got the highest percentage of learners' learning preferences are verbal-linguistic, logical-mathematical, and naturalistic intelligence.

Instruments of the Study

The researcher assessed the subjects' reading comprehension skills using the Informal Reading Inventory (IRI) standardized test, adopted from Jerry Johns Basic Reading Inventory (2008). The assessment comprised two parts: a word identification (180 words) to establish a starting point, and reading comprehension with ten selections and five questions each, spanning pre-primer to high school levels.

The assessment involved automated and mediated word identification tools, consisting of 200 words grouped by grade levels from pre-primer to high school. The researcher utilized IRI codes to categorize words. The assessment started below the learner's expected level, progressing with

increasing difficulty. Each correct word earned 1 point, with ½ point for corrected mistakes. Advancement occurred when 16 points (80%) were achieved. Reading comprehension materials, also based on IRI, ranged from pre-primer to high school levels. The researcher commenced below the word identification grade level, asking participants to read passages silently. The researcher recorded comprehension discussions for ten passages, each containing five questions.

The Intervention

Gardner (1995) in Gangi (2011) theorized that intelligence is a biological and psychological potential, that can be realized to different degrees based on individual experiential, cultural, and motivational factors. In simpler terms, intelligence refers to the ability or potential to process and utilize information for problem-solving or creation. If all students are given the same content, each will have a distinct experience depending on his or her history, skills, and obstacles, as was also stated in Gangi. A teacher can tailor instruction, by offering diverse learning activities to address individual differences among students.

The researcher formulated a lesson plan using multiple intelligence. The participants in the experimental group were grouped according to eight (8) groups using the checklist developed by Armstrong (2009), utilized during student observations to aid in identifying their strengths in intelligence. While the researcher was conducting his class, he recorded and observed each participant. The multiple intelligences used were only eight (8) intelligences because of the adaptation of Armstrong's checklist. The eight (8) groups were composed of peace talkers (Linguistic Intelligence), the peacemakers (Logical-Mathematical intelligence), the peace painters (Spatial intelligence), peace dancers (Bodily-Kinesthetic intelligence), peace voices (Musical Intelligence), peace Facebook keepers (Interpersonal Intelligence), the peace travelers (Intrapersonal Intelligence), and the peace photographers (Naturalistic Intelligence). The researcher observed and recorded the participants' behavior through narrative pictures and videos. The researcher used the story of Sadako Sasaki in the lesson not only for reading comprehension and the multiple intelligence of participants but also for integrating and instilling in the minds of learners the importance of peace education in society. Activities to be used in the Differentiated Instruction were presented with a corresponding message of peace.

Pretest and post-test were given to both groups before and after the presentation of the topics. In the experimental group, learners were exposed to Differentiated Instruction using multiple intelligences. The other group received the traditional or lecture method only. A post-test was given to both groups after the intervention.

The adopted checklist for intelligence strengths from Armstrong (2009), the lesson plan, and the Story of Sadako Sasaki were included in this study.

The researcher graphically created the materials used in the reading passage entitled "Sadako's Crane for Peace" to suit the learning preferences of learners.

In this research, Traditional Instruction is a traditional method of instruction that usually includes textbook-based learning, whole-class lectures, direct instruction from the teacher, and standardized evaluations. This method was used to teach the control group. It places a strong emphasis on teacher-centered learning with little adjustment for the unique requirements and learning preferences of each student.

Procedure

The study instruments were distributed and facilitated to Grade-11 General Academic Strand learners of First Class National High School, Philippines, for the conduct of the study. The researcher personally delivered a letter of permission to the principal to conduct the study at the First Class National High School, Lambunao, Iloilo. Another was given to the assistant principal in the senior high school in whose supervision of the school the study was conducted. The researcher himself administered the instrument in his class sections.

The study being quasi-experimental in nature, involved pretest and posttest for both experimental and control groups. The researcher explained the rationale behind giving a pretest before the three-week classes started Differentiated Instruction and a posttest after the one-week classes ended. Before administering the pretest, the word recognition level of the learners in both experimental and control groups was ascertained to determine that the learners' comprehension skills in both groups were on the same level. After determining the word recognition level, the researcher used the reading passage level based on the level of words identified. The word recognition was just the basis of the researcher to identify the learners' word recognition level. Since this study was anchored on the reading comprehension level, the researcher used ten (10) passages for comprehension discussion with five (5) questions for each passage. The researcher selected the participants through match-paired scores. Both the experimental and control groups met for 60 minutes every day.

After the pretest, the researcher utilized Armstrong's (2009) checklist of learners' intelligence strengths to identify preferences in the experimental group. This understanding altered the researcher's perception of students, emphasizing diverse potential brightness. Bifulco, Moran, Jacobs, and Bunn (2007) suggest students can see themselves as bright in various ways. The researcher ensured reliability and validity using the class profile learning preferences from the Ontario Ministry of Education (2010).

On the first day of the ten-day differentiated instruction, which followed the 5 A's approach, the researcher introduced activities that included two brief film clips. The facilitator led talks about various aspects of videos, including background music, visual effects, logical principles, environmental details, and bodily motions, while keeping an eye on participants' reactions. Through multimedia experiences and reflections on several facets of the content delivered, this technique sought to actively include learners in the learning process.

During the second and third days of Differentiated Instruction, the facilitator employed a multimedia game chart to address challenging words in the reading text. The chart, featuring nine squares, revealed a hidden picture of a paper crane origami as participants clicked the correct answers. This interactive approach aimed to cater to multiple intelligences.

Subsequently, the facilitator provided diverse graphic-based reading materials aligned with learners' interests but sharing identical content. Grouping learners based on learning preferences, the facilitator utilized differentiation graphics such as choral reading for linguistic intelligence, numbers-themed graphics for logical-mathematical intelligence, colorful art graphics for visual intelligence, and various others tailored to different intelligences.

On the fourth and fifth days, participants engaged in group discussions, categorized into eight groups reflecting different intelligence. The following two days involved answering a group activity, and on the eighth and ninth days, participants prepared for the culminating activity, documented through videos and pictures. The culminating activity, on the ninth day, featured performances rated using a rubric from the Department of Education Tambayan Philippines.

During the intervention, learners actively participated and completed tasks enthusiastically, especially during the culminating activity. The Differentiated Instruction, with a focus on learners' interests and preferences, inspired emotional responses, including tears of joy and a musical performance, emphasizing unity. The researcher documented observations through an observation form, with video records and pictures serving as additional documentation.

Statistical Data Analysis

This study used a quasi-experimental group pretest and posttest design using match-paired subjects. One group underwent experimental treatment, and the other underwent the control group. Pretest and posttest results were documented to assess the comprehension skills of both groups. The mean and standard deviation were used to analyze the pretest and post-test outcomes for both groups, comparing their effectiveness.

The t-test for correlated samples gauged the significant difference between the pretest and post-test of Differentiated Instruction (DI) and Traditional Classroom Instruction. Meanwhile, the t-test for independent samples assessed the significance between the post-tests of the two groups.

Descriptive research, as outlined by Rillo and Alieto (2020), involves the systematic collection, analysis, categorization, and summarization of data to understand current conditions, trends, and causal relationships. This method offers comprehensive insights into the studied group, often without relying heavily on statistical analysis. Through qualitative and quantitative descriptions, descriptive research identifies the practicality and acceptance of instructional materials.

Ethical Considerations

To comply with ethical consideration guidelines, the real name of the school where this study took place should not be revealed. The author has pseudonymized the name of the school as "First Class National High School, Philippines" to protect its identity. Before the conduct of the study, the researcher secured formal consent from the school's head and the respondents of the study. This consent embodies the rights, responsibilities, and other protocols that need to be known by those who are involved in the investigation. The researcher discussed the proceedings in the conduct of the study among the participants, safeguarding the confidentiality of participants' personal information, and using coding or pseudonyms to anonymize data.

Sources of information are properly cited. The researcher ensured that the subjects or recipients of the study would be safeguarded as to their privacy throughout the study.

Results and Discussion

Descriptive Data Analysis

This study intends mainly to determine the level of reading comprehension skills of General Academic Strand Learners of First Class National High School. The data gathered in this study were presented, analyzed, and interpreted. The means were obtained using fifty (50) item questions in ten (10) reading passages.

This part illustrates the reading comprehension skills of participants in the experimental and control groups before and after treatment, presenting descriptive statistics analyzed using SPSS.

Level of Reading Comprehension Skills of Learners in the Pretest Who Underwent Differentiated and Traditional Classroom Instruction. The results revealed that the level of reading comprehension skills among General Academic Strand learners in the pretest, who

underwent Differentiated Instruction (M=32.13, SD=3.93), and Traditional Classroom Instruction (M=32.13, SD=3.93), was at the "fifth level." This suggests that both groups demonstrated an equivalent fifth level of reading comprehension skills. Table 1 shows the data.

Table 1

Level of Reading Comprehension Skills of Learners in the Pretest Who Underwent Differentiated Instruction and Traditional Classroom Instruction

Categories	N	Mean	Description	SD
Differentiated Instruction Pretest	30	32.13	Fifth Level	3.93
Traditional Classroom Instruction Pretest	30	30	Fifth Level	3.93

IRI Code Scale	Grade Level Description
HS (46-50)	High School Level
MS (41-45)	Middle High School Level
6867(36-40)	Sixth Level
8595(31-35)	Fifth Level
5414(26-25)	Fourth Level
3183(21-25)	Third Level
8224(16-20)	Second Level
7141(11-15)	First Level
A (6-10)	Primer Level

Level of Reading Comprehension Skills of Learners in the Posttest Who Underwent Differentiated and Traditional Classroom Instruction. Table 2 illustrates that General Academic Strand learners who received Differentiated Instruction achieved a "Middle High Level" in their post-test reading comprehension skills (M=44.97, SD=3.60). In contrast, the level of reading comprehension skills for learners in the Traditional Classroom Instruction, who did not undergo Differentiated Instruction, was at the "sixth level" (M=38.00, SD=3.30). This suggests that Differentiated Instruction leads to a one-step higher level of reading comprehension skills compared to Traditional Classroom Instruction. Table 2 shows the data.

Table 2

Level of Reading Comprehension Skills of Learners in the Posttest Who Underwent Differentiated Instruction and Traditional Classroom Instruction

Categories	N	Mean	Description	SD
Differentiated Instruction Posttest	30	44.97	Middle High School Level	3.60
Traditional Classroom Instruction Posttest	30	38.00	Sixth Level	3.30

IRI Code Scale	Grade Level Description
HS (46–50)	High School Level
MS (41–45)	Middle High School Level
6867(36-40)	Sixth Level
8595(31-35)	Fifth Level
5414(26-25)	Fourth Level
8224(16-20)	Third Level
3183(21-25)	Second Level
7141(11-15)	First Level
A (6-10)	Primer Level

Inferential Data Analysis

The significance of the level of reading comprehension skills of General Academic Strand Learners was also ascertained in the investigation.

A calculated t-test for correlated samples was utilized to assess the variation in the reading comprehension skills of the experimental and control groups before and after the intervention, as well as the discrepancy in reading comprehension skills between the two groups. The significance threshold was established at a 0.05 alpha level.

Differences in the Level of Reading Comprehension Skills of Learners in the Pretest and Posttest Who Underwent Differentiated Instruction. The t-test results presented in Table 3 indicate a significant difference in the pretest and posttest levels of reading comprehension skills for learners who underwent Differentiated Instruction, $t(29)=27.449$, $p<.05$. The two-tailed probability of .000 was lower than the .05 set level of significance. Therefore, the null hypothesis, suggesting no significance in the pretest and posttest reading comprehension skills of learners who underwent Differentiated Instruction, was rejected. Table 3 shows the data.

Table 3

Differences in the Level of Reading Comprehension Skills of Learners in the Pretest and Posttest Who Underwent Differentiated Instruction

Categories	Mean	df	T-value	2-Tailed Probability
Differentiated Instruction				
Pretest	32.13			
		29	27.449	.000
Posttest	44.97			

*Significant at 0.05 alpha, $p<0.05$

Differences in the Level of Reading Comprehension Skills of Learners in the Pretest and Post-Test Who Underwent Traditional Classroom Instruction. The results of the t-test for correlated samples presented in Table 4 indicate a significant difference in the pretest and posttest means of General Academic Strand learners who underwent Traditional Classroom Instruction, $t(29)=10.621$, $p<.05$. The two-tailed probability of .00 was lower than the .05 level of significance. As a result, the null hypothesis of no significance in the pretest and post-test for General Academic Strand learners who underwent Traditional Classroom Instruction was rejected. Table 4 shows the data.

Table 4

Differences in the Level of Reading Comprehension Skills of Learners in the Pretest and Posttest Who Underwent Traditional Classroom Instruction

Categories	Mean	df	T-value	2-Tailed Probability
Differentiated Instruction				
Pretest	32.1333			
		29	10.621	.000
Posttest	38.0000			

Differences in the Level of Reading Comprehension Skills of Learners in the Posttest Who Underwent Differentiated Instruction and Traditional Classroom Instruction. The results of the t-test for independent samples, presented in Table 5, indicate a significant difference in the posttest level of reading comprehension skills between Differentiated Instruction and Traditional Classroom Instruction, $t(28)=7.817$, $p<.05$. The two-tailed probability of .00 was lower than the .05 set level of

significance. Therefore, the null hypothesis of no significance in the posttest level of reading comprehension skills between Differentiated Instruction and Traditional Classroom Instruction was rejected. Table 5 shows the data.

Table 5

The difference in the Level of Reading Comprehension Skills of Learners in the Posttest Who Underwent Differentiated Instruction and Traditional Classroom Instruction (t-test matched pairing)

Categories	Mean	df	T-value	2-Tailed Probability
Differentiated Instruction	44.97			
		58	7.817	.000
Traditional Classroom Instruction	38.00			

*Significant at 0.05 alpha, $p<0.05$

The study revealed the following key findings:

1. General Academic Strand learners in both Differentiated Instruction and Traditional Classroom Instruction exhibited the same "fifth" level of pretest reading comprehension skills.
2. Learners in Differentiated Instruction demonstrated a "middle" level of posttest reading comprehension skills, while those in Traditional Classroom Instruction achieved a "sixth" level.
3. A significant difference was observed in the pretest and posttest reading comprehension skills of learners who underwent Differentiated Instruction.
4. A significant difference was noted in the pretest and posttest reading comprehension skills of learners in Traditional Classroom Instruction.
5. There was a significant difference in posttest reading comprehension skills between the experimental group and control group, with learners in Differentiated Instruction achieving higher levels than those in Traditional Classroom Instruction.

Conclusion

The study examines the effectiveness of Differentiated Instruction (DI) in fostering comprehension skills among Grade-11 General Academic Strand Learners at First Class National High School, the Philippines. Grounded in Constructivism, which asserts active knowledge construction through personal experiences, DI accommodates diverse learning styles, interests, and needs. This concept aligns with Piaget's cognitive development theory, emphasizing accommodation and assimilation processes in learning.

Additionally, the Zone of Proximal Development (ZPD) theory states that optimal learning occurs when tasks are challenging but manageable with assistance. DI seeks to scaffold learning within learners' ZPDs, hence fostering optimal cognitive growth. The Multiple Intelligences Theory emphasizes the significance of identifying and accommodating different intellect profiles to enable meaningful engagement in society. Also, the concept of Multiple Intelligences has a clear manifestation of the preferences of learners to learn and comprehend better.

Furthermore, Universal Design for Learning (UDL) promotes accessible material and learning settings to improve learning outcomes for all students. UDL adoption has produced positive results in studies, demonstrating the efficacy of DI in meeting the different needs of learners. While the study shows that Differentiated Instruction (DI) can improve comprehension abilities among Grade-11 students, its quasi-experimental methodology has limitations and may have extraneous factors that may have influenced the results. Nonetheless, using a variety of strategies can efficiently satisfy students' needs. DI activities received excellent responses from teachers and learners, showing

that they have the potential to improve learning outcomes. Recognizing these limits is critical for comprehending DI's success in various educational environments.

The findings of this study reveal:

1. The identification of a "fifth" level of achievement among General Academic Strand Learners in their pretest reading comprehension skills, highlights deficiencies in Grade 11 learners' reading capabilities. This subpar performance may be attributed to inadequate instructional strategies employed by teachers or practices in delivering classroom instruction. The learners' low achievement in reading comprehension skills could also stem from factors negatively impacting their attitudes toward reading, ultimately resulting in poor reading skill performance.

2. It appears that learners subjected to Differentiated Instruction achieved superior reading comprehension skills compared to those in Traditional Classroom Instruction. This underscores the notion that learners can enhance their learning and comprehension in reading activities when their learning preferences are taken into consideration.

3. The significant difference in learners' pretest and the posttest levels of reading comprehension skills indicates the positive impact of Differentiated Instruction on elevating learners' reading comprehension abilities. In essence, learners can effectively enhance their reading comprehension skills using tailored learning experiences in the classroom that align with their learning preferences based on their intelligence strengths.

4. The significant increase in learners' reading comprehension skills in Traditional Classroom Instruction may be attributed to factors beyond the researcher's control.

5. The enhanced reading comprehension skills of learners undergoing Differentiated Instruction compared to those in Traditional Classroom Instruction appear to affirm the effectiveness of providing learning experiences aligned with learners' preferences and learning styles.

The findings suggest that employing varied and differentiated techniques and strategies can effectively address the primary educational needs of learners when applied appropriately. Given the diverse interests, intelligences, attitudes, understandings, and skills of learners, teachers can capitalize on this diversity as a significant advantage, maximizing potential by differentiating content, process, and products. Learners acquire much of their knowledge through teachers' instruction, emphasizing the prominent role of teacher instruction in lessons. Therefore, regarding learner potential and the strength of differences, the implementation and application of differentiation are commendable practices for teachers. According to Potot, Kyamko, Sereño, and Bustrillo (2023), fostering a self-determined attitude towards learning, where students are intrinsically driven to accomplish specific learning objectives, proved beneficial in enhancing reading comprehension. Rather than employing uniform materials across all groups, the utilization of diverse resources by individual students and small groups contributed to the improvement of their reading comprehension skills.

Teacher-observers and the researcher found Differentiated Instruction events to be challenging, enriching, motivating, and inspiring. The learners' performance of skills and learning preferences serve as motivation to excel in class.

This study was productive as learner participants and teacher observers enjoyed and gained insights from the activities. Consequently, 30 learners have developed ideas and aspirations for tapping into their strengths and fully developing them, learning ways to make comprehension more

enjoyable and digital rather than a strenuous task. The researcher has gained a sense of fulfillment and discovered that more skills and talents in reading among learners can be tapped and enhanced if teachers are made aware of differentiating their instruction.

Recommendations

Based on the findings of the study, several recommendations are made to enhance the effectiveness of Differentiated Instruction (DI) in fostering comprehension skills among Grade 11 General Academic Strand Learners:

1. Policymakers and stakeholders in national development should prioritize the educational needs of institutions by allocating sufficient funding for the production of books, learning materials, and educational tools. Additionally, it is advisable that educational excursions and field trips be promoted to provide learners with hands-on experiences that complement their learning and enhance motivation.

2. Division language coordinators and curriculum specialists play a pivotal role in promoting Differentiated Instruction (DI) within classroom settings. Implementing DI can significantly impact and inspire unmotivated learners to showcase and cultivate their inherent strengths. As a key component of the K-12 curriculum, DI addresses the diverse learning styles of students, fostering increased participation and confidence in the classroom. Language coordinators and curriculum specialists must integrate differentiation into the curriculum, catering to the varied learning preferences of students. They should focus on developing and enhancing the curriculum with differentiated teaching strategies that enhance students' English proficiency both within and beyond the school environment.

3. English department heads are encouraged to implement Differentiated Instruction not only within the English department but across all subject areas to accommodate diverse learners effectively. This approach enables them to identify learners' weaknesses and leverage their strengths, facilitating substantial growth and improvement. Additionally, department heads should remind teachers under their supervision to incorporate Differentiated Instruction to enhance students' comprehension and engagement with the lesson content.

4. Teachers play a crucial role in the successful implementation of differentiated instruction, as its effectiveness relies on their knowledge, experience, skills, and enthusiasm. Seminars and workshops are highly recommended to equip teachers with the necessary skills for integrating this instruction into their classrooms effectively. They should prioritize understanding their students' needs, interests, learning profiles, and abilities, and selecting appropriate techniques for developing reading comprehension. Additionally, aspiring teachers of Differentiated Instruction can benefit from conducting research on the internet, accessing YouTube tutorials, and exploring portfolios for valuable resources and insights. Teachers should evaluate their teaching strategies and delivery methods to overcome inadequacies in students' reading comprehension skills. This could entail including more engaging and participatory activities, providing diverse reading materials, and instilling a good attitude toward reading.

5. Parents should recognize that their children have unique personalities and learning styles, which may require different educational strategies. They can support their children's learning by encouraging and appreciating their interests and preferences and providing guidance and motivation. By acknowledging and celebrating their children's strengths, parents can help alleviate any confusion or uncertainty, fostering a sense of confidence and clarity in their abilities.

6. Future researchers should address the limitations of the present study in their investigations to better understand the effectiveness of Differentiated Instruction. It is recommended that future studies explore various variables such as group composition (heterogeneous versus homogeneous), group selection and size, previous understanding, treatments, gender, and ethnicity. Additionally, researchers should investigate whether the interaction between treatment and gender explains a significant portion of the variation in improving learners' reading comprehension.

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