

Effectiveness of Differentiated Instruction in the Reading Comprehension Level of Grade-11 Senior High School Students

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***Abstract** – This study determined the effectiveness of Differentiated Instruction in the reading comprehension level of the Grade-11 senior high school students, school year 2016-2017. Specifically, it aims to determine the reading comprehension level of the control and the experimental groups in the pre-test and post-test; identify if there is a significant difference in the reading comprehension level of the control and experimental groups in the pre-test and post-test results; and identify the strengths and weaknesses in using Differentiated Instruction. Quasi-experimental method was employed in conducting the study. The respondents were the 150 Grade-11 students of a public high school grouped as control and experimental using Parallel technique. Data sources include pre-test and post-test scores, gain scores, classroom observation form, survey questionnaire, and researcher's reflective notes. The qualitative data were analysed using template analysis style and the basic approach of comprehending, synthesizing, theorizing and re-contextualizing to identify common themes and integrating thematic pieces. Based on the classroom observations, survey and researcher's reflective notes, strengths and weaknesses of Differentiated Instruction were observed. Despite the observed and encountered challenges, the statistical analysis has revealed a significant difference between pre-test and post-test results.*

***Keywords** – Effectiveness, Differentiated Instruction, Reading Comprehension Level, Senior High School*

INTRODUCTION

Reading is a basic tool for learning in the content field. Velasco [1] said that it allows an individual to gain access to various areas of knowledge and enables him to acquire and be equipped by the competencies needed in real-life tasks. As one of the precursors of literacy, Chall [2] viewed reading as the recognition of printed or written symbols and set of interrelated skills needed to comprehend meaning from varied texts which serves as stimuli for the meaning built up through the reader's past experience. The National Assessment of Educational Progress –NAEP [3] defines reading as an active process that involves the understanding of the written text, developing and interpreting meaning, and using meaning as appropriate to type of text, purpose and situation. The Philippine Informal Reading Test (Phil-IRI)[4] delineates that reading is a complex process that includes phonemic awareness, phonic, reading fluency, and reading comprehension. Moreover, it is the process of constructing meaning through dynamic interaction among the readers' existing knowledge, the information suggested by the text being

read, and the context of the reading situation. While reading lies on the process, reading comprehension focuses on the level of understanding a text. This understanding comes from the interaction between the words that are written and how they trigger knowledge outside the text. Thus, fluency in reading and the ability to read with comprehension serve as the cornerstone of a child's success in school and later on throughout his life. Viewed as a basic skill, learning to read and understand what was read are integral part in the life of every individual and indispensable in the circle of educational system.

The Basic Education Curriculum of the Department of Education aims to produce functionally literate graduates where everyone possesses the required and expected skills needed in the 21st century. Hence, reading programs have been set up in all school divisions by both public and private groups in order for the students to develop a good reading habit. Along with the tag line "Reading Skills, Key to Learning," the ECARP (Every Child a Reader Program) and DEAR

(Drop Everything and Read) were created which were designed to equip students with strategic reading and writing skills. Moreover, subject offerings in the K+12 program were aligned with these programs in the aim of producing multi-literate and independent problem solvers. One of the core subjects offered in all tracks in the Senior High School curriculum is Reading and Writing which focuses on the development of reading and writing skills as applied to a wide range of materials other than poetry, fiction and drama. It embodies three important aspects; 1) first is the in-depth discussion of reading and thinking strategies across text type in order to hone students' reading skills; 2) next is the understanding of text and context connections as applied to a wide array of reading materials and 3) lastly, the exposure of students in writing as complementary activity of reading. This subject aims to aid the deteriorating habit of students in reading and writing by exposing them in academic and professional texts which have practical relations in real-life context.

However, despite the government efforts and school programs that uphold the DepEd's vision, still, the growing problem in reading persists. In the latest Philippine-IRI Test of the Schools Division of Manila, S/Y 2014-2015 reported in the study of Magistrado [5], the reading test scores revealed that one-sixth to one-third of elementary graduates were identified as "frustrated" readers while another one-third is "instructional" readers. Both levels are below the desired reading level at the end of elementary cycle. The same findings were observed in study of Briones [6] regarding the 2014 Philippine-IRI Test result in the Schools Division of Camarines Sur where 55% of elementary graduates were found to be frustrated readers showing withdrawal from reading instructions, and having poor skills in word recognition and reading comprehension; 33% of these students were classified instructional readers having scored 90-96% in word recognition and 59-79% in reading comprehension; and only 12% scored 97-100% in word recognition and 80-100% in reading comprehension, hence considered as independent readers. These results pose an alarming case not only to elementary teachers but also to all secondary teachers because reading is a much needed skill in the higher level of the academe. Such problem is true in the school where the present study was conducted. The action research by San Agustin [7] in the same school revealed that 270 out of 360 Grade-7 students (75%) find it difficult to read or cannot read at all. Two of the major factors identified were the weak support system coming from the parents to the learners

and lack of dynamics in the teaching strategy of the teachers in delivering their instructions. It was recommended that before teachers give the reading instruction, they should consider first the needs and strengths of each student; a collaboration in reading tasks or activities between the teachers and the students must be given emphasis; and teachers should accommodate the differences in students' readiness, levels, interests and learning profiles. Meanwhile, to relate the importance of the connection between reading to lives of the learners, Anderson (1987) in his Schema Theory in Reading maintained that the reader's organized knowledge about life and the world are the bases for the reader's comprehension, learning, and remembering the ideas in the text. He maintained that readers create meanings and comprehend the text by their prior knowledge and comprehend the text by these and their experiences. Comprehension and meaningful learning take place when the idea on the text being read is related in some sensible way to ideas the learner already possesses; hence, teachers should ensure to relate what the students already know in the text that they are going to read. If these concerns will not be addressed and no appropriate intervention will be given, the students will have difficulty in reading that may cause impediment in learning other skills and in achieving high academic performance or similar to a ripple effect, it may lead to a bigger challenge as students escalate in the educational ladder.

Due to the foregoing situation, the current study about the effectiveness of Differentiated Instruction in the reading achievement of Grade 11 students was initiated by the researcher. Differentiated Instruction as an approach that enhance the reading comprehension of students was looked into as it renders dynamics in teaching pedagogies focusing on teacher-student interaction, while addressing the students' interest and individuality. It revolves in a student-centered curriculum where students' collaboration is evident and the role of the teacher is more of the facilitator of learning. With the activities, exercises and assessment geared towards individualization, this study aimed to test the effectiveness of differentiated instruction in the problems encountered by the teachers and students in reading.

OBJECTIVES OF THE STUDY

The study investigated the effectiveness of differentiated instruction in the reading comprehension level of the students in its hope to offer a solution to the gaps experienced by teachers and students in reading.

Consequently, the study dealt in determining the strengths and weaknesses of using differentiated instruction in the improvement of students' level of reading comprehension. In essence, the results of this study may specifically guide the students and teachers in improving the students' level of reading comprehension through offering creative and quality instruction in reading.

MATERIALS AND METHODS

Research Design

This study employed a mixed-method approach: quasi-experimental design was used to address the first two objectives of the study. T-test for independent samples was used to determine if there was a significant difference between the pre-test and post-test scores and paired t-test to see if there was improvement in the reading comprehension of the control and experimental groups. While in answering the objective for answering the strengths and weaknesses in using Differentiated Instruction, methodological triangulation method was used. The point of view of the students, three English teacher-observers and the reflective notes/essays by the teacher-researcher were considered and analysed. These qualitative data were analysed using template analysis style and the basic approach of comprehending, synthesizing, theorizing and re-contextualizing to identify common themes and integrating thematic pieces.

Respondents of the Study

The respondents of this study were the 150 Grade-11 Senior High School in a public school during the school year 2016-2017. The entire population of Grade11-students were used as the respondents. It has four sections; the two groups having 38-students each was assigned as experimental while the other two groups having 37-students was assigned as the control group. The equivalent groups were classified based on their academic performance in their previous grade in English (*Oral Communication in Context*) during the first semester of the school 2016-2017.

Research Instruments

The research instruments primarily include the teacher-made reading comprehension test which was validated by three language and reading-teacher experts. It has a 50-item questions aligned with the topics stipulated in the DepEd' s curriculum guide for *Reading and Writing*, a core subject in Senior High School. Table of Specifications, which served as the test's blueprint, was crafted prior to the making of the reading

comprehension test. The five levels of reading comprehension were based on the researcher's reading comprehension scale. Students who got a score between 41-50 were in the *Advanced level*; for those who have 31-40 scores were in the *Proficient level*; 21-30 was in the *Approaching level*; 11-20 was in the *Developing Level*; and the lowest level was *Beginning* where students' score is between 1-10 only. Moreover, it underwent a dry-run and reliability testing to establish acceptable reliability coefficient value. The reliability index result was 0.75%, indicating that the test is good for a classroom testing.

Two sets of learning modules were crafted as well by the researcher. The experimental group were given modules tailored after DI while the control group followed the conventional approach. The format used in both sets was the same. This format was adopted from the suggested framework given by Carol Ann Tomlinson [8]. A few modifications were made to fit the context of the research study. Even though the modules followed the same format, the content differed along with the presentation and manner of delivery of lessons for both groups. However, both modules have the same learning objectives, learning competencies, and reading materials. This was intentionally done to show that though the presentation and delivery differed, the objectives and competencies needed to be achieved were just the same. Classroom observation forms and survey questionnaire were also used in the study. Three English teachers were given observation form to assess the conduct of instruction of the teacher using DI. Likewise, students were given survey questionnaires to determine their insights about the use of DI in teaching them. Lastly, the teacher-researcher also made reflective notes while using DI to share his personal insights about its strengths and weaknesses.

Research Procedure

Foremost, the researcher sought approval from a public secondary high school and the Department of Education (DepEd- Camarines Sur Division) authorities for the conduct of the study. Prior and informed consent were accomplished by the respondents to ensure compliance to ethical standards. Then the researcher prepared and asked for validations of the teacher-made test which and learning modules used in the study. Both groups were asked to take the pre-test to identify their reading comprehension levels during the initial stage of the study. Then, the conduct of lessons using conventional method for the control group and DI for the experimental group followed. The course ran for

almost two months having 24-contact hours or 6 weeks. Post-test was administered after to measure the progress and improvement of the students. T-test (*for independent samples*) was used to determine the significant difference in the performance of the control and experimental groups before and after the conduct of the study, while paired T-test (*for dependent sample t-test*) was used to determine whether there was significant difference in the pre-test and post-test results of both control and experimental groups. Moreover, classroom observation was conducted by three senior English teachers to assess the effectiveness of DI in reading. Survey questionnaire with extended-response question was also given to the students taught using DI, and personal notes were written by the teacher-researcher discussing his entire experiences using DI. In this way, issues regarding the strengths and weaknesses of DI were discussed hand-in-hand.

Data Analysis

Descriptive statistics such as frequency and percent were used to quantify and find the frequency and rate of the students with regards on their levels of reading comprehension. Weighted mean was used to quantify the results of the classroom observation by the teachers and the survey given to students. T-test (for independent samples) was used to determine the significant difference in the performance of the control and experimental group before and after using the DI while paired T-test (dependent sample t-test) was used to determine whether there was significant difference in the pre-test and post-test results of both control and experimental group.

RESULTS AND DISCUSSION

Table 2. RC Level, Mean Scores, Standard Deviations and Group Mean Scores in the Pre-test and Post-test Results of the Students

Reading Comprehension Levels	Control (n=76)				Experimental (n=74)			
	Pre-test Mean	SD	Post-test Mean	SD	Pre-test Mean	SD	Post-test Mean	SD
Advanced (41-50)	0	0	0	0	0	0	42.25	1.2
Proficient (31-40)	31.43	0.22	32.67	2.37	33	2.17	33.06	2.45
Approaching (21-30)	24.31	2.79	24.71	2.88	23.91	2.7	24.92	2.8
Developing (11-20)	16.32	2.98	17.44	1.89	16.65	2.23	19.6	0.92
Beginning (1-10)	0	0	0	0	0	0	0	0
Group Mean Scores	21.1	5.65	23.3	5.75	21.8	5.72	27	6.3

Table 1 shows that the changes in pre-test and post-test results in the experimental group were notable as compared with control group. In the result of pre-test, none of students in both groups fall under the level of *Beginning*; 32-students (43%) were *Developing*; 34-students (46%) were *Approaching*; 8-students (11%) were *Proficient* and no student reached the *Advanced* level. Conversely, the post-test result showed that none of the students in both groups fall under the level of *Beginning*; students under *Developing* dropped to 10 (14%); 40-students (54%) were *Approaching*; students under *Proficient* doubled to 16 (21%) and 8-students (11%) reached the *Advanced* level.

Table 1. Frequency and Percent of Students in their Reading Comprehension Levels

Reading Comprehension Level	Conventional Approach (Control Group) n=76		Post-test		Differentiated Instruction (Experimental Group) n=74		Post-test	
	F	%	F	%	F	%	F	%
Advanced (41-50)	0	0	0	0	0	0	8	11
Proficient (31-40)	7	9	12	16	8	11	16	21
Approaching (21-30)	32	42	35	46	34	46	40	54
Developing (11-20)	37	49	29	38	32	43	10	14
Beginning (1-10)	0	0	0	0	0	0	0	0
Total	76	100	76	100	74	100	74	100

In identifying the reading comprehension level of the students, the researcher determined and analysed the mean scores they obtained in the pre-test and post-test results. Table 2 shows student mean scores, standard deviations and group mean scores using independent sample t-test before and after conducting the study.

The pre-test results on table 2 showed the group mean scores of the control group (21.1, SD= 5.65) and experimental group (21.8, SD= 5.72) whose ranges were in between 21-30 in the Reading comprehension scale; hence, it indicated that the control and experimental groups were both in the Approaching level before giving the instruction. After the entire course of teaching, the post-test results showed that the control group gained an increase in their mean scores having 23.3 (from 21.11 before) with SD of 5.75. A notable increase was also observed in the mean score of the experimental group having 27 (from 21.76 before) with SD of 6.3; however, though both groups have increased in their mean scores (23.3 > 21.1 for control; 27 > 21.8 for experimental), their ranges were in between 21-30 in the Reading comprehension scale, thus the reading comprehension of both groups were still under the category of Approaching level.

As indicated by the result, there were individual increases in the scores but not enough to report notable improvement for the group performance. The result of this study implied that there must be a differentiation of content as one of the core features of differentiated instruction. In the conduct of the present study, D.I. focused only on the differentiation of processes and outputs. No differentiation of content was done because the researcher was bound to follow the content of the lessons stipulated in the curriculum guide for senior high school; hence, the researcher gave the same content to both control and experimental groups. The result further implied that D.I. requires a longer span of time to measure its effectiveness in relation to the investigated skill or competence. This corresponded to the personal notes written by the teacher-researcher regarding the challenges he encountered using D.I.

“...my number one “nemesis” in implementing my lesson was time. Though I carefully planned and selected the activities and assessment included in my lessons, during the actual discussion, I was not really given the luxury of time. The different activities were carried as planned...”

The point of view of the three teacher observers and the survey results from students reflected the same findings. Based on the classroom observation, it revealed that time allotted for the activities and the limited time to prepare and work for students' outputs were some of the weaknesses on how D.I was used and delivered by the teacher-researcher. Meanwhile, the extended responses of the students in the given survey pointed out that time constraints was the problem encountered by students in doing their tasks and activities.

The result of the present study affirmed with Humes' [9] findings as he analyzed the effectiveness of Differentiated instruction in teaching reading to middle school students. After several months of using D.I. his study showed that the students who were treated under the given intervention obtained higher scores than those who were given with conventional instruction. However, their final average rating in the given reading test is still in the average level. With the result, he suggested that there were three crucial elements for the success and effective use of differentiated instruction. First is the knowledge and ability of the teacher to differentiate the content, process and output of the teaching-learning process; second is the time element for the planning and execution of instruction; and last is the ongoing use of assessment to gather information about where students are in their learning and about their readiness, interests and learning preferences. He emphasized that if teachers will use this information to vary the learning environment, instruction, and assessment and evaluation, DI can be of great help in determining the success of students in reading.

The data on table 3 revealed that the pre-test scores of the control group taught using conventional approach (M=21.11, SD=5.651) did not differ significantly than those with the experimental group taught using DI (M=21.76, SD=5.721), $t(148) = -.702, p=.484$. Therefore, students before the implementation of intervention have the same level of reading comprehension.

Table 3. T-test of Difference between Pre-test and Post-test Results

Type of Test	Control Group (n=76)			Experimental Group (n=74)			T	P
	M	SD	RC Level	M	SD	RC Level		
Pre-test	21.11	5.65	Approaching (21–30)	23.31	5.75	Approaching (21–30)	-.702	.484
Post-test	23.30	5.75	Approaching (21–30)	27.00	6.33	Approaching (21–30)	-3.74	.000

Df: 148

After the entire course, the post-test scores of the experimental group (M= 27.00, SD=6.33) taught using differentiated instruction was significantly higher than those with the control group taught using conventional approach (M=23.30, SD=5.750), $t(148) = -3.74, p=.000$; hence, differentiated instruction was more effective than the traditional approach in improving students' reading comprehension.

Table 4 shows the paired t-test between pre-test and post-test results of the control and experimental groups taught using Conventional Approach and Differentiated Instruction.

Table 4. Paired T-test between Pre-test and Post-test Results

Group of Students	Mean (SD) Pre-test	Mean (SD) Post-test	Df	t-value	p-value
Control Group (N=76)	21.11(5.651)	23.3 (5.75)	75	-5.91	.000
Experimental Group (N=74)	21.76(5.72)	27 (6.33)	73	-10.67	.000

It can be gleaned in the result that the post-test scores (M=23.3, SD= 5.75) of the students taught using conventional approach was significantly higher than its pre-test scores (M=21.11, SD=5.65), $t(148) = -5.91$, $p=.000$. This implied that the control group taught using conventional approach improved their reading comprehension levels. However, this change was not as high as compared with the mean scores obtained by the experimental group. The post-test scores of the experimental group taught using differentiated instruction (M=27, SD=6.33) was significantly higher than its pre-test scores (M=21.76, SD= 5.72), $t(148) = -10.67$, $p=.000$. This means that students who were taught using DI improved their reading comprehension level. With the result, it can be concluded that conventional instruction approach and DI both helped to improve the reading comprehension of the students. However, as indicated by the gain scores obtained by both groups, DI was more effective than the conventional approach.

Table 5. T-test of Difference between the Gain Scores obtained by the Control and Experimental groups

Group of Students	N	Mean (SD)	Df	T-value	p-value
Control Group	76	2.20 (3.24)	148	-4.961	.000
Experimental Group	74	5.24(4.23)	148		

Data on table 5 showed that the obtained gain scores of the students taught using differentiated instruction (M=5.24, SD=4.23) was significantly higher than those taught using conventional approach (M=2.20, SD=3.24), $t(148) = -4.961$, $p=.000$; hence, differentiated instruction was more effective than the

conventional approach in improving students' reading comprehension

The results of the t-test and paired t-test in current study affirmed Jefferson's [10] assertion that the addition of evidence-based differentiated reading instruction was beneficial in teaching reading. The result of his study revealed that students provided with varied and tiered reading materials improved reading outcomes for the intervention group as compared to those students who were provided core curriculum instruction. The significant increase in gain scores by the experimental group further corroborated Harem's [11] claimed regarding the three crucial elements in teaching reading and enhancing reading comprehension of students. These were: 1) learners must be given varied reading materials that are familiar and connected to their personal lives; 2) teaching reading must be constructive and creative, one which responds to students' needs and varied learning styles; and the activities included in teaching reading must be interesting and enjoyable. Furthermore, the present study confirmed Clay's [12] notion that the primary consideration in reading instruction should be the needs and strengths of each child. It is only through assessment that teaching decisions can be made as assessment provides the data that inform good instruction. Finally, the present investigation concurred with Alvarez [13] as he suggested that the lessons to be included in teaching reading to students must be highly contextualized to the nature and background knowledge of the learners. Teachers should find ways in order to look for local reading materials that can be considered as counterparts of foreign text in teaching reading to students.

Strengths and Weaknesses of Using Differentiated Instruction

Table 6. Weighted Mean Results of Teachers' Observation

Areas	Weighted Mean	Interpretation
A. Content and Procedure	3.67	Evident
B. Teaching Methodology	3.97	Evident
C. Students' Participation and Learning	3.72	Evident
General Weighted Mean	3.79	Evident

The data reflected the teacher-observers' responses on how the teacher-researcher conducted differentiated instruction in the classroom. Based on the result, the area of *Content and Procedure* has a sub-mean of 3.67

(evident) which signifies that the important elements of Differentiated Instruction such as the contextualization of the topic based on the nature and knowledge of the learners; content of the lesson is responsive to students' abilities and needs; the lesson offers multiple avenues for students' creativity; the questions embedded in the lesson allow the students to be reflective and critical thinkers; the lesson has varied activities to develop the competencies stipulated in the curriculum guide and the lesson allows the students to be independent problem solvers were all present in the lesson.

In the area of *Teaching Methodology*, the sub-mean is 3.97 (evident) which signifies that the important elements of Differentiated Instruction such as creativity in discussing and presenting the lesson; collaboration between teacher and students ; giving variety of management strategies to help target instruction ; giving problem solving tasks; giving Flexible groupings to promote learning; and giving varied collaborative activities were all present in the delivery of instruction of the teacher.

And in the third area, *Students' Participation and Learning* has a sub-mean of 3.72 (evident) which signifies that the important elements of DI such as students' engagement and students are given the chance to show their creativity, to name a few were present and evident in the learning process of the students.

Though the classroom observation result in Table 6 showed a high general weighted mean (3.79, Evident) on how the teacher-researcher delivered the lesson using DI, the thematic presentation of the extended responses of the teacher-observers showed that there were still weaknesses in the used of D.I. that every teacher must consider.

Table 7. Weighted Mean Results of the Survey given to the Students taught using DI

Areas	Weighted Mean	Interpretation
A. Content of the Lesson	3.84	Strongly Agree
B. Teaching Methodology	3.82	Strongly Agree
C. Students' Participation and Learning	3.88	Strongly Agree
General Weighted Mean	3.84	Strongly Agree

Based on the data showed in table 7, the *Content of the lesson* has a weighted mean of 3.84 (*Strongly Agree*) which means that the students find the elements of DI helpful for them to comprehend the content of what was read. In the area of *Teaching Methodology*, it has a weighted mean of 3.82 (*Strongly Agree*) which signified that the students find the delivery of the

teacher using DI effective. While in the third area, *Students' Participation and Learning*, it has a weighted mean of 3.88 (*Strongly Agree*) which signified that the students taught using DI find the intervention effective because it involves their maximum participation and engagement.

Table 8. Thematic Presentation of Observed Strengths and Weaknesses of DI based on the Extended Responses of the Teacher Observers

Strengths	Weaknesses
<p>Content and Procedure</p> <ul style="list-style-type: none"> -reading materials given to the students were familiar to their knowledge and nature -activities and assessment allowed the students to show their creativity <p>Teaching Methodology</p> <ul style="list-style-type: none"> -used varied activities that aided the maximum participation of the class -creative presentation and discussion of the lesson. -framed questions stimulated students' thinking -discussion was student-centered and less teacher-talk -creative instructional materials that helped in getting the attention of the students <p>Students' Participation and Learning</p> <ul style="list-style-type: none"> students were able to work cooperatively with their classmates during group activities students were able to show their creativity in their outputs - students were engaged in the activity because of the creative discussion 	<p>Content and Procedure</p> <ul style="list-style-type: none"> - time allotted for the activities and discussion of the lesson - the number of reading materials given to the students; teacher should give at least two, discuss it thoroughly and vary the activities <p>Teaching Methodology</p> <ul style="list-style-type: none"> -difficulty in supervising the students during group works -the noise created doing the activities - though there were varied strategies, there were still some which cannot be applied to other students - the preparation and setting up of the instructional materials impeded the start of discussion on time <p>Students' Participation and Learning</p> <ul style="list-style-type: none"> - students were given limited time to prepare and work for their outputs -limited summative assessment were given to the students

Strengths and Weaknesses of DI based on the Extended-Responses (Writing Prompts) of the Students

Synthesizing the extended responses of students, the observed strengths of D.I focused on two aspects. First is *Activities that helped the students be engaged in the discussion* which includes challenging questions posed by the teacher, role playing and simulation activities, group activities, listening to audio-materials and discussing its lyrics, and watching video clips. Second is *Interesting outputs and presentation made in the classroom* which includes outputs that developed students' creativity, challenging tasks that allow students to think fast and brainstorm, and authentic or real-life tasks.

Similarly, the observed weaknesses of differentiated instruction have two aspects. First is *Time and other constraints in doing the task, activities and outputs*

which includes limited time to prepare for the activities and lack of available materials needed to do the given tasks. Second is *Conflict that arises in doing collaborative works* which includes dependence and annoyance of other groupmates who are very noisy while doing the given tasks. Though the survey to students showed a high general weighted mean (3.84, *Strongly Agree*) on how the teacher-researcher delivered the lesson using DI, the thematic presentation of the extended responses of the students showed that there were still weaknesses in the use of D.I. that must be considered by the teacher in delivering the instruction.

Strengths and Weaknesses of DI based on the Reflective Notes of the Teacher-Researcher

The teacher-researcher's reflection on his personal experiences and progress in the field was narrated using *Methodological Notes, Theoretical Notes* and *Personal Notes*. In general, implementing Differentiated Instruction posed three utmost challenges namely: time allotment in order to carry out the lessons; supervising and monitoring the students while doing group works, especially the inevitable noise; and rigid preparation of instructional materials together with lots of planning paces. Despite these challenges, lessons delivered using Differentiated Instruction became beneficial in promoting learning and improving the level of reading comprehension of the students. The remarkable benefits for the teacher and students were as follows:

1. The varied activities aided the maximum participation of the students in discussing what was read;
2. The priming activities given to students encouraged them to be engaged in the reading materials they read;
3. The real-life or authentic tasks in the activities given to the students helped them become more motivated in the discussing the reading materials because it is connected to their personal lives;
4. The activities and assessment given to students allowed them to show their creativity and helped them develop their critical thinking and problem solving skills
5. The collaboration between the students and teacher gave an opportunity to the teacher to know more his students and craft better plans on how students must be taught and assessed in reading; and,
6. The teacher's reflections and realizations in carrying out all the lessons enriched his perspective

in teaching reading and fortified his eagerness to do his best in teaching the students.

CONCLUSION

Even though the result showed that the students did not change their reading comprehension level due to some reasons (e.g. restriction in differentiating the content of lessons), the result still revealed that Differentiated Instruction was more effective than the Conventional Approach in improving the reading comprehension of the students. Teachers then should proactively plan varied approaches to what students need to learn, how they will learn it, and/or how they will show what they have learned in order to increase the possibility that each students will learn as much as he can or she can, as efficiently as possible (Tomlinson, 2003). This is where Differentiated instruction (DI) assumes a role in dealing with varying needs of learners. It is a process that allows all students to access the same classroom curriculum by providing entry points, learning tasks, and outcomes that are tailored to their needs (Hall, Strangman, & Meyer, 2003). Meanwhile, the use of DI has also its strengths and weaknesses. In the study, these were observed through considering the point of view of the teacher observers, students and teacher-researcher. The real-life or authentic tasks in the activities helped the students become more motivated in the discussing the reading materials because it is connected to their personal lives. The activities and assessment given allowed them to show their creativity and helped them develop their critical thinking and problem solving skills. However, there were also challenges encountered like the time and other constraints in doing the task, activities and outputs which includes limited time to prepare for the activities and lack of available materials needed to do the given tasks. Also the conflict that arises in doing collaborative works which includes dependence and annoyance of other groupmates who are very noisy while doing the given tasks. Despite these challenges, lessons delivered using D.I. became beneficial in promoting learning and improving the level of reading comprehension of the students as observed in the personal notes of the teacher-researcher. Moreover, it was found out that students' reading comprehension level significantly improved. The statistical analysis has revealed a significant difference between pre-test and post-test results; thus, Differentiated Instruction has facilitated students' improvement in their reading comprehension. The findings of the present study were in parallel with the findings of McCullough (2015)

when he investigated whether differentiated instruction had a positive effect on the vocabulary and the reading comprehension of struggling 2nd grade students. The data revealed positive gains in students' reading performance after the implementation of differentiated instruction. Moreover, the study of Firmender, et al. (2013) examined the effect of a differentiated, enriched reading program on students' oral reading fluency and comprehension using the school wide enrichment model-reading (SEM-R). The results of the study demonstrated that an enrichment reading approach, with differentiated instruction and less whole group instruction, was as effective as or more effective than a traditional whole group basal approach. Having said these and with the result of the present study, an implication for positive social change gives vital information for teachers to become more effective in their instructional methods, providing struggling readers opportunities to gain the essential knowledge and skills that will enable them to become self-sufficient, confident, and competent individuals. In a reading classroom composed of different learners with varied learning styles and multiple intelligences, reading teachers must accommodate and respond to these differences until such difference makes no difference at all.

RECOMMENDATION

Based on the findings of the study, it is strongly suggested that the content-area teachers who may use DI should ensure to differentiate its three core elements namely *content*, *process* and *product*. If the aim of the teachers is to enrich and improve the students' reading comprehension with respect to sufficient time and planning paces, the teachers and curriculum makers in reading may consider adding longer span of time in the reading activities and performance of students to carry out their plans, discussion and varied activities. Furthermore, the reading teacher should address students' weaknesses during one on one instruction, small group instruction, and through computer programs using DI to assist students in moving toward reading proficiency. Lastly, teachers should be able to recognize diversity in their students if she wished to use DI in reading, particularly in terms of how and what the students identify with and how they learn. If this recognition is reflected in how teachers teach, students have no restrictions to discover new and creative ways to solve problems, achieve success, and become lifelong learners; thus, learning becomes both enjoyable and meaningful.

REFERENCES

- [1] Velasco, M., Cude, J. et al, (2009) Reading Comprehension Research: A Selected Review. Retrieved from <https://goo.gl/kjMtm8>
- [2] Chall, R., McCutchen,S. et al. (2014). Comparison of three approaches to supplementary reading instruction for low-achieving second-grade readers. *Language, Speech, & Hearing Services in Schools*, 34(2), 101.
- [3] National Assessment of Educational Progress Handbook (2014),2(14). Retrieved from <http://www.naep.net/pdf/v02i14/tqih>
- [4] Philippine Informal Reading Test Handbook, Guide for Teachers (2012). Retrieved from <http://www.philiri.edu.gov/pdf/cnf/hdlk>
- [5] Magistrado,R. (2015). A Proposed Intervention Program on the reading comprehension skills of the college freshmen students of Bicol University. Unpublished Master Thesis. Bicol University, Legaspi City.
- [6] Briones, G. (2014). The Pupils Reading Level in relation to the performance of grade one teachers in Libmanan North District. Unpublished Master Thesis. University of Northeastern Philippines: Iriga City.
- [7] San Agustin, A (2015). Improving the Reading Abilities of Grade-7 learners through Remedial Instruction. Retrieved from www.deped.camsur.gov.edu.com/actionresearch/pdf
- [8] Tomlinson,C.A. (2001) *The Differentiated Classroom: Responding to the Needs of All Learners*. Alexandria, Virginia: ASCD.
- [9] Humes, C. (2007). Different Strokes for Little Folks: Carol Ann Tomlinson on “DifferentiatedInstruction.” *Education World*. Retrieved January 24, 2008 from http://www.educationalworld.com/a_issues/chat/chat107.shtml.
- [10] Jefferson,M., Kami'Enui , E.J., Carnine, D.W. (2016) *Differentiated Instruction to Accommodate Diverse Learners, Strategies for reading Comprehension journal* p. 80-82.
- [11] Harem, M. *The 7 Building Blocks of Differentiated Instruction*. Retrieved January 25, 2010 from <http://www.sde.com/Conferences/DifferentiatedInstruction/downloads/DI/7BuildingBlocksOfDI.pdf>
- [12] Clay, V., Abbott, R., Verneulen, K., & Fulton, C. (2013, July 1). Paths to reading comprehension in at-risk second-grade readers, *Journal of Language Disabilities*, 39 (4), 334-351. Retrieved November 25, 2014
- [13] Alvarez, J. et.al., (2015). Effects of Tier I Differentiation and Reading Intervention on Reading Fluency, Comprehension, and High Stakes Measures. Retrieved February 24, 2016 from, <http://web.b.ebscohost.com/ehost/detail/detail?vid=15&id=8b6167bc-b4be-48e5>

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