Yirgalem G. M., Italo B. J.

STUDY THE EFFECTS OF DIFFERENTIATED INSTRUCTION ON ENGLISH GRAMMAR TEACHING IN ETHIOPIA

Abstract: the purpose of the current study was to explore the effects of differentiated instruction, a neglected instructional practice in the Ethiopia in the EFL class in the contemporary diverse classroom situations. To achieve this purpose, the study adopted the quasi-experimental study design and randomly selected two intact classes consisting of 84 grade 12 students (CG:43, EG:41) and pre-tested to prove the comparability of the students’ grammar learning achievement. Relevant quantitative data were gathered using an English grammar learning achievement test. The intervention lasted for 12 consecutive weeks from October 2022 through early January 2022. The experimental group was taught using flexible grouping, tiered instructions, scaffolding techniques, and anchored activities as differentiated instructional strategies while the control group was taught English grammar following the one-size-fits-all conventional approach that hardly addresses or neglects students’ diverse learning needs. This group was taught a similar language focus using only textbook-provided activities. The quantitative data were analyzed using SPSS, version 24 software. Confirming the normality of the quantitative data, the independent t-test and dependent t-test were used in analyzing the pre-test and post-test data, but the qualitative data were analyzed descriptively. The findings of the study indicated that the overall mean gains for the experimental group significantly differed from the corresponding comparison group’s post-test test mean gains. The within-group comparison also showed that the post-test results of the experimental group were significantly different from the pretest results. The calculated effect size for the dependent t-test and independent t-tests were found to be moderate and large. The effect size for the treatment group exposed to differentiated instructions revealed meaningful improvement in the students’ English grammar learning. In light of the main results, the study concluded that DI significantly improved students’ English grammar learning achievement. Accordingly, the study
suggested that differentiated instruction should be integrated into the regular EFL class to promote students’ learning.

**Keywords**: Key terms: differentiated instruction, differentiated instruction, instructional strategies, one-size-fits-all approach, English grammar, English grammar learning achievement.

Йиргалем Г. М., Итало Б. Дж.

**ИЗУЧЕНИЕ ВЛИЯНИЯ ДИФФЕРЕНЦИРОВАННОЙ УЧЕБНОЙ ПРАКТИКИ НА ПРЕПОДАВАНИЕ ГРАММАТИКИ АНГЛИЙСКОГО ЯЗЫКА В ЭФИОПИИ**

**Аннотация**: цель настоящего исследования состояла в том, чтобы изучить влияние дифференцированного обучения, пренебрегаемой учебной практики в Эфиопии в классе EFL в современных разнообразных ситуациях в классе. Для достижения этой цели в исследовании был принят квазиэкспериментальный дизайн и случайным образом были выбраны два интактных класса, состоящие из 84 учеников 12-го класса (КИ: 43, ЭГ: 41) и предварительно протестированные, чтобы доказать сопоставимость достижений учащихся в изучении грамматики. Соответствующие количественные данные были собраны с помощью теста успеваемости в изучении английской грамматики. Исследование длилось 12 недель подряд с октября 2022 г. по начало января 2023 г. Экспериментальную группу обучали с использованием методики гибких групп, многоуровневого обучения, строительных лесов и якорных заданий в качестве дифференцированных учебных стратегий, в то время как контрольную группу обучали грамматике английского языка в соответствии с универсальным подходом, который почти не учитывает или игнорирует потребность учащихся в разнообразном обучении. Эту группу обучали аналогичной языковой направленности, используя только задания, предусмотренные учебником. Количественные данные были проанализированы с использованием программного обеспечения SPSS, версия 24. Подтверждая нормальность количественных данных, независимый t-критерий и зависимый t-критерий использовали при анализе данных до и после
тестирования, но качественные данные анализировались описательно. Результаты исследования показали, что общий средний прирост экспериментальной группы значительно отличался от среднего прироста посттестового теста соответствующей группы сравнения. Внутригрупповое сравнение также показало, что результаты посттеста экспериментальной группы значительно отличались от результатов дотеста. Расчетная величина эффекта для зависимого t-критерия и независимых t-тестов оказалась умеренной и большой. Величина эффекта для лечебной группы, обучавшейся по дифференцированной технике, показала значимое улучшение в изучении английской грамматики учащихся. В свете основных результатов исследование пришло к выводу, что DI значительно улучшила успеваемость учащихся по грамматике английского языка. Соответственно, исследование показало, что дифференцированное обучение должно быть интегрировано в обычный класс EFL, чтобы улучшить уровень обучения учащихся.

Ключевые слова: дифференцированное обучение, дифференцированное обучение, стратегии обучения, универсальный подход, грамматика английского языка, достижения в обучении грамматике английского языка.

Introduction

The English language plays essentially significant roles in the Ethiopian education system, particularly at high schools and higher education institutions; however, the quality of English education has been seriously criticized for its failure in enabling students to have adequate command over the English language. In line with this, several local studies showed students’ low command over the English language (Amlaku, 2010; Haregewain, 2008; Tamene, 2000; Tekeste, 2006) and several students’ join higher education institutions with low command over the English language that has affected the teaching and learning process to the extent that they hardly follow their studies in English (Amlaku, 2010; Girma, 2003) as students’ deficiency in the language of instruction, both the knowledge and skills, leads to poor academic performance in the various subjects taught in that language of instruction (Abiot, 2006; Feast, 2002;
Maleki & Zangani, 2007) and learners’ skill in using the language highly determines their academic performance (Atkins et.al, 1995). This situation still remained resolved and needs further investigations.

The students’ low command over the English language partially reflects the quality of English education that has remained deficient in achieving the desired results which is enabling students to use the language effectively and accurately for a variety of functional purposes (Davies and Pearse, 2000) as the situation demands. This is because the mode of teaching plays its substantial role for the success or failure of students’ learning outcomes because pedagogy or the teaching and learning process is central in raising/lowering the quality and/or equity of learning outcomes or achievements (David, 2003; Elmore, 1996; Felder and Brent, 1999). Besides, it is not possible to improve the learning outcomes without improving the instructional practices of school teachers (McKinsey & Company, 2007) whereby quality of instruction refers to the extent it engages and challenges every student in their learning process regardless of their readiness differences among students in the contemporary diversified classroom (Chen, 1996). This requires to use the means or instructional practice that benefits all.

The practice of appropriately engaging and/or challenging all students sufficiently is employing differentiated instruction through which a teacher proactively modify key curricular elements (contents, process, and products, the learning environment), teaching methods or strategies, resources, learning activities with the primary purpose of maximizing the learning opportunity of students with diverse readiness levels (Tomlinson, et al, 2003). It also acknowledges diversity and meets students diverse learning needs of all students’ in a single classroom (Valiandes, koutselini & kyriakides, 2011) and differentiated instruction is assumed to close achievement gap prevalent among students; challenge all learners appropriately; enable to achieve all better and change attitude of students (Koez, 2007). This mode of teaching engages students in learning, considers students readiness to learn, and uses their interests and learning profiles to enhance their learning via varied instructional strategies and it is a reality in some foreign language classes (Blaz, 2006). Besides, studies revealed that it is important that
the level of instruction is adapted or adjusted to the students for learning to take place and it is ;hence, vital that teachers practice an instruction that is differentiated (Lightbown & Spada, 2013) while (Perera, 2010, p.27) claims that teachers should adapt instruction and materials, to suit to the various levels of students’ different language or linguistic competence of students, providing different learning opportunities. Put differently, differentiated instruction benefits all students in meeting their learning needs and accommodates their different ability levels (De Jesus, 2012) revealing that instructions should be adequately diversified to promote learning for all.

This mode of teaching has been recognized as a way to solve the problems of low achievement and proficiency in the ESL/EFL classroom (Fairbain & Jones-Vo 2010; Tomlinson & Imbeau 2010) and facilitates language learning as it helps to meet the needs of learners at a different proficiency level (Logan, 2011) and cater for the educational needs of the students (Heacox, 2012; Tomlinson et al, 2003). Furthermore, English teachers differentiating instructions can support their students reach the communicative competence and language skills that a foreign language demand (Borja et al, 2015) showing the contributions of differentiated instructions for improving students English learning.

In fact, certain studies have been conducted on differentiated instructions in teaching English (Ahmed, 2013; Alavinia & Farhady, 2012; Alhashmi & Elyas, 2018; Bantis, 2008; Borja et al, 2015; Bertsons, 2005; El Shareef, 2010; Firwana, 2017; Driskill, 2010; Moreno, 2015; Hassina, 2014; Chen, 2007; Chien, 2014; Chien, 2015; El Shareef, 2010; Said, 2019; Valiandes, 2015; Valiande & Koutselini, 2009; Walpole McKenna, 2007) and highlighted positive results for its potential benefits to reach the needs of diverse learners and to improve student achievement (Castle et al, 2005; Hawkins, 2007; Hoffman, 2003; Valencia & Riddle Buly, 2004). Despite their promising results, the studies were somewhere else and the findings may not be applicable to the local EFL classes as teaching and learning are situated in contexts (Bruner, 1990) signifying the need for more studies «in different social contexts, under different language learning conditions, at different age levels and at different proficiency levels (Stern, 1983, p. 412).
Thus, to the researchers’ best knowledge, the EFL teachers differentiated instructional practices haven’t been sufficiently explored in Ethiopia at high school level in particular. Thus, the current study was intended to assesses EFL teachers reported differentiated instructional practices that emphasizes on learners’ centrality in general and diversity in students’ readiness levels, strengths and areas of weaknesses and pace of learning. Parallel to this purpose, the study was aimed at answering the following research questions.

1. Is there a statistically significantly change in the overall post-test results of the experimental group as compared to comparison in learning English grammar in an EFL class?

2. Is there a statistically significantly change in the overall post-test results of the experimental group in learning English grammar in an EFL class?

In an attempt to answer the first five research questions, the following alternative and null hypotheses were formulated.

Alternative Hypotheses

In an attempt to answer the first five research questions, the following alternative and null hypotheses were formulated.

1. There is a statistically significant overall post-test mean score difference between the experimental and comparison group in English grammar learning achievement.

2. There is a statistically significant overall post-test mean gains for the experimental group on grammar learning achievement.

Null Hypotheses

1. There is no statistically significant overall post-test difference between the EG and CG on their grammar learning achievement test results.

2. There are no statistically significant mean gains in the post-test scores of the EG on English grammar learning achievement.

In answering these research questions, the results may serve as a starting point for further comprehensive observational studies. The results may probably provide relevant information regarding EFL teachers’ instructional practices and conduct
interventional studies that tests the impacts of differentiated instructions in their attempts to promote learning for all students in the context of teaching English.

**Methodology**

1. Research Design

The current study adopted the quasi-experimental design that involves pre-test-post-test, none-equivalent control, and treatment groups. These pre-test and post-tests are widely used, primarily to compare groups and/or measure change(s) resulting from experimental treatment (Dimiter, 2003). Besides, the quasi-experimental studies are conducted in a natural setting, in the classroom (Cohn, 2007) which is considered most suitable plans for examining the «effects of a particular instructional method» (Mackey & Gas, 2005, p. 143), in this case, differentiated instruction.

In this quasi-experimental study, the pre-test data serves two important purposes. It is used to prove the comparability of the students assigned to the comparison and experimental group regarding their English grammar learning achievement; otherwise, any pre-existing differences related to the students learning achievement likely affect the internal validity of the study. It also helps the researcher for further comparisons in determining if the students learning progress is changed significantly for the experimental group.

2. Research Approach

As stated before, the purpose of this study was mainly aimed at investigating the effects of a differentiated instructional approach on students’ grammar learning achievement results. Achieving this purpose, predominantly required quantitative data collected through English grammar learning achievement test. Thus, the quantitative approach was used as this helps researchers to test research hypotheses using numerical data to be analyzed using descriptive and inferential statistical methods. Creswell (2003) stated that the quantitative approach is described as exploring precise relationships with numerical data under controlled conditions and this research approach is more appropriate for experimental studies with a pre-determined independent and dependent variable(s) (Creswell, 2002) that require(s) quantitative data generated from quantitative data gathering instruments. In the context of language teaching research,
«adopting a quantitative approach in researching and teaching English as a foreign language will achieve the same purpose as utilizing this approach in the broader fields of education (Watt, 2015, p. 91).

3. Study Context

This study was carried out at Keftegna 23 secondary school located in Addis Ababa, Ethiopia. The study focused on grade twelve students’ because it is the turning point for the students to join higher education institutions that necessitate them to have a reasonable command over the English language for their academic success. However, it has become common source of complaint among educators that several students, from secondary schools, are joining and/or attending higher education institutions with low overall command over the English language for which their English language grammatical competence plays its significant role as «language without grammar would be chaotic: countless words without the indispensable guidelines for how they can be ordered and modified (Batson, 1994, p. 35) that serves as the means to an end in facilitating effective communication for various functional purposes.

Thus, the researcher believes that making possible interventions under such condition(s) can have its own contribution(s) to improve the quality of EFL teaching in general and grammar teaching in particular by suggesting practical solutions to prepare the students for their next demanding academic endeavor.

4. Sampling Techniques

The researcher had the opportunity to visit the school, observe classes and prioritize problems related to EFL teaching. In the meantime, this school visit helped him to be familiar with EFL teachers and share opinions about the teaching and learning process. This is believed to facilitate the research process because of free cooperation among the researcher and the participants, in the sense that individuals may willingly, and/or openly collaborate with the researcher, for the successful accomplishment of the study.

Besides, the school was selected using purposive sampling technique through which ‘«particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be obtained as well from other
choices” (Maxwell, 1997, p. 87). The technique is used in the current study due to the need for collaboration between researcher and school personnel, individuals involved in this quasi-experimental research (Fraenkel, Wallen, and Hyun, 2012) as the success of the study largely depends on all the possible efforts and artistry works of the participant teacher and the teacher’s willingness is very important (Welch, 2011).

In selecting the student participants, two intact classes were randomly chosen because the experimental and/or quasi-experimental design can be used with intact groups or pre-existing groups (Hoyle, 1999) and the quasi-experimental research may require groups of experimental units to be randomly assigned to a treatment collectively if they are pre-organized into logistically viable groups (Shadish, et al, 2002). The selected intact classes were pre-tested to check the comparability of their grammar learning achievement scores that helps to minimize the pre-existing differences between the treatment and comparison groups, and assigned to the experimental and control groups through a random sampling technique by tossing a coin (Ary, Jacobs, & Sorensen, 2010) to avoid selections biases that may threaten the internal validity of the study after the intervention; otherwise, the factor related to differential selection could occur in the absence of randomly selecting the samples to be assigned either into the experimental or control groups.

5. Data Gathering Instrument

The purpose of this study was to investigate the effects of differentiated instruction on high school students’ English grammar learning achievement that requires quantitative data collected using achievement test. The study used achievement tests because achievement tests are helpful to find «whether progress has been made in terms of the goals of learning» (McNamara, 2000, p. 6). As Brown states, «an achievement test is related directly to classroom lessons, units, or even a total curriculum» (2004, p. 47). Accordingly, the contents and the objectives of the grammar learning achievement test used in this study were directly related to grammar lessons taught in the first semester in the students’ textbook, but the activities and instructional strategies were different for the interventional group.
In preparing the grammar learning achievement test, the researcher used his teaching experiences as a teacher of English, consulted different published books considering the learning objectives. The test was initially given to two experienced EFL teachers and advisor for possible comments and/or suggestions. After incorporating all comments, the test was piloted students in the same grade level. Using the pilot results, the test items were improved by removing, rewording, substituting, re-arranging and modifying problematic items.

Results and Discussions

Table 1

<table>
<thead>
<tr>
<th>Paired Group Statistics</th>
</tr>
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<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Pre-test result</strong></td>
</tr>
<tr>
<td><strong>Group</strong></td>
</tr>
<tr>
<td><strong>N</strong></td>
</tr>
<tr>
<td><strong>Mean</strong></td>
</tr>
<tr>
<td><strong>Std. Deviation</strong></td>
</tr>
<tr>
<td>EG</td>
</tr>
<tr>
<td>41</td>
</tr>
<tr>
<td>42.7073</td>
</tr>
<tr>
<td>11.94831</td>
</tr>
<tr>
<td>CG</td>
</tr>
<tr>
<td>43</td>
</tr>
<tr>
<td>43.2558</td>
</tr>
<tr>
<td>9.68575</td>
</tr>
</tbody>
</table>

The data given in Table 9, shows the main study samples group test statistics. The groups’ test statistics for the comparability of the pre-test results were found to be: CG mean = 43.2558, SD = 9.68575; for the control group and EG mean = 42.7073; SD = 11.94831; for the experimental group. This data showed the group statistics: mean difference, standard deviation, and standard errors for the experimental and control groups. The mean of the control and experimental groups were 43.2558 and 42.7073 respectively.

It can be seen from the data the mean scores of the experimental and comparison groups were slightly different, as the descriptive statistic shows. This data was further analyzed using an independent samples t-test to identify whether this difference was statistically significant and or not. In doing this the calculated p-value is compared with the threshold value, p = 0.05. The p-value obtained from the t-test result determines the significance of the calculated mean difference.

Table 2

Levene’s Test for Equality of Variances of Pre-test Scores (EG & CG)

<table>
<thead>
<tr>
<th>Mean SD</th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test result</td>
<td>EG 42.7073 11.94831</td>
<td>3.052</td>
<td>0.84</td>
<td>-0.232</td>
<td>82</td>
</tr>
</tbody>
</table>
The data presented in 2 shows that the statistical analysis of independent sample t-test for equality of means result for the pre-test scores, and the inferential statistical values for equality of means (t = -0.232; DF = 82; p = 0.817) depicted that no statistically significant mean score difference was observed between the groups. Thus, the baseline data confirmed that the groups were comparable before intervention and the p-value, 0.817 indicated that the assumption of equality of variances was also met.

1. Results on the Effects of differentiated instruction on students Learning

Table 3

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>EG = 64.8293 13.27197</td>
<td>2.838</td>
<td>0.096</td>
</tr>
<tr>
<td>CG = 59.2791 10.94646</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p = 0.04 < 0.05

In response to the first research question, an independent sample t-test was conducted and the data was presented in Table 3. The post-test data showed the experimental and the comparison groups descriptive statistics mean and standard deviations (mean = 64.8293, SD = 13.27197 and mean = 59.2791, SD = 10.94646) for the experimental and comparison group respectively. The inferential statistical values were (t = 2.085, df: 82, p = 0.04) where the p-value, p < 0.04 was much smaller than p = 0.05. This reveals that the experimental group mean gains significantly differed from the corresponding comparison group. Thus, the alternative hypothesis was accepted whereas the null hypothesis was rejected.

In addition to the effects of differentiated instructions on experimental group as compared to the corresponding comparison group, effect size calculated using eta squared formula: \( \frac{t^2}{t^2 + (N_2 + N_1 - 2)} \)

\[= \frac{2.0852}{2.0852 (41 + 43 - 2)} = \frac{4.347225}{4.347225 (41 + 43 - 2)} = 0.05 \text{(moderate effect size)} \]

Concerning the effect size, Sauro argues that it is a scientific or systematic way of determining how big the pretest and posttest difference is in an
experimental study (2014). In this study, the effect size for the independent and dependent t-tests was found to have reasonable and high overall impact (0.05; 0.96) and shows the post-test and pretest and posttest differences were not trivial. In other words, the large effect size indicated that differentiated instruction had positive effects on the participant students’ English grammar learning.

Table 4: Paired Sample t-test Result for Pre-test and Post-test (EG)

<table>
<thead>
<tr>
<th>Paired differences</th>
<th>Mean</th>
<th>SD</th>
<th>Std differences</th>
<th>Std</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test 42.7073 11.94831</td>
<td>42.7073</td>
<td>11.94831</td>
<td>-22.12195</td>
<td>4.34278</td>
<td>-32.617</td>
<td>40</td>
<td>0.00</td>
</tr>
<tr>
<td>Posttest 64.8293 13.2719</td>
<td>64.8293</td>
<td>13.2719</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p = 0.00<0.05

The data presented in table 12 shows the output generated from the paired sample t-test in response to research question number 2 designed to find out whether the post test result significantly differs from the pretest data for the students under the condition of differentiated instructions or not. Accordingly, the pretest group statistics, mean = 42.7073; SD = 11.94831 and posttest group statistics, mean = 64.8293 & SD = 13.2719 and the inferential statistical values (-32.617, df = 40, p = 0.000 < 0.05). The calculated p-value, 0.000, revealed the post test result significantly differed from the pretest result for the experimental group where p=0.00<0.05 implies that differentiated instructional approach significantly changed treatment group’s English grammar learning achievement.

In other words, H1 was supported as the result, p = 0.00 is in favor of the EG since P = 0.00 < 0.05. Thus, the findings showed that the experimental group constituting 41 students’ posttest result significantly differed from their pretest results due to the treatment. Hence, the alternative hypothesis was accepted.

In other words, the data generated from the paired r-test sufficiently evidenced that integrating differentiated instructional approach significantly improved students’ grammar learning achievement. This was obtained by comparing the students’ grammar learning achievement pretest and posttest result results of the intervention group. The pretest and posttest results were 42.7073 & 64.8293 with p-value, 0.00, from which one can infer that the EG posttest result was significantly higher than the pretest result.
The effect size for this research question, paired sample t-test, was calculated as:
\[ t_{\text{test}} = \frac{t_2}{t_2 + (N - 1)} = \frac{(-32.617)^2}{(-32.617)^2 + (41 - 1)} = \frac{1063.868689}{1063.868689 + 40} = \frac{1063.868689}{1103.868689} = 0.96 \text{ (large effect size)}\], suggesting that the differentiated instructions supported the EG improve their English grammar learning achievement.

2. Discussions of the Results: effects of differentiated instruction

In the context of this study, differentiated instruction as been hardly practiced in the EFL classes where the conventional one-size-fits-all instruction is still predominantly used in Ethiopia. The rationale for conducting this experimental study lies behind lack of empirical evidence on the effectiveness of DI in the local EFL class where EFL teachers hardly differentiate instruction in general and in teaching English grammar in particular. Thus, the current study was aimed at investigating the overall effects of differentiated instruction in teaching English grammar learning on high school students as compared to using the one-size-fits-all instruction where teachers mainly teach to the middle aiming down to the average students using textbook provided activities and/or tasks.

To achieve this purpose, relevant quantitative data were collected using English grammar learning achievement test designed in the form of dialogue, cloze-test and multiple-choice items that tested students’ recognition and applications of different grammatical elements. The data were analyzed using descriptive and inferential statistical methods, dependent t-test and independent t-test that generated quantitative results.

To this effect, the statistical analysis of the overall results showed that the experimental group had a statistically significant overall mean gains in the English grammar learning achievement over that of the corresponding comparison group deprived of the intervention. In other words, results of the current study revealed that differentiated instructional approach significantly changed the experimental group’s overall English grammar learning achievement as measured by the post-test results as compared to the comparison group that experienced the conventional one-size-fits-all instruction.
The findings of the current study were in line with the literature that students taught under the conditions of differentiated instructions improve their academic achievement much better than those who experienced the conventional approach in the contemporary regular classrooms (Tomlinson, 1999; Heacox, 2002) for which the tasks and/or activities are designed at a single difficulty level for all students regardless of the different readiness levels that likely influences students’ learning outcomes (Tomlinson 2014). In contrast to this, in using differentiated instruction tasks/activities are designed in such a way that appropriately challenges students with different readiness levels, strengths, learning needs, weakness, pace of learning, interests and learning profiles that may likely influence students learning. The results were also supportive of the literature that claims differentiated instruction is considered as the key solution to the demand of responding to the challenges of addressing the diverse academic needs of students (Tomlinson, 2014) and improves students’ learning achievement, by minimizing gaps, within a short period time (Stavroula et al, 2011) alleviating the pitfalls of the one-size-fits-all instructional approach that hardly works in the real classroom (McBride, 2004).

The results further showed that differentiated instructions significantly improved the experimental group’s posttest results with high effect size. The results were consistent with certain studies that demonstrated promising outcomes resulting from differentiated instructional practices in different ESL/EFL contexts (Alavinia & Farhady, 2012; Abate, 2013; Alhashmi & Elyas, 2018; Firwana, 2017; Borja et al, 2015; De Jesus, 2012; Driskill, 2010; Hassina, 2014; Chen, 2007; Chien, 2014; Chien, 2015; Kotob & Abadi (2019; El Shareef, 2010; Said, 2019; Valiandes, 2015; Walpole McKenna, 2007) as compared to the undifferentiated instructions despite little empirical evidences in the Ethiopian EFL class.

In a study that investigated the effects of differentiated instructions on students’ vocabulary learning in an Iranian EFL context, it was empirically evidenced that differentiated instructional practices significantly improved students’ vocabulary learning achievements as compared to the comparison group that received the conventional one-size-fits-all instructional approach (Alavinia & Farhady, 2012). In this study, both the
control and experimental groups were pre-tested and post-tested, but the experimental groups students were exposed to differentiated instructions based on their multiple intelligence and learning styles which makes it look individualized instruction because students’ seem to be divided in to fixed groups based on their learning style and/or multiple intelligence, this leads to absence of flexibility in grouping blocks diversified mode of interactions among students with different readiness levels. Besides, grouping students based on their intelligence differences and learning styles may be demanding in terms of resources.

In another study, Said (2019) investigated the effects of differentiated instructions on sixteen years old students’ language attitude and critical thinking in the Malaysian ESL context and the results empirically evidenced that implementing differentiated instruction significantly changed students’ attitude and critical thinking skills with large effect size and average effect size (0.89, 0.58) on the students’ attitude and critical thinking skills respectively. The study also found that the participants favorable perceptions or views on the effects of differentiated instruction son students learning English as a second language. The study selected students learning style as an important learner-related factor that likely influence their learning and it was conducted in an ESL, not EFL, context. (2007).

In 2007, Chen examined the assessment aspect of differentiated instruction on the college EFL learners’ perspectives on tiered performance assessment tasks using observation, interviews, videotaping and artifact collections as data gathering instruments. The results showed that differentiated instructions was found to be promising in supporting EFL College students’ English language learning in Taiwan. The results further revealed that the participants perceived differentiated instruction, tiered performance tasks, positively in that learning English via differentiated increased their confidence, motivations despite the possible challenges related to task complexity level, scores, and time required to complete the tasks. This study indicated the relevance of tiered performance tasks in teaching English.

El Shareef (2010), also conducted a quasi-experimental study that lasted for a month. The study employed a pretest and posttest design that involved 53 students
(CG: 25; EG:28) students taught similar lessons but via differentiated and undifferentiated instruction, conventional mode of teaching English. The post test results of this study indicated that students taught English via differentiated instructional strategies resulted promising outcomes over the conventional approach; however, the duration of the study may probably affect the internal validity of the results of the interventions due to testing effects. In the same vein, Paredes (2017) examined the effects of differentiated instruction on students’ learning of vocabulary, grammar and reading using differentiated strategies. Using pretest and posttest and standardized tests to assess students’ progress, and the results showed that students’ performance has significantly improved after receiving the treatment. In this study, the duration of the intervention part was not declared though, as its strength, the researcher used standardized tests to assess students’ performance.

The results of the study conducted on the literacy development also reported that differentiated instruction was superior to the conventional approach. The findings of the study reported that differentiated instruction was found to be effective in producing better academic growth for the students exposed to the differentiated instructional practices (Walpole McKenna, 2007). The study by Bertsos (2005) also showed DI benefited students with different ability levels; it indicated differentiating home works [tiered tasks] appropriately engaged the struggling students in their learning and enriched advanced ones.

Regarding the effects of differentiated instructions on students’ English grammar learning achievement, fewer studies highlighted its effectiveness in different contexts (Alhashmi & Elyas, 2018; Firwana, 2017) In the study that investigated the effects of differentiated instructions on female university students’ grammar performance (Alhashmi & Elyas, 2018), results showed that implementing a differentiated instructional approach significantly improved the English grammar learning performance as measured by the pre-test and post-test results of the experimental group, but it did not significantly improve the experimental group’s grammar performance as compared to the control groups. The female participants exposed to this innovative instructional approach also positively perceived learning English grammar through a differentiated
instructional approach. The participants of this study were female students which makes it different from the current study and the results though the researcher used pre-test and post-test quasi-experimental studies in an EFL context.

Similarly, Firwana (2017) further explored the effectiveness of differentiated instruction on second graders English grammar and vocabulary learning in Gaza. This study empirically evidenced that using differentiated instructional strategies significantly improved the grammar and vocabulary learning of the students. The study used the pre-test and post-test grammar and vocabulary learning achievement scores. The results were in line with the current study as it confirmed the positive effects of differentiating instructions for teaching English grammar and vocabulary. However, the five-week intervention time appears to affect the internal validity of the study because students may easily remember the test items within this short period of time, and testing threatens its internal validity and the findings could be open for alternative explanations, not attributed to the application of differentiation.

In the local EFL context, Abate (2013) conducted an experimental study on the effects of differentiated instructional practices on grade eight English vocabulary learning achievements. The study findings showed that differentiated instruction significantly improved the experimental group’s overall mean gains as compared to the comparison group experiencing the one-size-fits-all instruction. The results further sowed that differentiating instructions significantly improved the overall posttest results in general and the average and low achievers in particular. Moreover, results showed that differentiated instruction significantly changed the students’ attitude towards learning English vocabulary. Despite its remarkable results with the current study in the local EFL class, this study was conducted in teaching English vocabulary on junior students preparing themselves to join high school whereas the current study was conducted in teaching English grammar on high school students preparing them themselves to join university where students overall command over the English language affects their academic success as a medium of instruction.

In the current study, the significant change could be because of the different learning opportunities that differentiated instruction provides to the students at different
levels of readiness that likely affects their learning (Tomlinson, 2014). In support of this, differentiated instruction aims to improve classroom learning for all students by employing a variety of classroom practices, learning opportunities, that accommodate student differences (Benjamin, 2002). The other reason for the results could be differentiated instruction provides not only options of tasks or activities at different levels of difficulty that better matched to the different students’ skill levels and abilities (Blumenfeld, 1992; Schuman et al, 1985) but also more encouragement and time, individual learning outcomes, instructional support, and in-depth exploration (Heacox, 2012), tiered activities or assignments, more scaffolding, cooperative learning, varying the pace of learning, anchored activities, options of flexible grouping (Tomlinson, 2006).

These learning opportunities may make differentiated instruction superior for the overall mean achievement gains over that of the corresponding conventional approach for which the same task at the same level of difficulty is designed for all students and this may not appropriately challenge and actively engage students to work with in their zone of proximal development where actual learning takes place; otherwise, the task is either below or above this zone and fails to actively engages students in their learning process. Regarding this, Vygotsky suggests the tasks given to the learners must be within the zone of proximal development (1978) which refers to the distance or gap between what the student can do by himself and what s/he can do with the help of the knowledgeable others (peers, teacher or any capable person) and linked to the students’ readiness levels.

Koez also asserts that «a classroom where one (same) lesson is designed for all level-learners, limits are placed on students” and students ” who are advanced academically are left behind because they are under challenged, and students who may be struggling are left frustrated and confused (2007, p.3) as the tasks designed at single difficulty remains poorly matched to the different skill levels or abilities of the diverse groups of students. Furthermore, Wrigley and Guth state if the lessons delivered meets only the needs of learners whose skills and/or knowledge falls in the middle [teachers teaching to the middle], those learners with lower skills may become frustrated, and those with advanced skills, in relative terms, may become bored (1992, p.162).
Furthermore, the conventional approach has been criticized by authors and/or researchers for its drawback in disregarding students with different readiness levels (Tomlinson, 1999, 2001, 2014; Hall, 2002), neglecting the wide range of student-related characteristics and differences in students’ needs (Fox & Hoffman, 2011) and failure to challenge appropriately the majority of the low achievers and some high achievers (Subban, 2006; Koez, 2007) who may feel under frustrated and under challenged respectively. Besides, following this mode of teaching no longer support learning in a meta-modern mixed ability classroom (Tomlinson, 2001). Thus, in the contemporary classroom situations, the idea of one-size-fits-all is no longer acceptable (Tomlinson, 2014) for the proven argument that individuals learn differently (Green, 1999; Fischer & Rose, 2001), suggesting the need for alternative way of lesson delivery that accommodates the wide range of student related characteristics influencing learning (Tomlinson, 2001, 2014) while improving learning for all students, the ultimate goal of all instructions.

Conclusion

Outweighing its added costs, differentiated instruction has been acknowledged as an effective instructional approach for its potential benefits in facilitating learning for all students including, EFL/ESL class; however, differentiated instruction has been hardly implemented in Ethiopia in general and it is not a prominent instructional practice in the local EFL classes in particular for the predominant use of the one-size-fits-all instruction that no longer serves the needs of diverse of students in the contemporary classroom situation and might have adversely affected the EFL instructions in the local EFL context.

Consequently, the effectiveness of this instructional practices hasn’t been empirically evidenced and widely known in teaching English grammar in particular at high school level in the Ethiopian EFL context and elsewhere and the study adds to the store of the existing knowledge by filing this knowledge gap and makes some contributions to alleviating the pitfalls of the one-size-fits-all instruction that hardly works in the contemporary classroom situations.
Accordingly, this interventional study was intended to explore the effects of differentiated instructional approach on grade 12 students’ English grammar learning achievement using pretest ad posttest non-equivalent comparison group quasi-experimental study design. The study specifically focused the effects of differentiated instruction in the context of teaching English grammar which is one of the potential problems our students are blamed for almost at all educational levels.

To achieve its purpose, the relevant quantitative data were collected using grammar learning achievement test and analyzed using SPSS software version 24 and making use of descriptive and inferential statistics. The independent and dependent t-test statistical analysis results showed the experimental group exposed to the conditions of differentiated instructions significantly outperformed the comparison group taught English grammar using the conventional one-size-fits-all instruction using textbook provided lessons and activities in their English grammar learning achievement scores. The analysis of the dependent sample t-test results also indicated that the posttest results of the experimental group significantly differed from the pretest results with high effect size.

Thus, it is fair to conclude that incorporating differentiated instructional practices is highly effective and/or valuable instructional practice in improving high school students’ English grammar learning achievements in the Ethiopian EFL class as confirmed by the quantitative findings for the within and between group(s) comparisons. Based on this conclusion, the study suggested that differentiated instruction should be properly integrated in to the regular EFL classes and to use differentiated instruction effectively, the EFL teachers should be provided in-service and preservice trainings, as pre-requisites for practices, on differentiated instruction while renewing the conventional instructional practices. Besides, further studies should be conducted in teaching English language skills in similar and different participants in the local EFL contexts where the one-size-fits-all mode of instruction seems to be the norm almost at all educational levels at government schools.


19. Greek Learners performance on receptive skills. – Masters Dissertation, Aristotle University of Thessaloniki, Greek.


References


18. Greek Learners performance on receptive skills. Masters Dissertation, Aristotle University of Thessaloniki, Greek.


64. Tomlinson, C. A. (2014). The differentiated classroom. Responding to the needs of all learners (2nd ed.). Alexandria: ASCD.


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