THE EFFECTIVENESS OF DIFFERENTIATED INSTRUCTIONAL APPROACH ON EFL STUDENTS ENGLISH GRAMMAR LEARNING ACHIEVEMENT IN ETHIOPIA

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Abstract
Differentiated instruction hasn’t been commonly practiced in Ethiopian English as a foreign class and its effectiveness on struggling, grade level and advanced students hasn’t been empirically evidenced on high school students English grammar learning achievement. Consequently, this study investigated effectiveness of differentiated instruction on the struggling, grade level, and advanced students’ English grammar learning achievement. The study adopted the quasi-experimental design. A total of 47 grade twelve students were randomly selected and pretested to confirm comparability by using English grammar learning achievement test. The experimental group was exposed to differentiated instruction for ten weeks while the comparison group experienced the one-size-fits-all approach. The t-test inferential statistical data analysis results showed the struggling, grade level and advanced students significantly outperformed, but no significant change was noticed for male and female students. The study concluded that differentiated instruction tremendously enhanced students’ learning achievement.

Keywords: differentiated instruction, conventional instruction, instructional effectiveness

Resumen
La instrucción diferenciada no se ha practicado comúnmente en la clase de inglés como lengua extranjera en Etiopía y su eficacia en los estudiantes avanzados, de nivel de grado y con dificultades no se ha demostrado empíricamente en los logros de aprendizaje de la gramática inglesa de los estudiantes de secundaria. En consecuencia, este estudio investigó la efectividad de la instrucción diferenciada en los logros de aprendizaje de la gramática inglesa de los estudiantes avanzados, de nivel de grado y con dificultades. El estudio adoptó el diseño cuasi-experimental. Un total de 47 estudiantes de doceavo grado fueron seleccionados al azar y evaluados previamente para confirmar la comparabilidad mediante el uso de la prueba de rendimiento de aprendizaje de gramática inglesa. El grupo experimental estuvo expuesto a instrucción diferenciada durante diez semanas, mientras que el grupo de comparación experimentó el enfoque único para todos. Los resultados del análisis de datos estadísticos inferenciales de la prueba t mostraron que los estudiantes con dificultades, de nivel de grado y avanzados superaron significativamente, pero no se notó ningún cambio significativo para los estudiantes masculinos y femeninos. El estudio concluyó que la instrucción diferenciada mejoró enormemente los logros de aprendizaje de los estudiantes.

Palabras clave: instrucción diferenciada, instrucción convencional, efectividad instruccional
Introduction

In principle, all teachers, including those teaching English as a foreign language or a second language, are required to promote learning for all their students’ while achieving and/or exceeding stated learning objectives reflected in the students’ active involvement in their learning. This requires all teachers to be well prepared to work with all students (Tomlinson et al., 2003) while promoting learning for all their students who come to class and spend their precious time to learn, irrespective of any learner related characteristics that likely influences their learning outcomes.

However, in reality, it is a common experiential knowledge among teachers to get students who work beyond stated learning objectives while others enormously struggle in their learning whereas the grade level students grasp the lessons at ease and achieve learning goals. In this context, students at the two extremes receive inadequate assistance from teachers’ or the curriculum and may show off-task classroom behaviors. This is because “If the lessons delivered meet only the needs of learners whose skills or knowledge falls in the middle, those learners with lower skills may become frustrated, and those with advanced skills, in relative terms, may become bored” (Wrigley & Guth 1992, p.162). Teaching to the other extremes is also equally problematic in providing adequate learning opportunities for all students. Regarding the problems related to teaching to the one end that hardly benefits all students, Reed (2004, p.79) has noted the following:

Teaching to the lower level of class perpetuates the problem of low achievement, along with boredom and disengagement on the part of the middle-high end learners. Teaching to the middle level causes the less prepared students to struggle and fall far behind while the better-prepared students, who remain unchallenged, lose their motivation to learn. Teaching to the high end also seems untenable, given the probable struggle and likely disengagement by less-prepared students.

Despite the problem(s) related to teaching either to the extreme ends or middle level that inevitably leaves some students unsupported, studies have demonstrated that teachers most commonly resort to teaching to the middle level or use the one-size-fits-all methods, aiming down to the middle level. This instructional practice has been criticized by authors or researchers (Blaz, 2006; Heacox, 2002; Rock et al., 2008; Subban, 2006; Tomlinson, 1999, 2014) as it creates achievement gaps among students’ (Koez, 2007; Valiandes, 2010) and no longer challenges appropriately the majority of the low achievers and some high achievers (Koez, 2007; Subban,
2006). Besides, using this mod of teaching leaves little room to accommodate students’ different readiness levels that likely affect their learning (Tomlinson, 2014). This instructional practice lacks flexibility in accommodating readiness differences and addressing learners diverse learning needs, and teachers teaching via this mode may encounter various challenges in providing adequate learning opportunities commensurate to the diverse learning needs of students with different areas of strengths and weaknesses.

In response to alleviating the pitfalls of teaching to the one end and facilitating learning for all students in the contemporary classroom situations, authors suggested differentiated instruction as a flexible alternative through which teachers can help all their students to achieve and exceed stated learning objectives (Levy, 2008; Tomlinson, 1999). This mode of instruction has been considered as the equitable instructional methods of teaching and forming instruction by students’ learning styles, readiness level, interests, needs, and language proficiency (Chien, 2012).

As differentiated instruction touches almost all aspects of instructions, it requires teachers to have a range of instructional strategies, adequate subject matter knowledge, good rapport with students, the ability to choose appropriate materials, methods, and other important resources to delivery lessons effectively. This mode of instructions also requires teachers to use time flexibly, and good knowledge and rapport with their students (Tomlinson, 1999). In addition to these, it requires, as an optimal level procedure, alternativeness, flexibility, and innovation in teaching, curriculum adherence, and knowledge presentation to students, while taking into consideration variation in knowledge, experiences, demands, potentiality, and interests (Tomlinson, 2014).

In the language classes, differentiated instructions benefit students as it meets the needs of diverse students, aid students with special needs, encourage language learning for students who have English as their second or foreign language and allow for creativity, encouraging students to learn concepts in a higher mode of thought (De Jesus, 2012) and it has been identified as a way to solve the problems of low achievement and proficiency in the English as a second or Foreign language classroom (Fairbain & Jones-Vo, 2010) and facilitates language learning as it helps to meet the needs of learners at a different proficiency level (Logan, 2011).

In contrast to its potential benefits in promoting learning for all students in several ways, this instructional practice is not widely used in the contemporary classrooms as the one-size-fits-all instruction is most commonly applied in numerous classrooms (Abate, 2013; Ginja & Chen, 2020; Melese, 2016; Melese, 2019; Silliman et al., 2000; Vaughn et al., 1998) indicating that some
students may not be likely benefiting from such sort of instructions for its inadequacy in promoting learning for all students providing different learning opportunities.

Thus, this study was intended to explore whether differentiated instruction promotes learning the struggling, grade level, and advanced students in the context of teaching English grammar. The teaching of English grammar has been selected as a grammatical deficiency is one of the serious problems in the Ethiopian EFL classes “as the English language grammar command of learners has ever been deteriorating, schools, colleges, universities and training institutions are increasingly under criticisms from the public and stakeholders” (Dereje, 2001, p.1) and our students do have serious grammar deficiency and weaker ability to use it effectively (Haregewoin, 2008) for which educational institutions are blamed for their failure in enabling students to use the language for different purposes as the situation demands. This situation has not been yet resolved and requires making use of all possible options, including interventional studies.

In line with the purpose of this study, the following research questions were designed:
1. Does a differentiated instructional approach significantly change the low achievers, average achievers, and high achievers’ English grammar learning post-test achievement scores compared to their counterparts?
2. Do the post-test scores of the students in the differentiated classroom significantly differ from the pre-test scores across gender?

Research Methodology

The purpose of the study was the to explore the effects of differentiated instructional strategies on students, English grammar learning. It is based on the quantitative research approach that adopted the quasi-experimental design that involved the pre-test-post-test, non-equivalent control, and treatment groups. The quasi-experimental study design, in general, has been preferred over experimental study as it is often more cost-effective and more feasible to conduct in educational settings (Shavelson & Towne, 2002) and they are appropriate in educational settings as they contribute to the actual classroom teaching practices of their strong external validities to similar situations.

This study involved a total of 47 high school students (Experimental group: 23, Control group: 24) from two sections at Keftegna 23 secondary schools. It was done during the first semester of the academic year 2021/22. During the study time, the students were assigned by the school and two intact groups were randomly selected and pretested for the comparability of their
LA EFICACIA DEL ENFOQUE DE INSTRUCCIÓN DIFERENCIADA EN LOS LOGROS DE APRENDIZAJE DE LA GRAMÁTICA INGLÉS DE LOS ESTUDIANTES DE INGLÉS COMO LENGUA EXTRANJERA EN ETIOPÍA
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grammar learning achievement scores and to avoid selection biases that possibly affect the internal validity of the study.

Before conducting the study, awareness training was given to an English teacher with a master’s degree in Teaching English as a Foreign Language based on his willingness to participate in the study, but not to withdraw during the study time. Then, the two intact groups were randomly selected, pretested, and the intervention lasted for ten consecutive academic weeks. The experimental group was taught English grammar via differentiated instruction as translated into classroom practices using tiered activities, flexible grouping, scaffolding techniques anchored activities while using a new teaching material designed for the experimental group, while the comparison group was taught English grammar using the one-size-fits-all conventional methods by using only the textbook-provided tasks or activities.

The same English grammar achievement test was administered to the control and experimental group. Finally, the low achievers and average achievers’ posttest scores were compared with their counterparts to find out whether differentiated instructional strategies significantly changed the intervention group’s post-test results.

In this experimental study, relevant data were collected through an English grammar achievement test designed in the form of a cloze-test, dialogues, and sentence-level multiple choices. As to the purpose of an achievement test, this form of test is helpful to find out the students learning progress in line with the instructional objectives (McNamara, 2000). In terms of the contents of achievement test, Lawrence-Brown (2004) specified that “an achievement test is related directly to classroom lessons, units, or even a total curriculum” (p.47). Accordingly, the learning objective and contents of the grammar learning achievement test were related to the lesson objectives and contents stated in the students’ textbook for both the experimental and comparison groups involved in the study.

To achieve the purpose of this study, quantitative data were collected using a grammar learning achievement test. This data was analysed using SPSS software version 25 which facilitated the data analysis process. In the analysis, descriptive and inferential statistics were used. The unpaired or independent t-test was used to analyse the pretest and posttest data. In the pre-test, the independent t-test was used to check the comparability of the two intact groups, as the baseline data. The posttest scores were used to find out whether differentiated instruction has resulted in
significant changes for the low achievers, average achievers, and high achievers compared to their counterparts in the comparison group’s post-test scores.

Results of Research and Discussions

Before the study began, the students assigned to the experimental and control groups were pretested and found to be comparable with no significant grammar learning achievement score difference. The results of the 2-tailed independent t-test data were given hereunder Table 1.

Table 1

T-test results for the pre-test grammar achievement scores experimental ang control groups

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Mean Difference</th>
<th>T</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG</td>
<td>24</td>
<td>36.25</td>
<td>0.88</td>
<td>0.216</td>
<td>45</td>
<td>0.83</td>
</tr>
<tr>
<td>EG</td>
<td>23</td>
<td>37.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p>0.05

The results obtained (see Table 1) showed the pre-test results of the independent samples t-test for equality of means. Looking at the inferential statistical values (t = 0.216, 0.217, df: 45, p=0.83) at a statistically significant level of 0.05, it can be inferred that the pretest results of the independent samples t-test proved that there was not sufficient evidence to say that the mean test results difference of the treatment group and comparison were statistically significant. This implies that the groups were equivalent with no statistically significant differences in terms of their English grammar learning achievement scores.

Table 2

T-test results related to the first research question

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Group</th>
<th>High Achievers</th>
<th>Average Achievers</th>
<th>Low Achievers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test Scores</td>
<td>CG</td>
<td>55.83</td>
<td>44.25</td>
<td>30.00</td>
</tr>
<tr>
<td></td>
<td>EG</td>
<td>63.00</td>
<td>53.00</td>
<td>38.50</td>
</tr>
<tr>
<td>Mean gains</td>
<td>P</td>
<td>7.17</td>
<td>8.75</td>
<td>8.50</td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>0.001</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>DF</td>
<td>15.016</td>
<td>13.507</td>
<td>14.993</td>
</tr>
</tbody>
</table>

* P<0.05
The two-tailed independent t-test was conducted (see Table 2) to determine whether a differentiated instructional approach significantly improves the experimental group of struggling students, grade level students, and advanced students compared to their counterparts in the comparison group taught via the one-size-conventional teaching methods. This was done by taking the achievement to mean differences in the post-test results in both modes of teaching. Consequently, the output generated from the independent t-test results showed the average mean scores of the students in the three achievements levels in the post-test as: 30; 44.25; 55.83, and 38.85; 53.00; 63.00 for the control and experimental groups respectively.

The results of the inferential statistical values were \( t=15.016, 13.507, 14.993; \) \( df=5, 7, 7, \) and \( p=0.00 \) for the three levels of achievements. The low p-value suggests that there exists sufficient evidence to reject the null hypothesis which states that there is no statistically significant achievement difference among the achievement levels in the posttest results. This result indicates that there exist statistically significant differences in terms of the students’ mean gains for the experimental groups as compared to the students assigned in the control group. This implies, despite the small sample size, that the differentiated instructional approach improves the academic achievement of students at the different achievement or readiness levels as opposed to students deprived of such interventions.

Table 3

<table>
<thead>
<tr>
<th>Test result</th>
<th>Sex</th>
<th>N</th>
<th>Mean</th>
<th>Mean difference</th>
<th>t</th>
<th>DF</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>male</td>
<td>9</td>
<td>38.222</td>
<td>1.794</td>
<td>0.297</td>
<td>21</td>
<td>0.769</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>14</td>
<td>36.428</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-test</td>
<td>male</td>
<td>9</td>
<td>53.000</td>
<td>3.643</td>
<td>0.782</td>
<td>0.44</td>
<td></td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>14</td>
<td>49.357</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p>0.05

In response to the second research question, a 2-tailed independent samples t-test for equality of means (see Table 3) was conducted to examine whether there exists a significant difference between the mean scores of the pre-test and post-test results in terms of gender in the experimental groups. Accordingly, the output of the t-test result indicates that the mean of female students ranges: from 36-49, and the mean results of male students ranged from 38-53. This shows
that the mean statistic for the male and female students was more or less similar to the pre-test result whereas the inferential statistical values \((t=0.297; \text{df}=21; p=0.769)\) for the re-test results and \((t=3.643; \text{df}=21; p=0.44)\) for the post-test results of the independent samples test for equality of variances indicated that mean of male and female students didn’t significantly differ across gender variable even if the mean of the male students were slightly different from the female students in the post-test results. Thus, there is no sufficient statistical evidence that a differentiated instructional approach significantly changes the results of the students’ grammar learning achievement scores across gender despite the slight mean difference for male students.

Teaching to the one end has been criticized for its deficits in creating a learning environment that facilitates learning for all students while catering for learner-related characteristics that likely students learning outcomes. In response to this challenge, scholars from different educational corners suggested a differentiated instructional approach as an appropriately responsive instructional practice despite the paucity of adequate empirical studies that evidenced its effectiveness in teaching English in an Ethiopian EFL class in general at different educational levels. However, as far as our knowledge or reading is concerned, there is no empirical study that evidenced the effects of differentiated instruction on the struggling students, grade level students and advanced students on high school students in the Ethiopian EFL context and somewhere else in the context of teaching English grammar.

Consequently, this study attempted to explore whether a differentiated instructional approach significantly improves support learning for all students (struggling, grade levels, and advanced learners) in the context of teaching English grammar for grade 12 students. To achieve its purpose, relevant data were collected through an English grammar achievement test for both the experimental and comparison groups and the data was analyzed quantitatively using SPSS software verso 25. Descriptive statistics and inferential statistics were also used in this study. The three achievement levels were not related, so an independent sample t-test was used as an appropriate data analysis statistical in this study.

Accordingly, results of this study indicated that differentiated instruction significantly improved the experimental group’s English grammar learning achievement scores compared to the teaching to the middle level or using “the one-size-fits-all” instruction used in the comparison group. In support of this, the output generated from the independent t-test results shows the average
mean scores of the students in the three achievements levels in the post-test were found to be (30; 44.25; 55.83, and 38.85; 53.00; 63.00) for the control and experimental groups respectively. This result underwent further statistical analysis and the results of the inferential statistical values were found to be, t=15.016, 13.507, 14.993; df=5, 7, 7, and p=0.00). The very low p-value (p=0.00) provides sufficient evidence that differentiated instructions significantly improved all students (struggling, grade level, and advanced students) English grammar learning achievement post-test scores as compared to their counterparts in the control group.

The comparison group underperformed maybe because of the use of the one-size-fits-all instruction whereby single lessons were delivered to all students in the same way and at the same. The same thing was done in this study because the teacher used only the textbook provided activities/tasks despite the different student compositions with different readiness levels, areas of strengths and weaknesses as well as diverse learning needs that might remain unmet. In line with this, when a textbook is designed at “grade level, for all students, the needs of the more advanced students doing above their grade-level expectations and the low achievers struggling and/or doing below their grade expectations are sacrificed” (Couper, 2005).

As Koez (2007) asserts, “a classroom where one (same) lesson is designed for all levels of learners, limits are placed on students’ achievements. Students who are advanced academically are left behind because they are under-challenged, and students who may be struggling are frustrated” (p.3). Despite the argument that students do have different areas of strengths and weaknesses and learn differently and at different rates and manners (Ireson & Susan, 2001) which implies that students need different learning opportunities to be successful.

In contrast to using the one-size-fits-all instruction, a differentiated instruction approach better accommodates a wide range of students with varying readiness levels, pays attention to learner centrality, acknowledges students’ strengths, and accommodates differences in students’ needs or limitations (Subban, 2006; Tomlinson, 1999; Tomlinson et al., 2003) and alleviates the pitfalls of the one-size-fits-all model of teaching (McBride, 2004).

The differentiating of instructions involves purposefully adjusting the delivery of lessons in at least the following aspects of instruction flexibly: content, process, product, and learning environment-learning conditions and using varied instructions strategies to foster optimal learning in each student (Tomlinson, 1999, 2001) to achieve and exceed learning objectives (Tomlinson,
1999). In the same vein, the lessons were purposefully adjusted for the intervention group in the form of anchored activities, tiered activities, and/or assignments were used and the grouping of students was also purposefully flexible to allow students to support and learn from each other and served as a learning opportunity.

Previous studies have been conducted on the effects of differentiated instructional practices in teaching the English language. The results of the studies highlighted the positive outcomes (Abate, 2013; Alaviaya & Farhady, 2012; Borja et al, 2015; Chien, 2014) despite the contextual differences that may affect the applicability of the results in in a different classroom situations and/or contexts.

In relation to the effectiveness of these innovative instructional practices in teaching English grammar, certain empirical studies highlighted promising results (Alhashmu & Elyas, 2018; Firwana, 2017). In an experimental study, Alhashmu and Elyas, investigated the effects of differentiated instruction on students’ grammar learning performance and found that implementing a differentiated instructional approach significantly improved the English grammar learning performance of students as measured by the pre-test and post-test results of the intervention group. This study also revealed that learning English grammar via differentiated instruction was favorably perceived by the female participants. However, it was found that differentiated instruction didn’t significantly improve the experimental group’s grammar performance as compared to the control group.

This study is different from the current study as it involved only female universities whereas the present study was conducted on male and female high school students recognized as low achievers, average achievers, and high achievers as identified via the pretest results and taught accordingly as different groups of student’s demand different learning opportunities. Differentiated instructions aim to maximize learning for all students in a single classroom, catering to their different readiness levels (current knowledge and skills levels).

The findings were also different in that differentiating instructions failed to significantly improve the experimental group as compared to the comparison groups. However, the results were parallel with the current study as the researchers used a pre-test and post-test quasi-experimental study design whose results contribute to actual classroom teachings and for its external validity.
Firwana, investigated the effectiveness of differentiated instruction on grade 2 grammar and vocabulary learning and found promising results. This study showed that differentiated instructional strategies significantly improved the grammar and vocabulary learning of the students. The results were parallel with the current study for its positive results in students’ grammar and vocabulary, the skeleton, and flesh of any language. This study differs from the present study in terms of length of intervention and participants. The study too didn’t find out which groups of students (struggling students, grade level students, or advanced students) significantly improved due to the intervention. The short period of intervention may affect the internal validity of the study whereas the present study was over four weeks.

Regarding the effects of differentiated instructional approach across gender variables, the results of this study showed that differentiated instruction hadn’t significantly improved students’ grammar learning as measured by the post-test results learning across gender variables through posttest scores of male students slightly differed from the female students. In a study that investigated the impacts [effects] of differentiated instructions for English language learners at secondary levels with gender in focus, Danielle (2009) found that neither male nor female students significantly outperformed in their academic performance that resulted due to alternating instructional conditions despite their better overall performance on the weekly formal assessment results during the eight weeks alternating traditional, teacher-centered methods and student-centered, differentiated instructions instructional strategies employed.

Conclusions

Despite the need for responsive instructional practices that provides students different learning opportunities, differentiated instructions, English teachers in Ethiopia largely use the conventional one-size-fits-all mode of teaching that no longer serves the ever changing needs of students. Thus, differentiated instruction is hardly practiced in almost all educational ladders for several reasons despite its potential benefits in promoting learning for all students in a single classroom.

Consequently, this study explored the effects of differentiated instructions in facilitating learning for all students, particularly the struggling, grade level and advanced students in the context of learning English grammar. The results revealed using some differentiated instruction as translated in to classroom practices via flexible grouping, tiered activities, scaffolding techniques
and anchored activities significantly improved the low achievers, average achievers, and high achievers (LAH) as compared to their counterparts taught via the “one-size-fits-all” instructions using only textbook provided activities or lessons.

However, the study indicated no significant difference in the learning achievements between male and female students. In conclusion, a differentiated instructional approach is helpful for facilitating learning all students in the context of teaching English grammar in EFL classes. Based on the results of this study, it was suggested that appropriated differentiated instructional strategies should be used in teaching English. The Ministry of Education should organize workshops and in-service trainings on differentiated instructions for English teachers so that they can integrate differentiated instruction in to the regular English class. Finally, further empirical studies should be done using this study as a stepping stone, in the local EFL context, with larger samples size as the small sample size used in this study might have contributed for the significant changes that result in this study.

Referencias


Couper, DS (2005). Lidiando con los problemas de las clases de habilidades mixtas. La revista TESL de Internet, 8/11.


