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Comparing the effects of deductive and guided inductive approaches on students' grammar achievement on teaching of passive

Bekele Askade
Lecturer, Sekota College of Teachers Education, Sekota, Ethiopia

Abstract
An experimental study was carried out to compare the effects of deductive and guided inductive approaches of grammar teaching on randomly grouped students in Sekota College of Teachers Education, Ethiopia. The researcher hypothesized that there will not be a significant difference between the deductive and guided inductive approaches of teaching grammar on students' grammar achievement. A total of 46 randomly selected volunteer first year linear students were randomly placed into two groups: Deductive Group (DG), Guided Inductive Group (GIG) each of which consists of 23 students. Then pre-test was administered before the actual treatment. Then both the DG and GIG were taught about passive of English language through deductive approach in P-P-P model and guided inductive approach using PACE model respectively lasting for 3 weeks (9 contact hours each). Then the data was analyzed through t-test. (Using SPSS Version 25). The findings revealed that t-test result of the pre-test revealed that there is no significant difference between the Deductive Group (DG) and the Guided Inductive Group (GIG). Whereas the t-test result of the post-test signaled that the learner-centered Guided Inductive Approach could be more effective than the traditional Deductive Approach to the teaching of English passive voices.

Keywords: approach, context, deductive, grammar, grammatical competence, inductive method, strategic competence, technique

Introduction

In the field of language pedagogy grammar teaching has been one of the most controversial issue. In the traditional approach, grammar was considered as the center of language teaching, and exclusively emphasized on the forms whereas in the strong communicative approach the emphasis shifted from the focus on forms to meaning. It was in the balanced approach that grammar teaching has got the appropriate attention.

Although some scholars argue against the need for it in the teaching learning process, grammar, which gives sense to language, remains an important part of language we use in everyday communication. With regard to this, (Kaplan, 2003) [8] said, "It is very difficult to make meanings clear without shaping grammatical and linguistic structures." Similarly, (Cook, 2013) [4] considers grammar as "the mental system of language." Moreover, students are required to develop accuracy However, based on researcher's more than ten years of experiences in teaching English at primary school, secondary school and higher education (college), many students appeared to be poor in terms of communicating accurate, appropriate and meaningful messages. Among many other factors, this can be apparently attributed to the way grammar is being treated in the teaching learning process

Most researchers and instructors in second language and foreign language instruction agreed that pedagogical practices make differences in language learning (Ellis Frodesen, J. and Holten and Larsen-Freeman, 2009) [6]. The discussion of which instructional approaches are most effective in foreign language learning in the classroom environments has taken several forms. One of the controversial issues in the field of language pedagogy concerns with whether grammar should be taught explicitly through a formal presentation of grammatical rules (i.e. deductive approach) or implicitly through natural exposure to meaningful language use (i.e. inductive approach).

Therefore, this study attempted to compare the effects of the traditional teacher- oriented deductive approach and the recent learner-oriented guided inductive approach on students' grammar achievement of grammar (passive) on students taking a course entitled Communicative English I (ENG 101) in Sekota College of Teachers Education, Wag Himera Zone of the Amhara Regional State, Ethiopia.

Statement of the Problem

Grammar is the process by which language is organized and patterned in order to make meaning. It also tells us the relationship between the participants, the topics of the message, the time of the action, the mood and attitude of the speaker or the writer. Therefore, it is argued that there is a need for teaching grammar for communicative purposes.

Grammar can be taught in different ways. Among these, the deductive instructional approach is the traditional approach of teaching grammar that focuses on the form and structure of the language. In this approach, the teacher tells students the rule followed by examples and controlled practices. On the other hand, the guided inductive approach is a recent learner-oriented method that emphasizes on learning through carrying out communicative grammar tasks, then the teacher will be raising the students' awareness of how the grammar of the language works, encouraging them to make meanings expressed i.e. the forms and structures are seen as a means to an end, not an end in themselves.

In the deductive approach the Thornbury's 3P (presentation, practice and production) model that starts with presentation of the rule by the teacher; gives examples by highlighting the grammar structures; and then practice with rules and

produce their own examples was used.
On the other hand, in the guided inductive instructional approach the Andaire-Huck, Donato, and Cumo-Johnssen's (2005) PACE model that teaches grammar through targeted structures that are embedded naturally in a presentation text was applied. More specifically the 'P' in PACE model stands for the presentation of the structure through a story or contextualized examples. The 'A' stands for attention; once the material is presented, the teacher calls for students' attention to a particular form through a practice session of examples. The 'C' stands for a construction phase in which both the teacher and students engage in a discussion seeking to develop an explanation or generalization about the form in question. Finally, the 'E' stands for extension activity, which provides the learner an opportunity to use the structure once the rule has been discovered.
The study focused on both process and product (i.e. describing what happened and analyzing the results). The products were examined in terms of learners' test scores.

The Hypotheses
The following hypotheses were stated to compare the effects of a deductive and a guided inductive instructional approach on students' grammar achievement.

The Null Hypothesis (Ho)
There will not be a significant difference between the effects of deductive and guided inductive approaches on students' grammar achievement.

(H_o: $\mu_1 - \mu_{2=}0$, or H_0: $\mu_{1=}\mu_0$)

The Alternative Hypothesis (H_1)
There will be a significant difference between the effects of deductive and guided inductive approaches on students' grammar achievement.

(H_1: $\mu_1-\mu_2\neq0$, or H_1: $\mu_1\neq\mu_0$)

Objectives of the Study
General Objective
The general objective of the study is to compare the effects of deductive and guided inductive approaches on students' grammar achievement on teaching of passive for students taking a course entitled Communicative English I (ENG 101) in Sekota College of Teachers Education.

Specific Objectives
This study attempted to address the following specific research objectives:

- Compare the measures of central tendency (mean, median, and mode) and measures of dispersion (range, variance, S.D) of the DG and GIG to describe the location of the center of distribution and the spread of scores respectively.
- Calculate the independent samples t- test for DG and GIG to compare the post test results.
- Calculate the paired samples t- test for pre and posttest of DG to compare the pre and post for DG results.
- Calculate the paired samples t- test for pre and posttest of GIG to compare the pre and post for GIG results.

Review of Related Literature
Definitions of Grammar
In order to implement the main approaches to grammar teaching, it is worthwhile to define grammar first. Various writers define and view grammar from different points of view at different times.
According (Beckner *et al*., 2009) [2] grammar is a study of language by specialists, made in order to establish the rules and principles which underline the current speech and writing rules and principles which are followed more or less unconsciously by the native speakers.
Others define grammar as prescriptions for using certain grammatical constructions and forms, and avoiding others; in others words, grammar is a prescription for using language according to socially determined norms.
From a descriptive point of view, it is defined as a description of syntactic structures and "rules" of language, as well as the actual structures and patterns. Generally, grammar is essentially about the systems and patterns we use to select and combine words.

Roles of Grammar Instruction
Knowledge of the grammatical system of the language was but one of the many components which underlay the notion of communicative competence. To be considered a competent user of a language, one needs to know not only the rules of grammar, but also how the rules are used in real life communication. Any language is systematically organized by its grammar that is inextricably linked to meaning and communication.
Grammar, which is the back bone of language, is important part of language us in everyday communication. It is very difficult to make meaning clear without shaping grammatical and linguistic structures (Ellis Frodesen, J. and Holten and Larsen-Freeman, 2009) [6] considers grammar as "the core mental system of language". This shows that grammar has an important role in English language teaching and learning. Moreover, students are required to develop grammatical accuracy that they need for university entrance and proficiency tests.
(Spada and Lightbown, 1993) [13] Concluded
Classroom data from a number of **s**tudies offer support for the view that form-focused instruction and corrective feedback provided with the context of a communicative program are more effective in promoting second language learning than programs which are limited to exclusive emphasis on accuracy on the one hand or an exclusive emphasis on fluency on the other hand.
To sum up, people now agreed that grammar is too important to be ignored, and that without a good knowledge of grammar, learners' language development will be severely constrained.

Main Approaches to Grammar Teaching
Grammar teaching has two main approaches. These are deductive and inductive approaches. Despite that fact that deductive and inductive approaches have the common goal of teaching grammar, they separate from each other in terms of ways of teaching.

A Deductive Approach /Explicit/

This approach refers to giving explicit information about grammar rules, usually in the form of explicit hard and fast rules. It is the product-oriented approach focused on presenting and practicing structure and form as discrete items and as end themselves i.e. as a goal not as a means for communication.

There are three basic principles, a deductive lesson starts with presentation of the rules by the teacher with examples by highlighting the grammar structures. Then, the students make practice with the rules and produce their own examples at the end of the lesson (Widodo, n.d.)

Table 1: Advantages and disadvantages of the deductive approach to teaching grammar

Advantages	1. The deductive approach goes straightforwardly to the point and can, therefore, be time-saving. 2. A number of rule aspects (for example, form) can be more simply and clearly explained than elicited from examples. 3. A number of direct practice/application examples are immediately given. 4. The deductive approach respects the intelligence and maturity of many adult learners in particular and acknowledges the role of cognitive process in language acquisition. 5. It confirms many learners' expectations about classroom learning particularly for those who have an analytical style.
Disadvantages	1. Beginning the lesson with a grammar presentation may be off-putting for some learners, especially younger ones. 2. Younger learners may not able to understand the concepts or encounter grammar terminology given. 3. Grammar explanation encourages a teacher-fronted, transmission- style classroom, so it will hinder learner involvement and interaction immediately. 4. The explanation is seldom as memorable as other forms of presentation (for, example, demonstration) 5. The deductive approach encourages the belief that learning a language is simply a case of knowing the rule.

An Inductive Approach /Implicit/

This approach refers to designing tasks that lead students to work out the rules for themselves with the help of the teacher and through carrying out communication grammar tasks. Such tasks and explanations should be awareness - raising, that is (1) they should assist learners in developing an awareness of grammatical choice- how grammar works to convey meaning, (2) they should also provide students with the capacity to make appropriate choices in given contexts. It is skill- oriented approach.

(Nunan, 1999) [9] Identifies inductive approach as a process where learners discover the grammar rules themselves by examining the examples. Inductive instructional approach has many forms and several strategies to be used in the classroom. Some rely on students to induce the rule themselves (Shaffer, 1989) [11] Others use techniques that focus students' attention on the structure through a series of leading questions.

Table 2: Advantages and disadvantages of the inductive approach to teaching grammar

Advantages	1. Learners are trained to be familiar with the rule discovery; this could enhance learning autonomy and self-reliance. 2. Learners' greater degree of cognitive depth is "exploited" 3. The learners are more active in the learning process, rather than being simply passive recipients. In this activity, they will be motivated. 4. The approach involves learners' pattern-recognition and problem-solving abilities in which particular learners are interested in this challenge. 5. If the problem-solving activity is done collaboratively, learners get an opportunity for extra language practice.
Disadvantages	1. The approach is time and energy-consuming as it leads learners to have the appropriate concept of the rule. 2. The concepts given implicitly may lead the learner to have the wrong concepts of the rule taught. 3. The approach can place emphasis on teachers in planning a lesson. 4. It encourages the teacher to design data or materials taught carefully and systematically. 5. The approach may frustrate the learners with their personal learning style, or their past learning experience (or both) would prefer simply to be told the rule.

Combination of Deductive and Inductive Approaches

Today one another issue discussed by language teachers is the applicability of combination of deductive and inductive approaches in one grammar session. Each method is based on different teaching approaches. Nevertheless, (Brown *et al*., 1983) [3] stated that "There may be some occasional moments, of course, when a deductive approach-or a blend between the two-is indeed more appropriate."

Indeed, it has been stated that it is highly probable to teach grammar by combination of deductive and inductive teaching. It is more intensifiers for students' attention is both directed to grammar rule and meaning at the same time (Mc Whiney, 1997) cited in (Nunan, 1998) [10]. Therefore, it seems to me that even though it is possible to make a combination in some cases, teaching by applying only one approach at a time is more feasible since it enhances the clarity of learning process.

Classroom Models of Grammar Teaching

This section deals with the three common models of grammar teaching: P-P-P, PACE, and EEE models in some details.

Presentation- Practice-Production /P-P-P/ Model

It is a very popular model of language instruction. Different versions of the p-p-p model can be seen in various language teaching and teacher training text books for foreign and second language teachers (Harmer, 1996) [7]. The p-p-p is what many teachers conceive of a basic lesson structure in many current L2 classrooms.

This model has three important stages: a presentation stage, a practice stage, and a production stage. In the presentation stage, the target grammar rules and structures are presented by the teacher.

The presentation stage is followed by the practice stage where students are given various kinds of activities and exercises for practice. Finally, in the production stage, learners are encouraged to use the rules they have learned in the presentation and practice stage more freely and in communicative activities.

However, the underlying assumptions of the more common p-p-p models have been questioned. (Ellis *et al*., 2003) [5] argued the p-p-p model is questionable because it is based on the belief that "practice makes perfect." He noted that this notion is not appropriate because language acquisition process appear to be governed by many psychological constraints. Moreover, (Skehan, 1996) [12] observes:

The underlying theory for a P-P-P model has now been discredited. The belief that a precise focus on a particular form leads to learning and automatization (that learners will learn what is taught in order in which it is taught) no longer carries much credibility in linguistic or psychology.

Exploration-Explanation-Expression/EEE /Model

As Sysoyev, 1999 cited in (Abate, n.d.) He calls the EEE model an integrative grammar teaching model. This model also has three stages: Exploration, Explanation and Expression. The first stage is an inductive learning where students are given sentences illustrating the target grammar rules and asked to discover the rules as a group with the help of the teacher. The second stage is a deductive learning in which teacher focus on the form and students learn the explicit grammar rules. In the last stage, expression stage, students gain experience in applying their grammar knowledge by producing meaningful senesces.

Presentation- Attention-construction-Extension /PACE/ Model

More specifically, the P in PACE stands for the presentation of the structure through a story or contextualized examples. The A stands for Attention, once the target structure is presented, the teacher calls students' attention to a particular form through a practice session of examples. The C stands for a construction phase in which both the teacher and the learners engage in a discussion seeking to develop an explanation or generalization about the form in question. Finally, the E stands for extension activity which provides the learners an opportunity to use the structure once the rules have been discovered.

Material and Methods

Research Design

A between-group experimental design with a pre-test and post- test was used to investigate the effects of a traditional deductive instructional approaches by using the 3P (Presentation, Practice, Production) model, and a guided inductive approach through PACE (Presentation, Attention, Construction, Extension) model on students' grammar achievement.

Subjects of the Study and Sampling Techniques

A total of 46 volunteered first year linear students taking a course ENG 101 out of the total students taking a course ENG 101 in 2019/2020 were selected by using simple random sampling through random number table to select appropriate sample with the minimum error that can be tolerated.

The participants of the study were randomly placed into two groups: deductive group (DG), guided inductive group (GIG) each of which consists of 23 students. Both the deductive group (DG) and the guided inductive group (GIG) were taught about passive of English language through deductive approach in P-P-P model and guided inductive approach using PACE model respectively. Both groups were provided with pre-test to assess their performance before the experimental treatment was given, and post-test to check the effects of the approaches after the experiment was conducted.

Data Collection Procedures

First the subjects of the study were divided into two equal groups and given pre-test. The pre-test was administered in their regular classroom at the same time and for the same amount of time for both groups. Invigilators were assigned for each class to control cheating and copying from each other. The post-test was also delivered in the same rooms at the same time by exchanging the invigilators after the experiment sessions was completed. The test papers of the pre-and-post tests were collected and scored by the researcher.

Data Collection Instruments

The following data collection instrument was employed to collect relevant, valid, and reliable data from the subjects of the study.

Test

As the research is experimental, both pre-test and post- test were designed and administered in different occasions. The first, the pre-test, served as a placement test. It was administered before the actual treatment was given. The aim is to check the current standard of the target group in their grammar performance on the passive. The pre-test is of 12 multiple choices, 8 paragraph completion and 5 sentence transformation. It has also 25 items that consists of 12 multiple choices, 8 paragraph completion and 5 sentence transformation. The post-test, on the other hand, is intended to check the effects of the two approaches on students' grammar achievement. Generally, each test consists of 25 questions that were divided into three sections. Each correct answer resulted in one point, making the highest possible score 25. Testing procedures related to the study took place in the participants' regular classrooms during the opposite shift. The participants were not told that there would be a post-test. All and all, the pre-and-post tests were the same in many ways like in number of questions, in question types and time allotment.

Ethical Consideration

Since ethical consideration is common in research work, the researchers respect rights, needs, values and desires of the participants. He showed or read the introductory letters or written permission from the college, the participants to process with the study. The researcher told them about the objective of the study and how the data is going to be used. The researcher also informed participants about all the data collecting devices and the activities. The researcher ensured the confidentiality of the data that no other person will access it and no harm they will be faced in relation to the data they gave to the researchers on the issue under study.

Results and Discussion

The Pre-test Analysis

The results obtained from data collection tools have been analyzed and interpreted below. Their statistical significance and narrative interpretations have been discussed in the light of data obtained from SPSS analysis.

The pretest was given before giving treatment for both groups to check the performance of the groups on the passive voices of the English grammar. Both the deductive and the guided inductive groups were expected to perform equally. A total of 46 volunteered first year linear students taking a course ENG 101 out of the total students taking a course ENG 101 in 2019/20 were selected by using simple random sampling through random number table to select appropriate sample with the minimum error that can be tolerated. The participants of the study were randomly placed into two groups: deductive group (DG), guided inductive group (GIG) each of which consists of 23 students. The pre-test result of the deductive and guided inductive groups will be analyzed below to see how well they had performed on passive voices of English language.

Table 3: The measures of central tendency (mean, median mode), and measures of dispersion (range, variance, and S.D)

		Pretest of DG	Pretest of GIG
N	Valid	23	23
	Missing	0	0
Mean		9.0435	8.5217
Std. Error of Mean		.68432	.49451
Median		9.0000	8.0000
Mode		9.00	8.00
Std. Deviation		3.28188	2.37160
Variance		10.771	5.625
Skewness		.220	.474
Std. Error of Skewness		.481	.481
Kurtosis		.796	-.245
Std. Error of Kurtosis		.935	.935
Range		14.00	9.00
Minimum		2.00	5.00
Maximum		16.00	14.00
Sum		208.00	196.00

As presented in the table above, the mean score of the deductive group is 9.04 which is similar with the median and the mode values. This indicates that the scores are normally distributed or it is said to be symmetrical. The mean score of the guided inductive group (GIG) is 8.5217 while the median and the mode score are identical (8). Here, the mean value is slightly greater than the values of the median and the mode, thus indicating the skewness of the distribution to the right. The measures of central tendency (mean, mode and median) in both groups are closer to one another thus suggesting nearly a symmetrical distribution. As shown in the table above, the test scores range from 2-16 in the DG and 4-14 in the GIG. Such a range indicates that there is a good spread of scores and the test was somehow good one in discriminating between strong and weak students. The value of standard deviation of scores of the deductive group, as shown above, 3.28188 while the value of the standard deviation of the scores of the guided inductive group is 2.37160. The relatively low value of the standard deviation in the guided inductive group is an indicator of the distribution being clustered around the mean.

The nearly equal values of standard deviation of the deductive group (3.28188) and of the guided inductive group (2.37160) also indicate that they deductive groups showed difference in performance on the test scores.

Differences of DG and GIG as Determined by the T- test (pre-test)

So far, an attempt has been made to examine the measures of central tendency (mean, median, mode) and measures of dispersion (variance, range, S.D). A further attempt was also made to compare the observed average scores differences between the two groups. However, comparing observed average score differences without applying a statistical test cannot help in arriving at a definite conclusion. The purpose of this section is to apply an independent samples t-test for the comparison of average score differences. The mean and standard deviation will be central to the calculation of t-values.

Table 4: Differences between DG and GIG as determined by the T-test (Pre-test)

	N	Mean	Std. Deviation	Std. Error Mean	T	Df	Sig.
Pretest of DG	23	9.0435	3.25406	.67852	13.328	22	.000
Pretest of GIG	23	8.5217	2.37160	.49451	17.233	22	.000

d_f= degree of freedom; Sig=significance

As stated earlier, the value of standard deviation of the deductive group (3.25406) was greater than the value of standard deviation of guided inductive group (2.37160), but when the figures are tested out by a t-test at 5% level of significance in a two-tailed test and 22 degree of freedom, the value of t (17.233) is greater than the value of t (13.328). Therefore, the null hypothesis is accepted and the alternative hypothesis is rejected. Based on this, we can conclude that the performance of the two groups in the pre-test was equal, showing that they had almost no difference in their English grammar performance before the experiment started.

The Post-test Analysis

The post test is important, because the result of the analysis will form basis for the comparison of the performance of the two groups (that is the deductive and guided inductive groups). Moreover, the analysis of the post-test result is crucial as it leads us to arrive at the rejection or acceptance of the alternative hypothesis in view of the effects brought by the teaching of the passive voices of English language.

After the experimental sessions had been completed both the deductive and guided inductive groups were provided with a post-test that consists of 25 questions. Each correct answer resulted in one point, making the highest possible score 25. In this test, all students from both groups were participated for the post test. For this reason, the total number of subjects in the deductive group and guided inductive group were the same with the pretest, 23 for each group. As it was done in the pretest, the measures of central tendency (mean, median, mode) as well as measures of dispersion (Range, Variance, S.D) of the posttest were calculated as shown in the table below.

Table 5: The mean, median, mode, range, variance and S.D of the post-test scores of DG and GIG respectively.

Groups	N		X	Md	Mo	S. D	S^2	Sk.	Kur	R.	Max	Min.
	Valid	Missing										
DG	23	0	12.3	12	9	2.88	8.3	-.172	-.65	11	17	6
GIG	23	0	15.9	15	11	3.66	13.4	.167	-1.21	12	23	11

N=number of students; $\bar{x}$ =the mean; Md= the median; Max.= the maximum score; Mo= Mode; Min.= the minimum score; s^2= variance; S. D= standard deviation; Sk.=Skewness; Kur= Kurtosis, Max= maximum; Min=Minimum

The above table shows that the mean and median score of the deductive group is 12.3, while the median and mode scores are 12 and 9 respectively. This indicates that the mean is the largest in value, and the median is greater than the mode.

The distribution of scores in the guided inductive group has a mean of 15.9 and a median of 15 the two value scare slightly different, thus indicating nearly symmetrical distribution. It also implies that the mean score is not highly affected by extreme scores in the distribution.

The measure of central tendency (mean, median and mode) of the deductive group is less than the mean, median and mode values of he guided inductive group. This indicates that the guided inductive group performed better than the deductive group.

The ranges of test scores in the deductive and guided inductive groups extend from 10-31 and 8-33 respectively. This may indicate a good disperse of scores and the test has a good discriminating power. The value of standard deviation (2.88) of the deductive group is relatively larger than the value of standard deviation (3.66) in the guided inductive group in relation to their respective mean scores.

The relatively the small value of the standard deviation (2.88) of the DG is an indicator of the distribution being clustered around the mean value while the large value of standard deviation (3.66) indicates the scores are relatively more spread of out relatively to the mean. The different values of standard deviation of deductive and guided inductive groups indicate the subjects' different performance on the test scores.

Table 6: Differences of DG and GIG as Determined by the T-test (post- test)

Group Statistics					
	Grammar teaching approaches	N	Mean	Std. Deviation	Std. Error Mean
Posttest of DG	Deductive groups	23	12.3043	2.88310	.60117
and GIG	Guided Inductive Groups	23	15.8696	3.66252	.76369

The above comparison indicates the fact that the guided inductive group performed better than the deductive groups after both groups were exposed to their respective teaching approaches. To decide whether or not the observed differences are statistically significant, the t-test was applied. Therefore, the t-test was applied for the hypothesis testing in order to see the differences of the two groups and prove whether or not the differences are statistically significant. The following table shows the results of t-test.

Table 7: Differences between the DG and GIG as determined by the T-test (post-test)

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Posttest of DG and GIG	Equal variances assumed	3.06	.087	-3.67	44	.001	-3.5652	.97192	-5.52399	-1.60645
	Equal variances not assumed			-3.67	41.7	.001	-3.5652	.97192	-5.52704	-1.60339

As it can be seen at the column labeled Sig. (2-tailed) under the heading "Levene's Test for Equality of Variances", its value of Levene's test is 0.01. If this value is less than or equal to our α level for this test, then we can reject the null hypothesis (Ho). That the variabilities of the two groups are equal, implying that the variances are unequal and accept the alternative hypothesis. Therefore, in this research the null hypothesis is rejected and the alternative hypothesis is accepted. Therefore, it can be concluded that the performance of the guided inductive group students is better than that of the deductive group ones.

Table 8: The Summary of Pre-test and Post-test Grammar Test Scores

No	Groups	N	Test type	Mean	Md	S. D
1	DG	23	Pre test	9.04	9	3.21
			Post test	12.3	12	2.88
			Difference	-3.26	3	-0.33
2	GIG	40	Pre test	8.51	8	2.3
			Post test	15.9	15	3.66
			Difference	-7.39	-7	-1.36

According to the table, the results from the grammar test for the deductive group show a mean score of 9.04 on the pretest and 12.3 on the post-test. When we compare the means of the two tests, the difference is -3.26. This implies that an improvement of 3.26 in the mean is the result of the intervention (training).

When we come to the guided inductive group, we can see 7.39 differences between the pre-and-posttests means. The means difference in the guided inductive group is relatively larger than the means difference in the deductive group. This may indicate that the performance of students in the guided inductive group is better than the performance of students in the deductive group in the post grammar test.

The mean and the median values show further about the distribution of scores. The difference between the mean and the median is not very wide in both tests in the two groups. This indicates that the distribution of the scores makes a normal curve (Heaton, 1998).

In addition, the values under standard deviation indicate the deviation of the learners' scores from the means. The data in the table show that the standard deviation in the DG (-0.33) is less than the standard deviation in the GIG (-1.36).

Conclusions

Based on what has been found out as a result of this study, the following conclusions are drawn:

- The t-test result of the pre-test revealed that there is no significant difference between the Deductive Group (DG) and the Guided Inductive Group (GIG).
- The t-test result of the post-test signaled that the learner-centered Guided Inductive Approach could be more effective than the traditional Deductive Approach to the teaching of English passive voices.
- Generally, the findings of this study signaled that the learner-centered guided inductive approach could be more effective than the traditional teacher-centered deductive approach to the teaching of the active and passive voice. Therefore, it would be advisable to use the guided inductive approach more frequently than the deductive approach to teach communicative grammar that emphasize on the form-meaning-use integration for students in EFL classrooms.

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