**A Comparative Study of the Impact of Interpretation-based, Task-based, and Mechanical Drills Teaching Methods on Iranian English Language Learners’ Grammatical Development**

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**Abstract**—Since grammar has been an important part of language learning, this study was aimed to investigate the impact of three different methods (meaning-based method, task-based method and mechanical drill method) on grammatical development of Iranian EFL learners by teaching conditional sentences. This study was performed in Jahad Daneshgahi Language School of Kermanshah, Iran. The researcher administered a pre-test to see if the learners could make a homogeneous group in terms of proficiency or not. 51 learners were chosen to participate in the study. The learners were studying Top notch book (the third level). The participants were divided into three groups, each group containing 17 learners. The classes were co-educational, containing both male and female learners. Their ages ranged between 17 to 35 years old. This study was done in fall 2014. Analysis based on ANOVA and post hoc indicated that teaching conditional sentences with task-based instruction in comparison with two other methods, leads to a better grammatical development on Iranian EFL learners. The result of the study indicated that majority of the learners had a better performance on the test based on task-based method treatment.

**Index Terms**—authentic tasks, comprehensible input, drilling, task-based activities

**I. INTRODUCTION**

**Background of the Study**

One of the most important concerns of applied linguistics is to concentrate on grammar teaching in order to have a better communication in classrooms (Ellis, 2006). Some studies have investigated focusing on form, such as mechanical drills, while for others meaning is primary, as an example task-based instruction. Second and foreign language acquisition has started to expand in all the related fields (e.g. cognitive, grammatical, pragmatic, etc) quickly over the past twenty five years. Nowadays grammar is taught in a variety of different ways (Ellis, 1998). Some of these are more suitable for certain than the others. Therefore this study is going to compare three different grammar teaching methods: Mechanical drills, Task-based grammar teaching and Interpretation-based exercises on Iranian Foreign language learners.

Mechanical Drills refer to practice activities that focus only on grammatical features without any need to attend to meaning. Here the teacher controls the way of response and there is only one correct way of responding, so the drill is defined as mechanical drill. And learners do not have to understand what is being drilled. The focus is on form. The primary aim in the use of drills is for the learners to be able to transfer the drill habits into his conversation, and the learner should be intellectually and emotionally involved in the activity (McCaul, 1973).

Since 1970 there has been a revolution in language teaching and learning and the main focus has been on the communication rather than grammar. Therefore, task-based language teaching and learning or TBLT focuses on the use of authentic language and on asking students to do meaningful tasks using the target language. Such tasks can include visiting a doctor, filling out a form, requesting, or inviting someone to a party, etc. (Ellis, 2003).

Interpretation-based grammar approach focuses on input more than output. This approach concentrates on noticing of grammatical features in the input comprehension of the meaning, and comparison between them with those which occur in the learners output (Agiasophiti, 2011).
This study aimed to investigate which of the three methods would develop the learners’ proficiency in learning conditional sentences.

**Research Question**

The research questions were:

1. Do Mechanical drills lead to a better grammatical development as compared with Task-based Grammatical Approach?
2. Do Mechanical drills make a better result in teaching grammar as compared with Interpretation-based Approach?
3. Does Interpretation-based Approach have any superiority over Task-Based Approach in terms of teaching grammar?

Besides, the researcher proposed the following research hypothesis to be investigated in this study:

1. Mechanical drills instruction has a better effect on student's grammar in foreign language classes as compared with Task-based instruction.
2. Mechanical drills can make a better result in teaching grammar than Interpretation practices.
3. Interpretation-Based practices are superior to Task-Based practices in teaching grammar.

**II. REVIEW OF LITERATURE**

**Traditional Grammar versus Modern Grammar**

In the old days, some teachers mistakenly taught that an English sentence could not end with a preposition. But that idea was not correct. Some immature teachers today mistakenly teach that the pronoun "I" may be the object of a preposition, like: "Dad took my sister and I to the lake". But that is incorrect. In Traditional English Grammar, grammar is important— it is what combines words together.

Sentence construction relies on grammar in order to make it comprehensible. Since grammar consists of principles and rules by which we can organize words and sentences into meaningful and coherent language. Whenever we violate these principles and rules of grammatical organization, "errors" occur (Thomas, 2003).

In Modern English Grammar, grammar is important too. But seemingly the structures of English grammar have changed. Academically speaking, certain expressions or sentence structures which were considered wrong in the past are now considered acceptable and correct by many English experts. Due to very fluid communication of today's world, people are exposed to all sorts of varieties simultaneously, and this affects language (Thomas, 2003).

**Task-based Language Teaching**

One approach to teaching a language that has attracted a lot of attention over the past twenty years is task-based teaching and learning. In this approach the focus of the class activity is on the task, and finally on meaning. Usually learners begin by carrying out a communicative task, without specific focus on form (Leaver & Willis, 2004).

Task-based language teaching focuses on the use of authentic language and also on asking the learners to do meaningful tasks using the target language. Authenticity concerns whether a task needs to correspond to some real world activity, i.e. achieve situational authenticity (Ellis, 2003). It can include variety of activities such as interview, visiting a doctor and those routine activities we usually do in the real world. It is a kind of communicative behaviour in form of language (Skehan, as cited in Ellis, 2003). Tasks may involve both written and oral activities. Tasks can be used for all language skills. Nunan (1989) talks about tasks involving learners in comprehending, manipulating, producing, or interacting in the target language. However in addition to linguistic, there is a cognitive dimension to a task. Prabhu talks about tasks involving some processes of thought. For him tasks should ideally involve learners in reasoning-making connection between pieces of information, deducing new information, and evaluating information (Prabhu, 1987). Tasks clearly involve cognitive processes such as selecting, reasoning, classifying, sequencing information, and transforming information from one form of presentation to another. One of the limitations of both second language acquisition and language pedagogy is that insufficient attention was paid to the cognitive dimension of tasks. So it seems reasonable to suppose that there will be a relationship between the levels of cognitive processing and required and the sort of structuring and restructuring of language that tasks are design to bring about (Robinson, 2003).

**Mechanical Drills**

When there is control of response and only one correct way of answering, the drill is defined as mechanical drill. Due to complete control over the response, it is not required that learners to understand what is being drilled. Repetition and substitution drills to some extent come under this category. In the repetition drill, the learner repeats the teacher's utterances (Wong & Patten, 2003).

Unlike two other methods in this approach students think about the form more than meaning. Many scholars feel the need to restore form-focused instruction and error correction as a part of the language teaching/learning context. Mechanical drills include repetition, paradigm conjugation, as well as substitution and transformation drills (Spada & Lightbown, 2008).

**III. METHODOLOGY**

**Participants**
The participants for this study were three classes of adult students of pre-intermediate level. The practical study was conducted in Jahad Daneshgahi Language School in Kermanshah, Iran in the fall of 2014. The class consisted of both males and females who had been studying for almost two years. The participants were divided into three classes. In each class there were seventeen students. The educational program consisted of two sessions a week each session lasting one hour and a half.

In the first experimental group which received interpretation-based teaching method, there were seventeen students, nine female and eight male students.

In the second experimental group which received task-based teaching method, there were seventeen students, eleven female and six male students.

In the third group which received Mechanical drill instruction, there were seventeen students six female and eleven male students.

**Instruments**

In order to investigate the result of the current study, the following procedures were pursued. The study started with the pre-test in order to find the homogeneity of learners, the treatment (three different methods), then an immediate post-test and finally a delayed post-test to evaluate to what extent the learners had learned in the treatment. The purpose was to check the efficiency of each method. The pre-test and post-tests were the same, and there were 30 questions, multiple, matching, gap-filling and explanatory questions with 20 minutes allocated for each test.

**Procedure**

There were three classes studying English in conversation classes in Jahad Daneshgahi Language Academy located in Kermanshah, Iran. The study was quasi-experimental in which the learners were not selected randomly. The learners were from different age groups, but majority of them were university students. Each class contained 17 students, and received a different treatment.

In the first class which received meaning-based grammar teaching method there were seventeen students (nine male and eight female students). Firstly, they were given a pre-test which contained 30 items including explanatory questions, matching, and filling-gap questions then, they received the treatment and then post tests; one immediately after the treatment and the other, ten days week after the treatment. The post-tests were assigned to assess their grammatical development possibly as a result of the treatment. The grammar point was conditional sentences which were taught inductively. First the learners were given two short reading texts and the treatment was through noticing; therefore the learners were given texts with highlighted conditional sentences (visually enhanced) through italicizing, bolding and changing of the font. After that they had to complete certain tasks. The tasks required the learners to answer some questions yes/no questions based on the reading. Then they had to answer some information questions based on the reading. Then they were given some incomplete sentences that the learners had to complete.

In the second class which received task-based grammar teaching method, there were seventeen students (eleven female and six male students). Again they received pre-test, treatment and two post-tests (immediate and delayed). After the pre-test, the class started by giving some short reading texts in which conditional sentences were used. The learners learned conditional sentences through noticing. Conditional sentences were bold information about conditional sentences. The grammar was taught with the mixture of both deductive and inductive teaching method. At the first step, the students were given cards individually (each one card). They had to find whether the sentence is first, second or third conditional sentence and then fill in the blanks with the correct form of the verb by paying attention to the other part of the sentence, i.e. main or subordinate clause then, the class was divided into two groups. The students were given some cards. Each group had two kinds of cards, one with the main clause and one with subordinate clause and the students had to match the sentences with different clauses. Every card had one clause, either main or subordinate clause with different sentences.

In the third class which received mechanical-drills grammar teaching method, there were eleven students (six female and eleven male students). The procedure was the same as two other methods mentioned above. After the pre-test the students received the treatment. The conditional sentences were taught by using drills. The grammar was taught deductively. By one example, they were told how to use clauses in a different conditional sentence. Then the students repeated the examples written on the board. Next, they made more examples by their own and finally they did the exercises and later the post-test.

**IV. RESULTS AND ANALYSIS**

The learners were given a grammar test before and after the treatments. The pre-test assessed their prior knowledge of grammar and post-tests were given to assess their grammar development in short and long term.

**Pre-Test Result Analysis**

The following table shows the descriptive statistics of the performance of three groups on pre-test.
while those who were taught with mechanical drills method, achieved (14.82, 10, 26). respectively, those learners who were taught with task-based method, achieved (17.47, 11, 24), post-test in all three methods mentioned above (table 2), those learners who were taught with meaning-based method, immediate and a delayed post-test were used for each group.

Based on the attained results which is depicted in table 1, the mean score, minimum, and maximum of pre-tests in three methods (meaning-based, task-based and mechanical drills methods) are shown in order; first those learners who received the treatment with meaning-based instruction: 11.41 was the mean score, 3 was the maximum score, and 16 was the minimum score for this group of learners.

For the second group who received task-based method treatment, 13.47 was the mean score, 10 was the minimum and 17 the maximum score.

For the third group who received the treatment with mechanical drills, 11.41 were the mean score, 5 were the minimum score and 18 was the maximum score.

**Post-test Results Analysis**

In order to assess short term and long term grammatical development of the participants after the treatments, an immediate and a delayed post-test were used for each group.

**Immediate Post-test Result Analysis**

The following table shows the difference among post-test scores of three groups.

<table>
<thead>
<tr>
<th>Score</th>
<th>Interpretation-based instruction</th>
<th>Task-based instruction</th>
<th>Mechanical drills approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Percent</td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>1-5</td>
<td>2</td>
<td>11.8</td>
<td>0</td>
</tr>
<tr>
<td>5-10</td>
<td>4</td>
<td>23.5</td>
<td>2</td>
</tr>
<tr>
<td>10-15</td>
<td>9</td>
<td>52.9</td>
<td>11</td>
</tr>
<tr>
<td>15-20</td>
<td>2</td>
<td>11.8</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>100</td>
<td>17</td>
</tr>
<tr>
<td>Mean</td>
<td>11.41</td>
<td>13.47</td>
<td>11.41</td>
</tr>
<tr>
<td>Median</td>
<td>13</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>3.890</td>
<td>2.267</td>
<td>3.519</td>
</tr>
<tr>
<td>Minimum</td>
<td>3</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Maximum</td>
<td>16</td>
<td>17</td>
<td>18</td>
</tr>
</tbody>
</table>

**Task-based instruction**

Based on the attained results, it can be inferred that the mean scores, minimum and maximum scores of immediate post-test in all three methods mentioned above (table 2), those learners who were taught with meaning-based method, achieved (13.12, 6, 22) respectively, those learners who were taught with task-based method, achieved (17.47, 11, 24), while those who were taught with mechanical drills method, achieved (14.82, 10, 26).

**Delayed Post-test Results**

Delayed post-test was used to show the differences among three groups of learners in long term.
Based on the attained results, it can be inferred that the mean scores, minimum and maximum scores of delayed post-test in learning three different methods (meaning-based, task-based and mechanical drills methods) shown in table 1, for those learners who were taught with meaning-based method the scores were (14.12, 6, 14) respectively for in the mean, minimum and maximum scores.

Those learners who were taught with task-based achieved (18.47, 14, and 26), while the third group who received the treatment with mechanical drills method, achieved (13.88, 8, and 24) in order of mean score, minimum and maximum score.

Inferential Statistics
In order to make the descriptive findings more meaningful, inferential statistics, One-way Variance Analysis (ANOVA) in this case, was required.

Table 4
The Results of One Way Variance Analysis (ANOVA) Regarding the Pre-test from Three Groups

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>50.824</td>
<td>2</td>
<td>25.412</td>
<td>2.176</td>
<td>.125</td>
</tr>
<tr>
<td>Within Groups</td>
<td>590.471</td>
<td>48</td>
<td>12.676</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>641.294</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In order to find the differences between the current knowledge of the participants in three groups, one way ANOVA was used, since it provides F value which is a ratio of the amount of variation among the groups. F value for pre-test is 2.176 and the level of significance of the test is .125. The significance P value was set as 0.05.

Since the significance of the test was .125, as it is shown in Table 4, it is more than the P value (0.05), it can be concluded that there is no significant difference between the groups in their performance in the pre-test (sig > P value, so null hypothesis which claims that there is no difference between the groups is accepted). In other words the learners were homogenous enough to be participants of the study.

Table 5 gives both between groups and within groups’ sum of squares, degrees of freedom, F value etc. Based on the sig value attained from variance analysis and comparing it with P value (P<0.05, F=4.966) and sig value (.11) is smaller than P value (.11 < .05) with certainty of 95 percent, it can be concluded that the hypothesis of H0 that there is no difference among the learners’ mean scores at the stage of immediate post-test is rejected, i.e. there are significant differences among the learners’ mean scores in different teaching methods at the stage of immediate post-test. Thus according to the attained statistical significant differences, the result of the post hoc tests (Duncan) was provided in table 6 in order to find the source of significance in our data.

Table 6
Result of Duncan Post Hoc Test to Compare Learners’ Mean Scores on Immediate Post-test

<table>
<thead>
<tr>
<th>groups</th>
<th>N</th>
<th>Subset for alpha = 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaning-based instruction</td>
<td>17</td>
<td>13.1176</td>
</tr>
<tr>
<td>Mechanical drills approach</td>
<td>17</td>
<td>14.8235</td>
</tr>
<tr>
<td>Task-based instruction</td>
<td>17</td>
<td>17.4706</td>
</tr>
</tbody>
</table>

Based on the attained data in Duncan table shows that those learners who were taught with task-based teaching method, had higher scores and better grammar development on conditional sentences, and the learners who were taught with two other methods, i.e. (interpretation-based and mechanical drills approaches) had lower scores and the less grammar development.

Table 7
The Results of One Way Variance Analysis (ANOVA) of Long Term Grammar Development of Three Groups (Delayed Post-test)

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>276.980</td>
<td>2</td>
<td>133.490</td>
<td>8.460</td>
<td>.007</td>
</tr>
<tr>
<td>Within Groups</td>
<td>997.765</td>
<td>48</td>
<td>20.787</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1224.745</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on Sig value which was attained from the variance analysis and comparing it with P value 0.05 (P <0.05, F=5.460), with the certainty of 95 percent, it can be concluded that H0 (null hypothesis) claiming no difference between learners’ mean scores on delayed post-test, \( \text{was rejected, i.e. there are differences between learner’s delayed post-test scores with different methods.} \) Thus in order to find out these differences Duncan post hoc test was used.
Based on the data available in table 8 of Duncan post hoc test shows that the learners who were taught with the Task-based teaching method had higher scores and development and those who were taught with two other methods (meaning-based and mechanical drills methods) had almost similar scores and less quality of learning development.

V. DISCUSSIONS AND CONCLUSIONS

Deductive teaching is a traditional approach in which information about target language and rules are given at the beginning of the class and continue with examples. The main target is to teach grammar structures (Nunan, 1991). According to Haight’s principles, deductive lesson starts with presentation of rules by the teacher, and the teacher gives examples by highlighting the grammar structures, then students make practice with rules and produce their own examples at the end of the lesson. In a deductive approach learners are passive participants when the teacher elicits the rule on the board (Haight, Herron & Cole, 2007).

Nunan (1991) identifies inductive approach as a process where learners discover the grammar rules themselves. In an inductive approach it is also possible to use a context for grammar rules. That is to say learners explore rules of grammar in a text rather than isolated sentences. Haight et al., (2007) state that in an inductive approach, learners are provided with examples which include the target grammar that they will learn. The learners discover the rules themselves and work on the examples. Then they create their own examples. In an inductive approach learners are active as they are responsible for exploring rules themselves. Interpretation-based teaching method which was studied in this research paper is a subcategory of inductive approach.

Task based teaching approach is the combination of both deductive and inductive approaches, since learners are taught the grammar and they are guided how to do the tasks. But the learners are active in the class, and the teacher is passive then.

Based on the title of this research the comparison is among three teaching methods as mentioned above, but no previous study has been performed to compare the impact of these three methods (interpretation-based, task-based and mechanical drills approaches to teaching grammar) on EFL learners’ development. One method that has attracted a lot of attention over the past twenty five years is a task based approach to learning and teaching (TBLT). As mentioned in previous chapters, the focus of the classroom is on the task, ultimately on meaning. Skehan (1996) states that learners (and native speakers) place great emphasis on communicating meanings, but not necessarily worry about the exact form they use. The result of this study can corroborate Ellis’s belief (2003) stating that this form of teaching promotes communication along with other skills. He also believes this method of teaching can aim to interrelate research and teaching, and it is a useful way to integrate all the skills including grammar, in a way that seems to be more natural and authentic than other teaching methods.

The findings regarding interpretation-based grammar teaching proved previous research in this area. Sugiharto (2009) supported teaching grammar by exclusive comprehension-based approach, but it remained unclear that whether the grammatical items that have been noticed or comprehended by the learners can successfully be used in the production of language use. Nor it can be warranted that what has been noticed or understood in the input can become intake (Sugiharto, 2009).

The findings regarding mechanical drills were consistent with Paulston and Bruder (1976) stating that grammar permeates all language skills, and learning grammar of the target language has communicative purposes. Since mechanical drills just focus on the structure and form, and repetition and substitution are two extreme examples of this method, a type of rote learning, and meaning is not primary, it has a root in behaviorism and learning a language is considered as a habit formation. Also these findings could corroborate Ellis’s (2006) stating that grammar teaching should be one that emphasizes not just on form but also on the meanings and uses of different grammatical structures. Sometimes learners drill without understanding but the teacher should make sure that in fact they do understand. So this type of teaching method usually is recommended for primary level learners.

In this study there were three hypotheses:

1. Mechanical drills instruction has a better effect on student’s grammar in foreign language classes as compared with Task-based instruction.
2. Mechanical drills can make a better result in teaching grammar than Interpretation practices.
3. Interpretation-based practices are superior to Task-based practices in teaching grammar

As discussed before, the first hypothesis is rejected since the learners who received the treatment of task-based method had better scores in comparison with those who received mechanical drills teaching method, and the second hypothesis is accepted since the learners achieved better scores in mechanical drills as compared to the scores of learners who received interpretation-based teaching method although the difference between their scores in these two
groups was not impressive. The third hypothesis is rejected and it is concluded that task-based teaching method was superior to two other methods mentioned above. The learners had better scores, they were motivated, and this method is also suggested for the learners who are shy and avoid being active in the class since they work in groups. This may activate more mental processing and learners felt more comfortable and led to a better grammatical development.

The advantage of the task-based approach, according to its advocates, is that during the task the learners are allowed to use whatever language they want, freeing them to focus entirely on the meaning of their message. This makes it closer to a real-life communicative situation (Skehan, 2003).

REFERENCES


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