AN INVESTIGATION OF THE ROLE OF PRIVATE SPEECH IN IRANIAN INTERMEDIATE EFL LEARNER’S GRAMMAR DEVELOPMENT

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ABSTRACT
Grammar development is an important part of any language learning process and researching how to enhance grammar development of EFL learners is one of the main concerns of educators in language learning and teaching areas. This paper focuses on the role of languaging in grammar development of Iranian intermediate EFL learners. The participants in this experimental study were seventy two male and female intermediate EFL learners, assigned to three groups, languaging group, Inductive group and deductive group, each including twenty four learners, receiving different treatments of grammar teaching during three sessions each lasting 90 minutes. A pre-test/pos-test design was used and the attitudes of the participants in languaging group were gathered based on an interview after the treatment procedure. Analysis based on ANOVA and Post-Hoc tests indicated that languaging in comparison with inductive and deductive grammar teaching leads to a better grammar development of Iranian EFL learners in short-term, the findings also showed that inductive grammar teaching in comparison with languaging and deductive grammars teachings leads to a better grammar development of Iranian EFL learners in long-term. Nearly seventy percent of the participants in languaging group had a positive view on the languaging technique as a tool to learn grammar.

Keywords: Sociocultural Theory, Private Speech or Languaging, Deductive Grammar Teaching, Inductive Grammar Teaching

INTRODUCTION
Lev (1896–1934) provided a foundation for SLA research through the analysis of the development of mental systems as humans acquire and develop the ability to communicate through language, indeed he did not write extensively about language, he was a psychologist and theorist of child development, but what he did, made a strong foundation for understanding the interrelationship between thinking and language processes involved in communicating meaning in a second language. Since that time his views on child development have become increasingly influential, psychologist such as Bruner (1985), Wertsch (1985, 1991) and others took up his main ideas (meditation and mediated learning, scaffolding and zone of proximal development, microgenesis and private and inner speech), indeed they introduced current Sociocultural theory or Neo-Vygotskian theory.

Review of Literature
According to Ellis (2008), in Sociocultural theory, second language acquisition and learning is viewed as the product of mediated activity, in which learner progresses from object- and other- regulation to self-regulation through interacting with others. Research findings by Frawley and Lantolf (1985) showed that in order to organize their thoughts, focus their attention and overcome difficulties during a language task; language learners externalize their thinking process.

Within the Sociocultural framework, interaction is a focused and highlighted element that is directly related to one’s development. Active interaction is a key element that brings a student success in development.

In Vygotsky’s point of view (1962) language plays a great role in cognitive development; first language is the main tool by which adults transmit information to children, later this tool itself will be a very powerful mean for growing intellectual adaptation, Vygotsky (1978) believed that almost all mental functions of...
human originate in the social and cultural context and language is like a tool for mediating our mental functioning. —"It is by means of language that culture is transmitted, thinking develops and learning occur" (Williams & Burden, 1997).

Vygotsky (1986) perceived language development as a process which begins through social contact with others and then gradually moves inwards through a series of transitional stages towards the development of inner speech.

Private speech is usually described as the kind of speech that —addresses to the self, for self-regulation purpose and its primary purpose is to help plan, guide and monitor one’s own activities (Diaz, 1992).

Lantolf and Beckett (2009) defined private speech as —speech that is social in origin but which is cognitive in function. That is, it is used by individuals to organize and regular their own mental behavior (p. 459). Merill (2006) relabeled private speech as languaging, so we can use them interchangeably: Languaging … refers to the process of making meaning and shaping knowledge and experience through language. It is part of what constitutes learning. Languaging about language is one of the ways we learn language. This means that the languaging (the dialogue or private speech) about language that learners engage in takes on new significance. In it, we can observe learners operating on linguistic data and coming to an understanding of previously less well understood material. In languaging we see learning taking place (p. 98).

For a researcher, this type of speech provides clues to such mental operations as focusing attention, planning, monitoring, self-motivating, pacing motor activity, etc., while performing specific tasks.

Some researchers have investigated the possibility of using languaging in learning second language. Ohta (2001)’s longitudinal study cited in Mitchel et al., (2013) is a good example of one of the first researches to investigate the role of private speech in EFL classes. She conducted a year longitudinal case study in 1996 and 1997 of the private speech of seven adults ‘Japanese learners in their foreign language classroom, she found that private speech gives a rich opportunity to Japanese English learners to repeat and rehers their second language learning by testing hypothesis of the recently learned materials.

Another study which is a base for the present research is Swain et al., (2009) research about the process of internalization of grammatical concept of voice in French; she found that there is a positive relationship between languaging and learning L2 grammatical concepts. Vidal (2010), Garcia (2012) and Negueruela (2012) confirmed that learners’ languaging were key factors to L2 Conceptual development; also as a meditational tool it fostered learners ‘internalization of second language.

Significance of Study

According to Lantolf (2006) without private speech language acquisition is not likely to occur. It is a part of the process of learning and has a critical role in shaping and organizing the human mind, the belief is that a good understanding of the cognitive process would be useful to support and improve the problem solving, by investigating the effect of private speech as something that has an instructional value for learning a foreign language among Iranian intermediate EFL learners, awareness raises about the role, benefits and the uses of private speech in EFL classes and specially in domain of learning and teaching grammar. On the other hand, research on private speech use might be a good pedagogical resource to help EFL learners to develop their interlanguage, as well as it serves language learning, additionally search for best methodology which results in the best learning outcomes is one of the main concerns for teachers in language teaching classes, maybe the findings of this study help teachers to promote self- regulatory among language learners in their classrooms.

It is hoped that this study will discover how effective languaging is in teaching conditional sentences and hopefully the ESL lecturers will consider using this approach in teaching grammar when it can best benefit their learners.

Statement of the Purpose

The purpose of the study was to find the effect of private speech using on the performance of the mentioned grammatical concept in immediate and delayed post test procedures in intermediate learners, and, in other words to find the role of languaging in grammar development among Iranian intermediate EFL learners. The other purpose of this research was to find the Iranian Intermediate EFL learners’
attitudes toward the lanaguaging program in which their first language was a tool to learn foreign language and they experienced some type of autonomous learning. In other words its purpose was to understand how Iranian intermediate language learners use private speech to gain dominance over a grammatical item.

Research Question
In order to understand the role of languaging in grammar development of Iranian EFL learners, this study aims to answer these questions:
1. Does languaging lead to a better development of L2 grammar in short term as compared with deductive grammar instruction?
2. Does languaging lead to a better development of L2 grammar in short term as compared with inductive grammar instruction?
3. Does inductive teaching of grammar lead to a better development of L2 grammar in short term as compared with deductive grammar instruction?
4. Does languaging lead to a better development of L2 grammar in long term as compared with deductive grammar instruction?
5. Does languaging lead to a better development of L2 grammar in long term as compared with inductive grammar instruction?
6. Does inductive teaching of grammar lead to a better development of L2 grammar in long term as compared with deductive instruction of grammar?
7. What is the Iranian intermediate EFL learners’ attitude toward the languaging program?

MATERIALS AND METHODS
Participants
The participants of the study were 72, male and female intermediate EFL learners, 42 female and 30 male learners, who were assigned to three groups, each group containing 24 participants, who were selected based on the conventional hierarchy of levels in language teaching system in the relevant institute. Their age was between 14 to 20 and the course book which they studied was Interchange 3.

Instruments
In order to find the role of languaging in grammar development of Iranian EFL learners, these instruments were used: tests (pretest and posttests), pretest to show the homogeneity of participants’ knowledge and posttests to evaluate what they have learned from the treatment stage in short term and long term, each test was a combination of 30 items containing gap filling, error correction and multiple choice items. A time allocation of 30 minutes was also estimated for both tests.

The pre-test and the post-tests were designed to be similar to each other in terms of content, task types, allotted time and numbers of the tasks. For each participant in languaging group, there were 9 explanatory cards containing statements about three kinds of conditional sentences in English, including three diagrams. The participants were also required to be interviewed on the part of the researcher; the qualitative part of the study was conducted through an interview of the participants in languaging group about their attitudes toward the languaging program.

Data Collection Procedure
The study investigated the possible effects of private speech as compared with two other grammar teaching methods on L2 grammar development of Iranian intermediate EFL learners, the study included three homogenous groups, 72 homogenous EFL learners randomly were assigned to one of the three groups with treatments differing among groups, for treatment the researcher used three different methods to teach conditional sentences. The first group received instruction of L2 grammar via languaging, languaging as it has been defined by Swain (2006) is the process of making meaning and shaping knowledge and experience through language (p. 89). In the second group, the teacher taught the conditional sentences deductively, while the third group learned the L2 grammar by the inductive teaching method or the rule-discovery path, in which the participants work out L2 rules by themselves, and the teacher acted as just a facilitator. To assess the depth of learning caused by treatments; the
participants’ retention of acquired structure; a delayed posttest was administered one week later. The first group learned L2 grammar via languaging, which means that the researcher gave the participants the explanation cards. On these cards there were statements and definitions and examples about three types of conditional sentences. The role of the definitions can be viewed as serving a meditational artifact to facilitate the thinking process. The participants were supposed to read the cards aloud for themselves, then the researcher asked each participant to explain what he/she has just read, or wanted them to comment on it aloud, also the researcher could use these expressions to push the participants to verbalize their thinking: ―Could you elaborate on what you have just said?‖ or ―Can you explain what you are thinking?‖ The number and timing of these content-free prompts depended on the languaging behavior of the participants. In order to draw participants’ attention on the structure and activate their verbalization, there were some examples of each type of conditional sentences in which if clauses and main clauses ‘verbs were high lightened, and the participants were asked to explain them.

RESULTS AND DISCUSSION
Since the pretest results showed the homogeneity of participants, the posttest results analysis is presented.

**Immediate Posttest Results Analysis**
The descriptive statistics (table 1) indicated that, in all three groups, there was a difference between the mean scores of the three groups.

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inductive</td>
<td>24</td>
<td>26.13</td>
<td>1.752</td>
<td>.358</td>
</tr>
<tr>
<td>Deductive</td>
<td>24</td>
<td>25.92</td>
<td>1.767</td>
<td>.361</td>
</tr>
<tr>
<td>Languaging</td>
<td>24</td>
<td>27.17</td>
<td>1.633</td>
<td>.333</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>26.40</td>
<td>1.781</td>
<td>.210</td>
</tr>
</tbody>
</table>

To understand whether the difference between the mean scores of the three groups was large enough to be assigned to the effect of independent variable or not and to make these descriptive findings more meaningful, ANOVA was used.

<table>
<thead>
<tr>
<th>Sources of variance</th>
<th>SS</th>
<th>Df</th>
<th>Ms</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>21.528</td>
<td>2</td>
<td>10.764</td>
<td></td>
<td>0.031</td>
</tr>
<tr>
<td>Within groups</td>
<td>203.972</td>
<td>69</td>
<td>2.954</td>
<td>3.644</td>
<td>0.031</td>
</tr>
<tr>
<td>Total</td>
<td>225.319</td>
<td>71</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

The results clearly showed the significant difference between the immediate post-tests inductive group, deductive group and languaging group.

Table 2 gives both between-groups and within-groups sums of squares, degrees of Freedom, F value etc. The sig value (.031) is smaller than P value (.05), (.031<.05), so there is a significant difference among the mean scores on the independent variable (Immediate posttest scores) for the three groups.

**Table 3: POST-HOC tests for immediate posttest**

<table>
<thead>
<tr>
<th>Tests</th>
<th>Groups</th>
<th>Inductive Group</th>
<th>Deductive Group</th>
<th>Languaging Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheffe</td>
<td>Inductive Group</td>
<td>-</td>
<td>S=.916</td>
<td>S=.118</td>
</tr>
<tr>
<td>Deductive Group</td>
<td>M= -.208</td>
<td>-</td>
<td>S=.048</td>
<td></td>
</tr>
<tr>
<td>Languaging Group</td>
<td>M= 1.042</td>
<td>M= -1.250</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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ANOVA just showed the difference, so the Post Hoc test was used to show the source of variance. There are three research hypotheses regarding the short term grammar development.

1. Languaging leads to a better development of L2 grammar in short term as compared with deductive grammar instruction.
   
   Language group (M=1.042) and deductive group (M= -0.208) show different values for M. Since 1.042 > -1.250, so it can be concluded that language in comparison with deductive instruction leads to a better grammar development in short term.

2. Languaging leads to a better development of L2 grammar in short term as compared with inductive grammar instruction.
   
   Since the M value for language group is 1.042 and this value for inductive group is -0.208 and 1.042 > -.208, it is obvious that language leads to a better grammar development in short term.

3. Inductive instruction of grammar leads to a better development of L2 grammar in short term as compared with deductive grammar instruction.
   
   Since The M value for inductive group is -.208, and deductive group's M value is -1.250, and -.208> -1.250. The inductive teaching of grammar leads to a better grammar development as compared with deductive teaching in short term.

Based on the above mentioned hypothesis, in comparison with inductive and deductive instructions, languaging has the best effect on short term grammar development of EFL learners, also inductive instruction has better effect than deductive instruction on short term grammar development.

Delayed Post-Test Results Analysis

To show the amount of differences among the three groups of EFL learners in their long term grammar development, the delayed posttest was conducted one week later.

Table 4: Descriptive statistics for each group’s performance on the delayed posttest

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inductive</td>
<td>24</td>
<td>24.96</td>
<td>2.156</td>
<td>.440</td>
</tr>
<tr>
<td>Deductive</td>
<td>24</td>
<td>23.79</td>
<td>2.167</td>
<td>.442</td>
</tr>
<tr>
<td>Languaging</td>
<td>24</td>
<td>23.25</td>
<td>2.251</td>
<td>.459</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>24</td>
<td>2.277</td>
<td>.268</td>
</tr>
</tbody>
</table>

The descriptive statistics were subjected to one way ANOVA.

Table 5: The results of delayed posttest analysis based on One Way ANOVA test

<table>
<thead>
<tr>
<th>Sources of variance</th>
<th>SS</th>
<th>Df</th>
<th>Ms</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>36.583</td>
<td>2</td>
<td>18.292</td>
<td>38.08</td>
<td>0.027</td>
</tr>
<tr>
<td>Within groups</td>
<td>331.417</td>
<td>69</td>
<td>4.803</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>71</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Post-Hoc Tests were run to identify the source of variances in the results of delayed posttest.

Table 6: POST HOC tests for delayed posttest

<table>
<thead>
<tr>
<th>Tests</th>
<th>Groups</th>
<th>Inductive Group</th>
<th>Deductive Group</th>
<th>Language Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheffe</td>
<td>Inductive Group</td>
<td>-</td>
<td>S=.190</td>
<td>S=.031</td>
</tr>
<tr>
<td>Deductive Group</td>
<td>M= -1.167</td>
<td>-</td>
<td>-</td>
<td>S=.694</td>
</tr>
<tr>
<td>Languaging Group</td>
<td>M= -1.708</td>
<td>M= -.542</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Using the Post-Hoc Tests, the sources of differences were found and the research hypothesis regarding the effect of different treatments on grammar development in long term were answered:
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1. Languaging leads to a better development of L2 grammar in long term as compared with deductive grammar instruction. The M value for languaging (-1.708) is less than M value for deductive instruction (-1.167), it shows that Languaging does not lead to a better development of grammar in long term as compared with deductive instruction, consequently the hypothesis is rejected.

2. Languaging leads to a better development of L2 grammar in long term as compared with inductive grammar instruction. This hypothesis was rejected since the M value for languaging group is (-1.708) less than the M value for inductive group (-.542) and it shows that languaging does not lead to a better development of L2 grammar in long term as compared with inductive instruction.

3. Inductive instruction of grammar leads to a better development of L2 grammar in long term as compared with deductive grammar instruction. This hypothesis is accepted since the results of Post Hoc test show that M value for the inductive group (-.542) is larger than the M value for the deductive group (-1.167), and it shows that inductive group had the best performance in the delayed post test among all groups and inductive teaching leads to a better grammar development in long term as compared to deductive group and languaging group.

As a summary of the whole chapter, the data analyses show that languaging leads to a better development of L2 grammar in short term as compared to inductive and deductive group, and regarding the long term L2 grammar development the inductive instruction leads to a better development of L2 grammar.

In order to find participants’ attitudes toward languaging program, after the third treatment session the languaging group answered to this question: What is your idea about the languaging program? This scale was introduced to participants and they answered based on this scale; SA= Strongly Agree, A= Agree, N= Neither agree nor disagree, D= Disagree, SD= Strongly Disagree, also they were asked to explain their answers at least in one sentence. Their explanations are presented too.

Table 7: Language age group attitudes towards the languageing program

<table>
<thead>
<tr>
<th>Scale</th>
<th>F</th>
<th>Pf</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA</td>
<td>10</td>
<td>%41.66</td>
</tr>
<tr>
<td>A</td>
<td>7</td>
<td>%29.16</td>
</tr>
<tr>
<td>N</td>
<td>4</td>
<td>%16.66</td>
</tr>
<tr>
<td>D</td>
<td>3</td>
<td>%12.5</td>
</tr>
<tr>
<td>SD</td>
<td>0</td>
<td>%0</td>
</tr>
</tbody>
</table>

Table 7 shows that nearly %70 of participant in languaging group had positive attitudes toward the languaging program, one of the reasons was low L2 anxiety, one of the participants said “In other classes I worry about making mistakes when I have to produce L2 forms, but here I talked in my own language, without pressure later I could learn and produce L2 form” or another learner said: “it gave me enough time to concentrate my mind on the subject”. May be Languaging enhanced participants’ self-confidence, one of them defined her reason as: “When I learned L2 forms by myself, I taught I’m a good language learner”. The other positive attitude toward languaging was due to its use as a cognitive tool: “at first when I read the text, it’s easy, but when I explained it for myself, I could find my faults and correct them and as I explained the task for myself, other solutions came in my mind”. Another positive attitude toward the languaging program was due to its effect on participant’s self-evaluation of her native language speaking abilities, she said:”this course was really interesting, I noticed how much I need to learn talking in a way that convey my intended meaning”. Other learners defined their attitudes as an interesting, new and friendly method. Among all participants %16.6 had no idea about using languaging, although one of them said that they had something like this method in school; the teacher wanted them to read the grammar rule and explain it to the class but it was just memorizing the rule but here they think about the grammar deeply, the researcher observed that some learners rushed to finish their analysis during the class. %12.5 of
languaging participants disagreed with the languaging program, one of them said “it’s time consuming” another learner, a shy boy, showed inhibition “I don’t like to talk about what is going in my mind, it’s difficult for me.

Discussion
The finding was consistent with the studies conducted by Swain et al., (2009), Garcia’s (2012) study results, Massari et al., (2013) and Vidal (2010). The findings of this study are in line with the research conducted by Swain et al., (2009), their study through a pretest/ posttest design showed that there is a positive relationship between languaging and learning L2 grammatical concepts. The research findings also proved Garcia’s study results (2012) in which he found languaging a mediation tool that connects thinking and speaking. In his case study, languaging enabled the subject to reach a necessary level of grammar development to complete the L2 grammar task.

Research findings like that of Massari et al., (2013) showed that verbalizing organizes and enhances thinking on the one hand, furthermore and its using develops a deeper understanding of the L2.

Conclusions and Pedagogical Implications
Since knowledge in constructivism is a construct to be pieced together through an active process of involvement and interaction with the environment and inductive grammar teaching method is a learner-centered method in which students are responsible for their learning, in this study inductive group participants were more involved in the learning experience and tended to participate more actively, learning through this kind of instruction lead to a better long term grammar development.

Languaging participants were the best group for short term grammar development because languaging has functions as: paraphrasing, inferencing, analyzing, self-assessment and rereading, self-monitoring,…which activated more mental processing which lead to a better development in short-term grammar development, in languaging explanation cards the rule was presented and students just interacted about the grammar rule, so it lacked the process of discovering the rule, which leads to a the placement of knowledge in long term memory part of the mind.

The research findings addressed in this study have generated several pedagogical implications for language teachers to consider. Based on the major findings, languaging can be introduced into EFL classroom practices and the following pedagogical implications are proposed:

1. The results of the research proved languaging technique as a practical and efficient procedure for teaching grammar. It is hoped that Iranian EFL teachers benefit from languaging technique in their grammar teaching methodology.
2. The research findings indicated the importance of the L1 in the context of L2 learning as a meditational tool; it was used to organize and enhance thinking and developed a deeper understanding of L2 grammar. It is hoped that the findings reported here can also contribute to the body of research into the role and value of L1 use in the context of L2 learning.
3. EFL teachers can be creative in their grammar teaching methodology and use of a combination of languaging and inductive approach simultaneously in order to make use of the advantages of both method, languaging for short term learning and inductive approach for long term grammar development.

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