The Effect of Information vs. Reasoning Gap Tasks on the Frequency of Conversational Strategies and Accuracy in Speaking among Iranian Intermediate EFL Learners

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Abstract—Speaking skills merit meticulous attention both on the side of the learners and the teachers. In particular, accuracy is a critical component to guarantee the messages to be conveyed through conversation because a wrongful change may adversely alter the content and purpose of the talk. Different types of tasks have served teachers to meet numerous educational objectives. Besides, negotiation of meaning and the use of different strategies have been areas of concern in socio-cultural theories of SLA. Negotiation of meaning is among the conversational processes which have a crucial role in facilitating the understanding and expression of meaning in a given second language. Conversational strategies are used during interaction when there is a breakdown in communication that leads to the interlocutor attempting to remedy the gap through talk. Therefore, this study was an attempt to investigate if there was any significant difference between the effect of reasoning gap tasks and information gap tasks on the frequency of conversational strategies used in negotiation of meaning in classrooms on one hand, and on the accuracy in speaking of Iranian intermediate EFL learners on the other. After a pilot study to check the practicality of the treatments, at the outset of the main study, the Preliminary English Test was administered to ensure the homogeneity of 87 out of 107 participants who attended the intact classes of a 15 session term in one control and two experimental groups. Also, speaking sections of PET were used as pretest and posttest to examine their speaking accuracy. The tests were recorded and transcribed to estimate the percentage of the number of the clauses with no grammatical errors in the total produced clauses to measure the speaking accuracy. In all groups, the grammatical points of accuracy were instructed and the use of conversational strategies was practiced. Then, different kinds of reasoning gap tasks (matchmaking, deciding on the course of action, and guessing game) were manipulated in experimental groups during treatment sessions, and the students were required to practice conversational strategies when doing speaking tasks. The conversations throughout the terms were recorded and transcribed to count the frequency of the conversational strategies used in all groups. The results of statistical analysis demonstrated that applying both the reasoning gap tasks and information gap tasks significantly affected the frequency of conversational strategies through negotiation. In the face of the improvements, the reasoning gap tasks had a more significant impact on encouraging the negotiation of meaning and increasing the number of conversational frequencies every session. The findings also indicated both task types could help learners significantly improve their speaking accuracy. Here, applying the reasoning gap tasks was more effective than the information gap tasks in improving the level of learners’ speaking accuracy.

Keywords—Accuracy in speaking, conversational strategies, information gap tasks, reasoning gap tasks.

I. BACKGROUND OF THE STUDY

Accuracy is, needless to say, a critical component to guarantee the messages to be conveyed through the conversations because a wrongful change; say, in the tense of a sentence may adversely alter the content and purpose of the speech.

In the interactional approach, negotiation is an essential part of language learning. According to [1], it is only through interactional adjustments such as negotiating meaning and modifying output that comprehensible input can be gained which is central to second language acquisition.

When there is a misunderstanding in a communication, conversational strategies are applied to remedy this through talk. It consists of a trigger followed by an indicator and a response [2]. An underlying assumption is that tasks which induce higher frequencies of negotiation sequences or of particular conversational strategies (such as recast) are more effective in prompting learning [3].

The ideal situation of language learning for [4] can only be created when learners engage in negotiating conversational strategies exchanges through different types of tasks. He argues that negotiation is moving up and down a given line of thought and logic (as cited in [3]).

II. PURPOSE OF THE STUDY

Speaking form and accuracy represents one of the main targets which EFL learners and teachers tend to achieve and provoke through various techniques and activities. An array of methods could be applied for the betterment of accuracy, yet as the requirements of communicative competence dictate negotiation of meaning based on the context must be the main goal of language instruction. The laborious sound of the task implementation was merely one area of concern in this study, as one of the potential problems to satisfy the principles of communication based on the active role of the learners is to comply with the notion of the corrective feedback whose source is by no means restricted to the teachers who used to operate as the sheer source of knowledge.
An important objective of the study was to investigate if Task Based Language Teaching (TBLT) has the capacity to establish an interactive atmosphere in which the use of conversational strategies could be embedded within the classroom tasks to ultimately arrive at accurate output that involves the provision of useful and consistent conversational strategies from teachers and peers. The study was also in pursuit of introducing the conversational strategies as triggered by the TBLT as a basis for the utilization of negotiation of meaning.

Although there have been lots of studies conducted on conversational strategies involved in negotiation of meaning like [5], [6], [9], there seemed to be a lack of research on the effect of task types on the frequency of these strategies and accuracy in speaking.

The importance of this study relies on understanding how important the role of interaction is in the classroom in improving oral skill stems from the understanding of its main types, which are teacher-learner interaction and learner-learner interaction, where negotiation of meaning and the provision of conversational strategies are emphasized.

The contribution of the study to practice at the classroom level, meanwhile, could remarkably show that the use of conversational strategies would not only result in an increase in negotiation of meaning as the major target of the tasks, but enhance the accuracy in the language performance through the corrective feedback.

III. RESEARCH QUESTIONS

The current study sought to answer the following research questions:

1- Is there any significant difference between the effect of reasoning gap tasks and information gap tasks on the frequency of conversational strategies used in negotiation of meaning among Iranian intermediate EFL learners? 
2- Is there any significant difference between the effect of reasoning gap tasks and information gap tasks on speaking accuracy among Iranian intermediate EFL learners?

IV. PARTICIPANTS

107 Iranian EFL students enrolled in Safir English Institute in Tehran were chosen to participate in this study. All these students (aged 18-30 years) were female intermediate non-native speakers of English.

After the administration of the Preliminary English Test (PET) to assure the participants’ homogeneity, 87 students were selected and 20 students who were not qualified to be part of the analysis were not included in the data obtained from the study.

The participants of this study were selected from intact classes of intermediate students in Safir Institute based on convenient sampling method. The classes were randomly assigned either to a control group or experimental groups. At the end, only the homogeneous students’ scores on pre and posttests were used in the study.

V. INSTRUMENTS

A) Preliminary English Test.  
B) Rating Scale for Speaking of PET. 
C) Rating Scale for Writing of PET. 
D) Pre and Posttest of Speaking Part of PET.  
E) Teaching Materials. 
F) Mobile phone as a recorder.

VI. DESIGN

The design of this study was quasi-experimental. Since randomization was not possible, the 87 homogenous students of the intact classes attended two experimental groups and one control group participated in the study.

VII. PROCEDURE

This study was carried out over 15 weeks of intensive courses in the summer and fall of 2015. The students attended the classes three times a week, and each session lasted for an hour and half.

VIII. OPERATIONALIZATION

Every construct of the study had to be changed into a variable and then every component of those variables had to be examined in order to be measured. The frequency of conversational strategies and accuracy in speaking were the dependent variables and measured in this study which had to be operationalized besides language proficiency of the students.

A) To operationalize English proficiency of the participants, a PET was used and scored.
B) Six feedback types described by [8] include explicit correction, metalinguistic feedback, elicitation, recasts, clarification requests, and repetition among which the last three were chosen as the conversational strategies to be applied in the study.
C) Accuracy in speaking was operationalized as the number of error free clauses divided by the total number of clauses multiplied by 100 (Foster and Skehen, 1996 cited in [9]).

IX. PILOT STUDY

Prior to the main study, a pilot study was conducted with 20 students who were the same in characteristics with the participants of the main study. At first, they were trained on how to use conversational strategies while doing speaking activities. Then, in three sessions, both information gap tasks and reasoning gap tasks were implemented to check the feasibility and practicality of the treatments. In each session participants were asked to work on one type of information gap tasks (e.g. restoring an incomplete map, guessing game and spot the difference) and reasoning gap tasks (e.g. deciding what course of action is best, matchmaking, and working out a time table) similar to those that were supposed to be implemented in the main study.
X. MAIN STUDY

When the feasibility of the treatments was confirmed, the main study was conducted.

A) The PET proficiency test was administered to all students attended the intact classes to determine homogeneous participants.

B) The speaking part of PET which was administered to the participants was also used for the pretest of the study.

C) Intact classes were randomly assigned into three groups undergoing almost similar instructional processes. However, information gap tasks and reasoning gap tasks were also applied in experimental groups.

XI. TREATMENT SESSIONS

A. Experimental Group I

In the first two sessions in all experimental classes, the teacher/researcher introduced conversational strategies to the students. From third to fourteenth session, after working on the teaching points and some relevant exercises, the participants had to deal with a kind of reasoning gap tasks (working out a time table, deciding what course of action is best, and matchmaking). To resolve communication misunderstandings, they used different conversational strategies such as repetition, recast and clarification request. After recording all the conversations in the classroom, the teacher transcribed the recordings and counted the number of conversational strategies and recorded them on a checklist.

B. Experimental Group II

Students were briefed on how and why to use conversational strategies in the first and second sessions. Then in the third to fourteenth sessions, the students were asked to accomplish a kind of information gap tasks (restoring an incomplete chart, guessing game, spot the differences, and ordering sentences into stories). To deal with the misunderstandings, the students relied on using different types of conversational strategies; namely, repetition, recast and clarification request. The teacher used a voice recorder to keep track of all the conversations in the class. She did the transcriptions at home and kept a record of the number of conversational strategies every session.

C. Control Group

The control group shared the same procedure with the two experimental groups in terms of the topics, teaching points, conversations/speaking activities, and using conversational strategies. However, they did not receive any treatment in the form of tasks whether reasoning gap or information gap.

XII. POSTTEST ADMINISTRATION

The last session of the course, which was the fifteenth session devoted to the posttest administration in all groups.

XIII. DATA COLLECTION

1) The data on homogeneity of students were collected by PET.

2) The data on the accuracy in speaking skill of the participants before and after treatments were gathered through pretest and posttest of speaking.

3) The data on the frequency of the used conversational strategies were gathered through counting them in the transcription of the recorded class conversations of the sessions.

XIV. SCORING PROCEDURE

PET enjoys the scoring procedure as instructed by the test guide. Twenty five percent of the total score was dedicated to the listening part. Each of the 25 listening questions was worth one mark with 25 percent of the total mark. Each of 35 reading questions was worth one mark with 25 percent of the total mark. In part one of the writing, there were five questions; each was worth one mark. Part two of writing was scored out of five and part three was scored out of 15 with the 25 marks and 25 percent of the total mark. Finally, speaking had four parts with the 25 marks and 25 percent of the total mark. The total score on PET was 100.

The learner’s score on the speaking part of the PET was again used as a speaking pretest to assess the accuracy of the student’s output. Here, all the recorded files for pre and posttest were transcribed. The accuracy of speaking was scored based on the ratio of the error free clauses to the total number of clauses. Two raters scored all the pre and posttest transcriptions for the inter-rater reliability estimation.

The frequency of conversational strategies was counted in the transcriptions of the conversations records in each session of all groups.

XV. DATA ANALYSIS

The following calculations were performed to collect the data required by the research hypotheses presented in this study:

- Pearson to check the inter-rater reliability of writing of PET, pre and posttests and speaking of PET.
- Descriptive Statistics of PET.
- Descriptive Statistics to compare pretests and posttests.
- Factor analysis to check the construct validity for the PET.
- KMO to check the sampling adequacy.
- Bartlett’s test to check lack of identity.
- Chi square to compare the group’s use of conversational strategies with each other.
- Paired sample T-test for the effect of treatment on speaking accuracy.
- ANOVA to see the differences among the three groups in pre and posttest.
- Post-hoc Scheffe’s test to detect the differences among groups.

Statistical computations were all conducted by the use of the Statistical Package for Social Sciences (SPSS) 21.0. Descriptive statistics and frequency tables and graphs were also necessary to be provided.
XVI. THE RESULTS OF THE STUDY

A. Test of the First Null-Hypothesis

There is no significant difference between the effect of reasoning gap tasks and information gap tasks on the frequency of conversational strategies used in negotiation of meaning among Iranian intermediate EFL learners.

An analysis of chi-square was run to compare the information gap and reasoning gap groups’ use of conversational strategies used in negotiation of meaning. Based on the results displayed in Table I, the reasoning gap group used the conversational strategies (N = 808, Residual = 42.5) more than the information gap group (N = 723, Residual = -42.5).

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<thead>
<tr>
<th>Frequency of Conversational Strategies Used in Reasoning Gap and Information Gap Groups</th>
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<tbody>
<tr>
<td>Observed N</td>
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<tr>
<td>Information</td>
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<tr>
<td>Reasoning</td>
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<td>Total</td>
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The results of analysis of chi-square in Table II ($\chi^2 (1) = 4.71, p = 0.030, r = 0.055$ representing a weak effect size) indicated that there was a significant but weak difference between the reasoning gap and information groups’ use of conversational strategies. Thus, the first null-hypothesis was rejected. The results should be interpreted cautiously due to the weak effect size value of 0.05.

B. Test of Second Null Hypothesis

A one-way ANOVA followed by post-hoc Scheffe’s tests were run to compare the information gap, reasoning gap and control groups’ means on the posttest of speaking accuracy in order to investigate the second null-hypotheses posed in this study.

Based on the results displayed in Table III, it can be claimed that the reasoning gap group (M = 86.89, SD = 6.18, 95% CI [84.58, 89.20]) had the highest mean on the posttest of speaking accuracy. This was followed by the information gap (M = 71.49, SD = 7.53, 95% CI [68.63, 74.36]) and the control (M = 54.29, SD = 7.84, 95% CI [51.24, 57.33]) groups.

<table>
<thead>
<tr>
<th>Descriptive Statistics for Posttest of Speaking Accuracy by Groups</th>
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<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>Information Gap</td>
</tr>
<tr>
<td>Reasoning Gap</td>
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<tr>
<td>Control</td>
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<td>Total</td>
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The results of the oneway ANOVA in Table IV, (F (2, 84) = 148.18, p = 0.000, $\omega^2 = 0.772$ representing a large effect size) indicated that there were significant differences between the three groups’ means on the posttest of speaking accuracy.

The results of the post-hoc Scheffe’s tests indicated that; the reasoning gap group (M = 86.89) significantly outperformed
the information gap group (M = 71.49) on the posttest of speaking accuracy (MD = 15.39, p = 0.000). Thus, it can be concluded that the second null-hypothesis as there was no significant difference between the effect of information gap tasks and reasoning gap tasks on accuracy in speaking among Iranian intermediate EFL learners was rejected.

**XVII. DISCUSSION**

The results showed that both of the null hypotheses were rejected. That is to say, applying the reasoning gap tasks and information gap tasks could both make significant improvements in the frequency of conversational strategies through negotiation. In the face of the improvements, the reasoning gap tasks were shown to have a more significant impact on encouraging the negotiation of meaning and increasing the number of conversational frequencies every session.

The findings also indicated that conversational strategies and both information gap tasks and reasoning gap tasks could assist the learners to significantly improve in their speaking accuracy. Here, applying reasoning gap tasks outperformed the information gap tasks in improving the level of speaking accuracy comparing the scored obtained in posttests in all groups. The following section tends to provide a comparison between the findings of the present study and the other related studies in the literature.

One of the findings of the study was the effect of information gap tasks on frequency of conversational strategies used in negotiation among learners. This was in agreement with what [10] and also [11] suggested that two-way information gap tasks that require information exchange can lead to plentiful negotiation. The results were not, however, supported by [12], [13], who found no difference triggered by the effect of task type.

The other finding of this study was the effect of information gap tasks and reasoning gap tasks on improvement in speaking accuracy that was parallel with the results of the study by [14] reporting an accuracy and fluency improvement in speaking within the careful online planning condition that is framed by TBTL. The same positive effect, as suggested by the study, was reported by [15] who depicted that using tasks could enhance the use of grammatical features through communication.

The study revealed that providing feedback in the form of conversational strategies could enhance the performance of the learners when facing with the grammatical activities. The findings are backed by [16], supporting that direct corrective feedback based on TBTL can be effective to promote the acquisition of specific grammatical features.

The study found a significant difference between the effects of tasks on speaking accuracy. This was in agreement with the results of McGrath and [17] who found differences in the effect of tasks on accuracy. As shown by [18], tasks were successful in enhancing the negotiation in laboratory and not the classroom environment. This is in an opposite line with the findings here that showed the tasks could improve negotiation in the classroom context as well.

The findings of the study also showed the effect of recast as one of the conversational strategies on the improvement of accuracy in speaking. This outcome is consistent with the findings of a study by [6] that focused on the significant effects of task-based teaching and grammatical activities in the class on short-term development of grammatical rules.

Clarification request was proposed by the results of the study to be significantly increased in frequency in negotiation of meaning through using reasoning and information task types. As the speaking accuracy was also shown to be improved with the presence of the task learning potentials and the conversational strategies, the findings of the study could be compared to those of Pica, Holliday, Lewis, and [7], who found that learners were more likely to modify their output by making it more grammatical in response to clarification requests. The improvement in accuracy through clarification request was also investigated and confirmed by [19], [20], who also showed that when used for maintaining discourse and negotiation of meaning, conversation strategies could enhance learners' communicative ability compatible with the results of the study.

The findings of the study also revealed that conversational strategies, like recast, were able to help learners improve the metalinguistic items as the aspects of the accuracy. Reference [21] found that teachers preferred to use more indirect conversational strategies such as recast. He argued that it is more natural for the teacher to use indirect strategies, as this marks errors as unimportant and less embarrassing. This was somehow similar to the findings of this study, as the students tended to show a preference for the use of clarification strategies and recast more than repetition.

The nature of tasks used in classrooms have been found to have a significant impact on negotiation, for example, [11] showed that two way information gap tasks that require information exchange can lead to plentiful negotiation. The same finding was found by this study, as the reasoning gap tasks were significantly more effective in both speaking accuracy and the use of conversational strategies by the students.

**XVIII. CONCLUSIONS**

The study concluded that both types of tasks (reasoning gap and information gap) could encourage the learners to actively participate in negotiation of meaning. Theoretically, this could be traced in [4] who defines tasks with the potential to focus on authentic language use and elicit a higher amount of negotiation of meaning than teacher-fronted lessons. Different natures of classroom tasks provide different opportunities for interaction in the classroom.

The founder of task-based teaching, [4], has also emphasized the importance of tasks on learning a second language. It facilitates communication and helps the students interact in order to carry something out in the classroom. In teacher-centered classrooms, the teacher is the focus of communication and the students communicate whatever the teacher tells them to. However, tasks set the students free from the chains of teachers’ dictation and orders.
As concluded in the present study, the impact of two different types of tasks on the frequency of conversational strategies paved the way for a higher level of communication through negotiations. This can be supported by [1] who believes that direct conversational strategies like recast enable learners to identify contrast between correct and incorrect forms, and [7] who concluded that indirect conversational strategies like repetition and clarification request have a facilitative role for pushed output and make learners modify their output.

The study underlined the importance of interaction and negotiation of meaning through using tasks. With the same perspective, [1] states that in the interactional theory, the growth of language proficiency is promoted by face-to-face interaction. The conversational interaction facilitates language acquisition because it connects input (what learners hear and read); internal learner capacities, particularly selective attention; and output (what learners produce) in productive ways. This can be stated as a conclusion for this study as well. As the students were exposed to interaction via different types of tasks, they significantly developed their speaking accuracy and, as a result, were able to assist their language acquisition.

This study concluded that when students had to perform different types of tasks in conversations, they could significantly improve their speaking accuracy. This can be supported by [22] who believes that interactional adjustments or conversational strategies make input comprehensible, and comprehensible input promotes acquisition, thus interactional adjustments promote acquisition.

The present study put a great emphasis on the task types and primacy of meaning through interaction. In the same manner, [23] believes that modified interaction could be a source of potential learning. However, tasks, considering their interactive nature, demand for meaning negotiation and linguistic modification, lead to a statistically significant increase in students’ speaking and language acquisition. These theoretical perspectives support the conclusion of the current study.

This study concluded that the use of conversational strategies and accuracy in speaking enhanced in the groups that used tasks. In parallel with the conclusion, [24] develop a framework to describe the cycle of corrective feedback. “It starts with a ‘trigger’, i.e. the utterance or part of an utterance that creates a problem of understanding, an ‘indicator’ which indicates that something in a previous utterance was not understood, a ‘response’ to the indicator, and finally a ‘reaction to the response’, which is optional” ([9], p.225). This procedure could be clearly seen in the students’ interaction and in the increase of their usage of conversational strategies in this study. There was a mistake which needed error correction and the students had learnt to use the conversational strategies, and so one was applied which resulted in a reaction to the strategy.

Based on the study, it can be concluded that the use of conversational strategies in negotiation of meaning led to an increase in speaking accuracy as a part of grammatical competence, which is one of the main elements of communicative competence as defined by [25], [26], as grammatical knowledge of syntax, morphology, phonology and how this system is used in authentic situation. In order to understand the context of a conversation, complete comprehension must be gained.

One of the main aims of this study was to use information gap tasks and reasoning gap tasks in order to increase the level of meaning negotiation in the language classroom. According to [3], a task is a work plan that requires learner to give primary attention to meaning and to make use of their own linguistic resources. This supports the conclusion of the current study as implementing these two types of tasks was shown to cause a significant increase in language use, considering the students’ increase in their speaking accuracy and their use of conversational strategies.

REFERENCES


