A Comparative Study of the Effects of Meaningful Cognitive Task Types and Form-focused Tasks on Oral Interaction among Iranian EFL Learners

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Abstract

The present study investigated the impact of meaningful cognitive task types—specifically information gap, opinion gap, and reasoning gap tasks—alongside form-focused tasks, such as pre-scripted role-play, on oral interaction among Iranian intermediate EFL learners. Following a rigorous sample selection process and adherence to ethical research standards, the researcher conducted interviews with teacher participants via social media platforms, including WhatsApp and Telegram, to facilitate participation. To enhance the credibility and dependability of the interview data, low inference descriptors and member-checking techniques were utilized. The findings indicated a significant increase in oral interaction among the learners, particularly in terms of the Initiation-Response-Feedback (IRF) pattern, following the implementation of both meaningful cognitive tasks and form-focused tasks. Furthermore, the study demonstrated that these task types not only enhance learners' enjoyment of EFL oral interaction but also contribute to increased participation rates. The research highlighted some implications for the ELT community.

Keywords: Cognitive task types, EFL learners, Form-focused tasks, Oral interaction

1. Introduction

The main purpose of learning a language is to use it in communication in its spoken or written forms. In teaching language in its formal form at school, classroom interaction is a key to reaching that goal. Interaction is the collaborative exchange of thoughts, feelings, or ideas between two or

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more people, leading to a mutual effect on each other. An educational system is required to facilitate independent learning and improve language skills in fixable and interactive ways (Bagheri Masoudzade & Fatehi Rad, 2022). Through interaction, the learners can test their communicative abilities by exchanging information with the teacher or their classmates (Sato, 2006). An optimal classroom interaction can encourage the students to communicate with others in a real situation (Yu, 2008). In Ayunda's et al. (2021) view, students are more active in being involved in the interaction inside the classroom.

Effective teaching and the role of the teacher have long been recognized as crucial factors in successful language-learning endeavors (Karvandi et al., 2024). Different assumptions about the nature of language representation and its promotion have led to different teaching communicative methods (Rafiei Sakhaei et al., 2023). According to Yildiz (2023), the communicative aspect of language acquisition has become increasingly important in response to the demands of the 21st century. The shift towards communicative language teaching led to "student-centered classes so that learners can acquire the language as the result of communication, interaction, and negotiation of meaning" (Lightbown & Spada, 2001, p. 66). Therefore, in order to create more optimal conditions to improve learners' participation in oral interactions in the classroom, task-type activities have been proposed (Richards & Rodgers, 2014; Ellis, 2000). Oral interaction implies that students interact with others by speaking in class, answering and asking questions, making comments, and taking part in discussions (Zare-ee & Hejazi, 2017). The meaning-based activities are classified according to three basic activity types, which include information gap, reasoning gap, and opinion gap activities, and the most important type of form-based activities is the pre-scribed role-play tasks (Namaziandost et al., 2019). Research has shown that opinion gap tasks have had a successful role in promoting negotiations (Guangwei, 2003; Marashi & Amirabadi, 2017).

Nowadays, English language learning for non-native speakers has encountered several challenges stemming from various factors, particularly the widespread influence of globalization (Karvandi et al., 2024). Achievements of task-based language teaching methods especially in English courses in a globalized world demand communicative tasks to be appropriately designed (Sholeh et al., 2022). In the Iranian context, the educational system is centralized; the same textbooks are taught all over the country; oral communication is not taught; English is a very small portion of the curriculum; the amount of language exposure is limited, and there is no practice time (Masoumpanah & Talebinejad, 2013). Since there

is not a unified opinion about the role of task types in improving the learners' knowledge of the second language, particularly oral skills, it is of great importance to investigate the effect of the various kinds of tasks in order to fill the gap between different researches. Therefore, in the present study, four various types of tasks (meaningful cognitive task types: information gap task, opinion gap, and reasoning gap tasks or form-focused tasks: pre-scripted role-play task) are studied comparatively.

Ellis (2014) distinguishes between form-focused and meaning-focused tasks in language learning. He categorizes meaning-focused tasks into four distinct approaches: (1) pedagogic, (2) rhetorical, (3) cognitive, and (4) psycholinguistic. According to Ellis, the success of task performance is contingent upon the achievement of communicative goals, suggesting that meaning-focused tasks facilitate unpredictable interactions among speakers.

Complementing this framework, Gardner and Miller (1999) provided a pedagogic classification of tasks that encompasses the four primary language skills: reading, writing, listening, and speaking. Their classification serves as a foundation for integrating the task construct into traditional linguistic knowledge, specifically vocabulary and grammar. However, this pedagogic perspective presents a potential risk; tasks may lose their authentic nature and resemble mere exercises targeting discrete language components. Despite the insights provided by previous research, there remains a gap in understanding how different types of tasks specifically impact oral interaction among learners. This study aims to investigate the nuances of task types and their effectiveness in promoting interaction, thereby filling this gap in the literature. This study addresses the following research questions:

1. Do meaningful cognitive task types (information gap task, opinion gap, and reasoning gap tasks) lead to more oral interaction among Iranian intermediate EFL learners?
2. Do form-focused tasks (pre-scripted role-play tasks) lead to more oral interaction among Iranian intermediate EFL learners?

2. Methodology
2.1. Participants

The participants of this study consisted of two groups. The first group included 6 Iranian female English teachers. They were selected from Jihad Institute in Ilam, Iran, through convenience sampling based on accessibility considerations. As a general definition, "Convenience sampling involves using available cases for a study. Using a large

undergraduate class, using the students in your classroom as a sample, or taking volunteers to be interviewed in survey research are examples of convenience sampling" (Ary et al., 2010, p. 156). They had English teaching experience in private institutes for more than ten years. They were B.A. and M.A. holders in different branches of the English field. They were in the 40-65 age range. This group was interviewed to extract their perceptions of different task types and the effect of task types and their features on oral interaction before and after the study. The participants were made aware of the purpose of the study. In addition, they were assured that the data would be kept confidential and their responses to the interview would not affect their job status.

The second group of participants included 120 Iranian female intermediate learners of the above teachers (i.e., one class of each teacher) in the form of six classes, each consisting of 20 learners. They were studying English at the Jihad Institute, Ilam, Iran. They were selected through convenience sampling. Their age range was 18-29. Their first language was Persian. It is worth noting that, the students took part in the Oxford Placement Test (OPT) as a proficiency test. It was done to ensure that all the students participating in the research were at roughly the same level of English language proficiency. All the students were administered the proficiency test in a single testing session. Regarding the obtained scores, all were selected as the intermediate ones. The consent of the learners was also taken for participation in the study to observe the research ethics. Moreover, they were ensured anonymity and confidentiality of their personal information. Additionally, the potentials and objectives of the present study were explained to them at the beginning of the study.

2.2. Procedure

At the study's outset, the sample was selected from the target population through convenience sampling. The consent of the participants was taken by the researchers considering the research ethics, at first. Then, the researchers explained the potential advantages as well as the purposes of the study to them. Moreover, all the participants were told that their participation was completely voluntary and there was no obligation. Additionally, anonymity and confidentiality of their personal information were ensured.

After sample selection and observing the issues related to the research ethics, the interviews were taken by the researchers from the teachers through social networks, including WhatsApp and Telegram applications, for the convenience of the interviewees. In this stage, this interview was

done to extract the teachers' perceptions of different task types and the effect of task types and their features on oral interaction before the treatment period. Each interview was taken individually in English. There was no time limit for the interviews so that the interviewees could reveal their full perceptions. All interview sessions were videotaped for transcription and further analysis. Each interview lasted from 20 to 45 minutes. Then, the video-recorded interviews were transcribed to create verbatim written data for analysis. Then, the transcribed version was subjected to coding (open, axial, and selective) to identify the recurring patterns, themes, categories, and sub-categories among the obtained data.

For credibility and dependability of interview data, low inference descriptors and member checking were used. Here, using low-inference descriptors means presenting direct quotations from the interviews, which allows the reader to experience the participants' world by seeing the actual words of the respondents (Ary et al., 2010).

Using member checks involves the researchers' sharing her interpretations of the data with the participants to avoid any miscommunication, identify inaccurate interpretations, and show courtesy to the participants by letting them read what has been written about them. In member checks, the researchers get feedback from the participants about the study's findings (Ary et al., 2010). Then, the treatment started, wherein all six groups participated in 10 regular classes at Jihad Institute, Ilam, Iran. However, as a program designed for this study, three classes benefited from meaningful cognitive task types (information gap task, opinion gap, and reasoning gap tasks), and three others from form-focused tasks (pre-scripted role-play task) within the last 30 minutes of each class session. In a more specific sense, in the first 60 minutes of class sessions, all six classes were exposed to the mainstream routine educational materials provided in English intermediate classes of Jihad Institute, wherein *Top-Notch Book* is taught.

The students were divided into groups of two persons to be more specific, following Guangwei (2003), to provide the learners with an information gap task (i.e., a technique in language teaching where students are missing information necessary to complete a task or solve a problem and must communicate with their classmates to fill in the gaps). One student was given a picture and asked to describe it to another student, who created a drawing from the description.

The discussion was used as an example of an opinion gap task (i.e., an activity requiring students to raise questions and topics that also help students' creative thinking). That is, the teacher introduced a topic. Then, the students discussed the topic, exchanging their opinions, feelings,

preferences, etc., about the given topic. The teacher usually tried to listen to the students' discussions, helped them solve their grammatical problems, told them the words and expressions they needed, and helped them continue the discussions. As an instance of a reasoning gap task (i.e., as an activity that involves deriving some new information from given information through processes of inference, deduction, and practical reasoning), the students were given a topic, and they were required to speak about it by providing reasons while speaking about the given topic.

The learners were divided into pair groups to expose the students to the pre-scripted role-play task (i.e., an activity that gives students the opportunity to assume the role of a person or act out a given situation). Then, they were provided with audio-recorded materials to which they were to listen. Next, they were asked to act out and play the role of each individual according to the tape. After the end of the treatment period, all six classes were again observed and video-recorded for three consecutive sessions by the researchers as a non-participant observer. Finally, the interviews were again administered to the researchers through social networks, including WhatsApp and Telegram applications, to extract the teachers' perceptions of different task types and the effect of task types and their features on oral interaction after the treatment period. The interview questions and procedures followed for the interview were the same as those used for the pre-treatment interview.

2.3. Data Analysis

First, the researchers transcribed classroom interaction data and audio-recorded interview data video recordings. Then, the content of the transcriptions of interviews was qualitatively analyzed using coding procedures (i.e., open coding, axial coding, and selective coding) to identify the recurring patterns, themes, categories, and sub-categories among the obtained data. In this regard, the first step was reading and re-reading the transcribed data to organize them (Ary et al., 1972). After organizing the data, the next stage was codifying the raw data and reducing them into manageable codes. In this stage, a considerable number of codes emerged. Once the coding of the transcripts was completed, the next step was assigning similar codes under specific categories. Two more colleagues double-checked to ensure that the codes belonged to the same categories. At last, selective coding was employed to generate a grounded theory by interpreting the interrelationships that emerge among categories in axial coding (Creswell & Creswell, 2017). The steps above led to the emergence of the main themes.

Moreover, the qualitative content analysis of the transcribed version of the video recordings of classroom interaction data was done based on the IRF model for each learner individually. Also, the qualitative results of this stage were quantified so that the interaction achievement of the learners could be measured numerically and compared before and after the treatment phase. That is, in each class session, those students who were successful in classroom interaction were given a score of 1, and those who were not successful got a score of 0, based on the IRF model. To ensure inter-rater reliability considerations, the researchers asked a paid colleague to re-analyze the transcribed interaction data.

3. Results

In an attempt to answer the research questions, descriptive statistics were run on observation data before and after the study. The results are shown in Tables 1 and 2.

Table 1. *Descriptive Statistics for Oral Interaction Before the Study*

Group	N	Frequency of orally interactive learners	Percentage of orally interactive learners
Meaningful	60	13	21.66
Form-Focused	60	10	16.66

Results of Table 1 show that 13 learners from the meaningful tasks group were successful in oral interaction considering the IRF pattern before the study. They constituted 21.66% of the whole group. Moreover, 10 (16.66%) learners from the form-focused tasks group were orally interactive based on the IRF pattern before the study.

Table 2. *Descriptive Statistics for Oral Interaction after the Study*

Group	N	Frequency	Percentage
Meaningful	60	32	53.33
Form-focused	60	37	61.66

As shown in Table 2, 32 learners, who constituted 53.33% of the whole group, from the meaningful tasks group were successful in oral interaction based on the IRF pattern after the study. Furthermore, 37 learners from the form-focused tasks group, equal to 61.66% of the whole group, were orally interactive based on the IRF pattern after the study.

Clearly, the number of orally interactive learners in both meaningful and form-focused task groups increased from before the study to after the study. To check the significance of this difference, a Chi-square test was run for both groups, whose results are indicated in Tables 3 and 4.

Table 3. *Results of Chi-square Test for Meaningful Tasks Group*

Pearson Chi-Square	180.02
Asymp. Sig. (2-sided)	0.01

As shown in Table 3, there was a significant difference (p<0.05) between the frequency of orally interactive learners in the meaningful tasks group before and after the study.

Table 4. *Results of Chi-square Test for Form-focused Tasks Group*

Pearson Chi-Square	112.80
Asymp. Sig. (2-sided)	0.03

As indicated in Table 4, there was a significant difference (p<0.05) between the frequency of orally interactive learners in the form-focused tasks group before and after the study. Moreover, in the qualitative phase, the observation data showed that after the implementation of the meaningful tasks and form-focused tasks, the chain of IRF was more successfully preserved in the interaction between teacher and learners in the classroom. That is, before the implementation of different task types, when the teacher asked a question, most of the learners were silent and did not answer the question. Naturally, there was no room for the next element in the IRF chain including the teacher's feedback. In sum, the interaction was stopped at the stage of initiation and did not continue most of the time.

However, after the implementation of meaningful and form-focused tasks, when the teacher asked a question (initiation stage), some learners volunteered to answer the question. The teacher selected a learner to answer the question. Then, the learner provided the answer (response stage). Finally, the teacher provided feedback on the answer given by the learner (feedback stage). In this way, IRF was successfully maintained as a sequence of teacher-student-teacher turn-taking in the classroom. This shows the positive effectiveness of different types of tasks on oral interaction of the learners in terms of IRF pattern.

4. Discussion and Conclusion

It was revealed that more oral interaction was observed among Iranian intermediate EFL learners in terms of IRF pattern after the application of meaningful cognitive task types and form-focused tasks. In line with this study, Eskandari et al. (2024) revealed that productive task types lead to a higher gain of knowledge among EFL learners. Wang et al., (2024) also

observed positive effects of task complexity on L2 learners' writing performance. Moreover, Omar et al. (2021) showed the effect of various task types on EFL learners' oral interaction. The same finding was unraveled by Lopez and Willis (2004) and Saud and Bhandari (2020) when they argued that their research findings have revealed significant improvements in learners' oral participation as a consequence of being provided with different task categories. Also, in a study by Abbasian and Chenabi (2016), the effect of form-based and meaningful tasks on EFL learners' speaking abilities was explored and it was revealed that the speaking abilities of learners were positively influenced by such types of tasks. Furthermore, this finding is consistent with AlKuwaiti et al.'s (2018) finding that implementing tasks has a significant effect on EFL learners' speaking performance. Moreover, this finding is in line with Keshta and Harb's (2013) study on the impact of tasks on the communication skills of EFL learners which showed that they can significantly impact EFL learners' communication skills. The studies conducted by Ayad et al. (2008), and Kazemi and Ghoraishi (2012) also provided evidence for the effectiveness of form-based and meaningful tasks on the oral participation of learners.

As a justification for this finding, the arguments made by Fotovatnia and Khaki (2012) and Rani and Kumar (2017) can be referred to according to which different task types increase learners' motivation by impacting their EFL learning. Moreover, in line with this argument, Boers et al. (2014) reported the significant effects of task implementation on accurate learning of English and in turn on their motivation. This increased motivation can lead to enhanced interaction among them.

The researchers believe that the negotiation of meaning and form manipulation done by learners in the process of doing tasks increases their autonomy and self-confidence (as revealed by the results of the present study). This in turn can make them more eager to interact in the class. Indeed, the existing literature convinces us to accept that the mediating role of autonomy and self-confidence in the effectiveness of form-based and meaningful tasks can be enumerated as a justification for the findings. Another justifying argument relevant in this regard can be the enhanced agency of learners and their control over their learning, whose enhancement is among the mottos and missions of TBLT, as a result of task implementation. When learners feel like agents and see themselves as having a dominant role in controlling their own learning, their tendency to participate in different forms of class activities and classroom interaction is probably corroborated. This finally leads to significant improvements in their oral interaction. Finally, as revealed by the present

study, the implementation of form-based and meaningful tasks leads to significant improvements in learners' enjoyment of EFL oral interaction. When they enjoy more oral interaction, it is natural and reasonable that they participate significantly more in oral interaction. In other words, enjoyment of an activity is significantly associated with the frequency of doing that activity. When enjoyment of oral interaction is increased, participation in oral interaction is increased.

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