

# **Representational Gestures and Tense-Aspect Improvement in L2 Grammar**

**<sup>1</sup>Masoud Yousefzadeh  
&  
<sup>2</sup>Mohammad Aghajanzadeh**

English Language Department  
Payame Noor University – Rasht, Iran

*email: <sup>1</sup>masud.yousefzadeh@gmail.com, <sup>2</sup>teachingutopia@yahoo.com*

**Abstract:** The English tense-aspect system is one of the most prominent and challenging areas of English language grammar for both EFL teachers and learners. The hardships in teaching and learning this system have led many researchers to look for and come up with new approaches and models for tackling them. Likewise, this study proposes representational gestures, which utilize a bunch of movements of the hands as conceptual metaphors related to time to represent the tenses and aspects of English language, as a facilitating tool for both EFL learners and teachers. Representational gestures have been devised to make up for the shortcomings of timelines. Two groups of learners participated in this study which took part in ten 45-minute intensive grammar sessions of instruction: the first group was taught the tenses and aspects through RGs. The second group, however, underwent the conventional instruction (timelines) to learn the same grammatical points. An analysis through 2-Proportion Test revealed that the first group outperformed the second regarding tense/aspect use in a number of ways.

**Keywords:** input enhancement, representation gesture, tense-aspect

## **INTRODUCTION**

There has been a growing interest in the roles of gesture in second language acquisition studies in the last couple of decades. However, empirical studies should be conducted to investigate the way teachers and learners put gestures to use in their interactions in L2 classrooms (Matsumoto & Dobs, 2016).

This study contributes to associating conceptualization of tenses and aspects with representational gestures in teaching the tense-aspect system and provides pedagogical implications related to teaching this system in EFL classrooms. The focus of this study is on the tense-aspect system which, according to Matsumoto and Dobs (2016), is one of the most difficult grammatical concepts for teaching and learning English partly due to cross-cultural and cross-linguistic differences in the conceptions of time.

## **REVIEW OF LITERATURE**

### **Gestures in the Context of L2 Classroom**

McCafferty and Stam (2002) investigated the functions of gestures used by L2 learners interpersonally (communicative) and intrapersonal (cognitive) in contexts other than that of the classroom. It was indicated that using gestures enhances communication and assists comprehension with respect to interactions that take place between a non-native and a native speaker of English. It was also found that some types of gesture, such as iconic and abstract deictic gestures and beats seem to function in a self-regulatory manner when participants resort to the spatio-motoric channel for thinking and externalizing the linguistic structure of the L2 (see McNeill & Duncan, 2000, for cognitive functions of gesture in detail, as cited in Matsumoto and Dobs., 2016, p. 5). Some other studies (e.g., Alibali, Heath, & Myers, 2001; Bavelas, Gerwing, Sutton, & Prevost, 2008) have demonstrated that speakers use gestures for two reasons: their own internal benefit, and to communicate with others. Visibility and dialogue are the two determining factors of the functions of gestures.

Different gestures, which have various functions, have been observed in the contexts of the L2 classroom. For example, Allen (2000) made a list of the nonverbal behaviours employed by a Spanish high school teacher as he observed different emblems, illustrators or iconics, and deictics, all of which served as prominent components in his teaching. Gestures and other nonverbal behaviours are the basic and integral elements of the pedagogical repertoire of teachers; they are also essential in producing comprehensible input (Lazaraton, 2004; Wang & Loewen, 2015). Enhanced understanding of L2 discourse from teacher gesture and other nonverbal behaviour is reported by students (Allen, 2000; Sime, 2008). It has been shown through experimental research that teacher gesture impacts student comprehension greatly. A study conducted by Sueyoshi and Hardison (2005) indicated that students who were exposed to lectures along with either gestures alone or gestures, as well as facial cues, outperformed their peers who were merely exposed to the audio recording on a listening comprehension test.

The significance of examining interactions, which include gestures accompanying speech in an L2 context, is incrementally recognized. Zhao (2007) reported that ESL learners, in a longitudinal study of a composition class, imitated the metaphoric gestures of their teacher in a creative way. He further noted that this creative imitation seems to assist them in their appropriation and internalization of the conventions in academic writing.

The dialogic use of gesture also plays an important role in demonstrating and remediating students' understanding of L2 vocabulary (Belhiah, 2013; Smotrova & Lantolf, 2013, as cited in Matsumoto and Dobs., 2016, p. 5). Smotrova (2014) confirmed these findings in a longitudinal study in a beginner-level ESL classroom, as he emphasized the important instructional and interactional functions of gestural catchments (recurrent gestures that replicate similar forms and meanings) among instructors and their students. Peltier and McCafferty (2010) noticed in their study of Italian foreign language classrooms that teachers and students mirror each other regarding emblematic gestures, intervening the incorporation of an Italian identity. In summary, gesture can be a significant mediational tool functioning to assist L2 learners in their development in addition to speech (e.g., Lantolf & Thorne, 2006).

Even though extensive research on gestures and language learning has concentrated on the lexical explanation context, the body of literature investigating the

utilization of gestures in teaching different aspects of grammar is increasing (Hudson, 2011; Nakatsukasa, 2013; Rosborough, 2011; Smotrova, 2014; van Compernelle & Smotrova, 2014).

### **Difference in Perception of Time in Different Languages and Cultures**

English tense-aspect system is one of the most difficult, most challenging grammatical concepts in teaching and learning. One of the reasons for this may be cross-linguistic and cross-cultural differences and how users of different languages conceptualize time. In fact, speakers of almost all languages show a tendency to conceptualize time horizontally along a sagittal axis. In this system, future actions and events are shown in front of the speaker and events related to the past are shown in the back. However, in general, speakers of any language tend to utilize a couple of metaphorical timelines rather than a fixed one. Sometimes they show time along a transversal axis (left to right) (Matsumoto and Dobs, 2016). For instance, English and Spanish speakers might conceptualize time from left to right horizontally or maybe from front to back (Torralbo, Santiago & Lupianez 2006; Boroditsky, 2011). Speakers of Mandarin, however, may conceptualize time horizontally, along a sagittal and horizontal axis, as well as vertically, where past events are represented as shàng, or up, and future events are represented as xià, or down (Boroditsky, Fuhrman, & McCormick, 2011). Therefore, when conceptualizations of time differ between a learner's L1 and their L2, there is a need for them to reconceptualise how they view time so as to handle various time-space metaphors that are essential to the L2 (Matsumoto and Dobs., 2016).

### **Grammar in Language Teaching and Learning**

Teaching language was considered the same as teaching grammar for many years. It was a commonly held belief that language was mainly constituted from grammar rules and also that the knowledge of those rules would be what learners needed to acquire the language (Nassaji and Fotos, 2011). With the rise of communicative teaching approaches in the 1970s, grammar teaching came to be seen undesirable. Teachers were discouraged from considering grammar instruction as fundamental to language and a necessity (Nassaji and Fotos, 2011). It was also claimed by researchers that the impact of teaching grammar on the grammatical development of learners was so little and that it would not result in the development of their communicative competence which was why it had to be removed from ESL/EFL classrooms (Krashen, 1981, 1985; Krashen & Terrell, 1983). Some others even claimed that teaching grammar was not only of no use, but it was also harmful to learning.

However, research in the field of second language acquisition (SLA) has recently resulted in a reconsideration of the significance of grammar. A great many of the researchers have come to believe that teaching grammar should not be ignored in ESL/EFL classrooms. Now, language teaching professionals are also very well aware of the importance of grammar instruction and the significant role it plays in both teaching and learning. A number of reasons have led to the re-evaluation of the role of grammar: In the first place, the once-cherished hypothesis that would view language learning possible without any degree of consciousness has recently been found to be theoretically flawed (Schmidt, 1995, 2001; Sharwood Smith, 1993). Second, research has proved that

the approaches to teaching which mainly focus on meaning without a focus on grammar are inadequate (Lapkin, Hart, & Swain, 1991; Swain, 1985). Third, research in second language acquisition (SLA) has shown that instructed language learning influences the rate and ultimate level of second language acquisition significantly. Research has demonstrated that form-focused instruction, when incorporated in a meaningful communicative context, is greatly effective. Though many questions still remain to be answered as to how to teach grammar effectively, and more importantly how to merge a focus on grammatical forms with a focus on meaning in EFL/ESL classrooms which has been referred to as "the central dilemma" in language teaching by Richards (2002).

### **Tenses and Aspects**

With respect to the difficulty related to learning tenses and aspects, the interference of L1 is neither to be underestimated nor is it to be overgeneralized. Neimeir and Reif (2008) highlight the problem which is related to aspects, particularly L1s with a different set of aspects or those with none are cases in point. Lee and Huang's (2004) study with Chinese English learners, in contrast, L1 doesn't seem to play a major role. Collin's (2007) study illustrated that French learners of English tended to make aspectual errors more frequently in comparison with the aspectual errors made by Japanese learners. He further argues that the reason may lie in the French compound past form which competes with the English simple past. However, he (Collin, 2007) believes that L2 learners generally make tense and aspectual errors regardless of their L1 interference.

As long as L1 is not necessarily an interfering factor, it could be used for its similarities to L2. In her study, Brooks-Lewis (2009) showed that her adult English students' sentences enjoyed awareness of the cross-linguistic similarities by incorporating them into their target language.

### **Input Enhancement**

Robinson's (1997) study which has utilized Visual Input Enhancement can be taken into account as one of the many existing techniques for consciousness rising. An increasing body of visual input enhancement (VIE) researches (Sharwood Smith, 1991-1993; Jourdenais, 1998; Leow, 2001) has indicated that it is possible to make input more perceptible and comprehensible for L2 learners through utilizing enhancement techniques by means of typographical signals (boldfacing, underlining, capitalization, italicization are some instances of textual VIE). This is how input enhancement-embedded texts are utilized to perceptually signify a targeted form. Schmidt (2001) suggests rationales that confirm these claims in his noticing hypothesis: In order for learners to process input for acquisition by L2 learners, it must be noticed first. Enhancing input by using typo-graphical techniques raises the chance for the input that has become visually salient to be observed and hence, establishes a trace in learners' long-term memory.

According to Sharwood Smith (1993), input is the "potentially processable language data which are made available, by chance or by design, to the language learner." Since language learners use it "in order to construct a mental representation of the grammar that they are acquiring," it is a vital constituent of the L2 acquisition (VanPatten, 1996). Sharwood Smith (1991) proposed the term "input enhancement" to discuss the role of grammar in L2 teaching. According to Sharwood Smith (1991), input enhancement is

“the process by which language input becomes salient to learners” (p. 118). To put it another way, input enhancement can be seen as an approach to L2 teaching, and it has to do with an intentional attempt to enhance the target form input by changing its appearance visually. He suggests several techniques that could be used to boost input saliency, such as boldfacing, colour coding, utilizing error flags, stress, intonation and gestures, and pointing out/explaining construction through the use of metalinguistic terminology. For instance, grammatical morphemes in English (3rd person singular s) can be bold-faced, italicized or underlined. Making use of one or all of the mentioned techniques leads to directing language learners' attention towards the targeted form in L2. This type of input enhancement is called “visual or textual enhancement” (Sharwood Smith, 1991-1993). He also argues that one reason why directing learners' attention towards the formal features of an L2 has been seen as a negative approach to grammar teaching is due to the fact that formal teaching has commonly been connected with “the pedantic giving and testing of rules and lists of vocabulary items” (Sharwood Smith, 1981, p. 160). This has to be altered as there exist many ways (as has been mentioned previously) of directing students' attention towards features of the L2 needing no detail involvement of “metalinguistic discussion”.

## **METHODOLOGY**

All things considered, the present study has investigated the role of representational gestures in improving productive knowledge of tense and aspect. Having this in mind, the following research question was formulated: Is there any significant difference between grammatical achievements of students who learn tenses and aspects through representational gestures and those of students who learn it through the conventional method? The respective hypothesis was as follows: There is not any significant difference between grammatical achievements of students who learn tenses and aspects through representational gestures and those of students who learn it through the conventional method.

### **Participants**

This study was conducted among the students of Idea Language Centre in Rasht, Iran, all of whom studied and learned English as EFL.

The participants, who were selected through convenient sampling, consisted of 50 female students at intermediate level. They were young adults who were mostly postgraduate students; their age ranged from 20 to 32. Thirty students were chosen among them based on their test scores. Since this study required the speaking ability of participants to be at the same level, the IELTS speaking test was administered to all of the students. Participants whose band scores were between 5 and 6 were chosen and others were excluded. Then, the 30 chosen learners were randomly divided into two groups of 15, one experimental and one control group.

### **Instruments**

All instruments which were used in the study are described in more details in the following:

**IELTS speaking test.** The IELTS Speaking test takes 11-14 minutes long to administer and is in three parts. In the first part, students answer questions about themselves and their family. They have a longer discussion about the topic introduced in Part 2. The third part is a follow up of the second part taking the discussion into more depth (the scoring criteria is provided in the appendix).

**Supplementary materials.** The experimental group was provided with some supplementary materials in the form of GIF (Graphics Interchange Format) featuring the researcher himself, containing the representational gestures along with a bunch of examples of each tense/aspect introduced by each GIF.

**Audio recorder.** In order to be able to further analyse the speaking that took place during the sessions and in the pre- and post-tests, an audio recorder was utilized.

**Tense/aspect example booklet.** A booklet containing many examples of each tense/aspect in the three forms of declarative, negative and interrogative.

## **Procedure**

To begin with, although all students were studying in an institute at intermediate level, in order to ensure their speaking ability being at the same level, 50 students participated in the IELTS speaking test.

The speaking test consisted of three parts each consisting of three questions. Participants whose band scores were between 5 and 6 were chosen (the scoring criteria is provided in the appendix), and the rest were excluded. Then, 30 chosen learners were randomly assigned into two groups of 15, one experimental and one control group.

The IELTS speaking test was utilized in the pre-test. This being the case, students' errors in tense/aspect use were counted as an indicator of their competence in using the tense-aspect system. The whole process was audio recorded. Once the pre-test had been administered, the instructional phase started. However, before starting the instructional phase, an orientation session was held for each group separately to shed light on the importance of grammar in learning a new language for the participants. In the experimental group, the participants were familiarized with the representational gestures. In order for the participants in this group to conceptualize the four aspects in each tense, they were provided with several supplementary materials in the form of GIF containing the representational gestures along with a bunch of examples of each tense/aspect introduced by each GIF (See the respective figures below).

During the instructional treatment in the experimental group, representational gestures were used by the teacher to teach the tense-aspect system, while in the control group, the conventional means of teaching tense-aspect system (timelines) was used for teaching this system. After ten 45-minute intensive sessions of tense-aspect instruction, all of the participants took the post-test which, like the pre-test, was an IELTS speaking test; again the frequency of students' errors in the application of tenses/aspects were counted as an indicator of their competence in tense-aspect system use. The whole process was audio recorded. It is worthy of notice that the speaking scores were achieved once

inter-rater reliability had been ensured. In the end, the data of the post-test were analysed. It is worthy of note that this study was specifically conducted on the tense-aspect system and therefore, did not consider grammatical errors such as subject-verb agreement.

### ***Teaching the tense-aspect system in the two groups***

As mentioned earlier, Representational Gestures were utilized in the experimental group to serve the purpose of the experiment. Being the objective of the experiment, the course focused primarily on the tense-aspect system. The results of the pre-test had already proved that the learners had problems in using as common a tense and aspect as the present simple and its progressive aspect. This led the teacher to start with the Present Simple.

Both groups were provided with a booklet that contained many examples of each tense/aspect in the three forms of declarative, negative and interrogative. In the experimental group, the teacher started by introducing the simple aspect of the present tense, namely present simple. As he explained the how and why of using this tense/aspect, instead of using the conventional timelines, he used the Representational Gesture allocated for the present simple (the learners had already been provided with the RGs in the form of GIF). Each example would accompany the related RG. He would show verbs and their occurrence frequencies or their forms (aspects – simple/progressive/perfect/perfect progressive) through RGs. Learners were also requested to use the related RG as they made sentences and/or answered the questions. (This is exactly where the main differences between the RGs and the timelines lie: Making tenses and aspects more concrete and tangible for learners and giving them an opportunity to both use the tense and aspect verbally and relate it to a specific gesture all of which lead to a better consolidation of the usage of the tenses. Whereas, hardly any student is asked to or even is willing to draw timelines as a later practice, not to mention the ease and simultaneity of the usage!)

The same process was applied in teaching present progressive, simple past, simple future, future progressive, present perfect, present perfect progressive, future perfect and future perfect progressive. The last 20 minutes of each session in both groups was allotted to speaking during which, the teacher would use the cue cards he had already prepared for this purpose. He would pick out a card and hand it to a random learner. The learner was then asked to go and sit in the chair that was so placed in the front centre of the class that the one who sat in it could not see her classmates (with her back facing her classmates in a u-shaped classroom seating) and talk about the topic while covering the requested information on the cue card (She was given a minute to have a look at the questions on the cue card before starting the speaking. She could also look at the cue card while speaking. However, she was not allowed to take notes). The following is an example of what appeared on a cue card to elicit present tense and its simple aspect:

#### **JOB**

Talk about your job and include the following information in your speaking:

- What it is like;
- How often, where, with whom, how much, how long and why you work;

- Your salary, enough or not;
- Your father's/best friend's job;
- Your dream job
- An ideal job in your country.

During the monolog, other learners were asked to perform the correct tense/aspect RG whenever they heard the speaker use a wrong tense and/or aspect (Verbal correction was not allowed! No correction took place by the teacher during the monolog. The teacher took notes whenever the speaker used a tense/aspect wrongly or whenever he saw a learner correct the speaker using a wrong RG. He would do this in a way that didn't distract the speaker.) After the monolog, the teacher and other learners would start a conversation with the speaker and ask her some follow-up questions (Nonverbal correction through RGs took place by the teacher to allow learners to self-correct the wrongly used tenses/aspects in their utterances.) After the conversation, the teacher would discuss and correct the speaker's monolog's errors or those of other learners' (during the monolog) with regard to tenses and aspects. (The time limit would allow up to three learners to complete their speaking processes.)

Since the RGs make use of four or so fixed gestures for the four aspects in all three tenses, learners are able to associate forms (aspects) with their functions more easily through the RGs; the teacher used this to illustrate the similarities and differences among the aspects of the three tenses. No treatment was provided for past perfect and Past perfect progressive as the use of more common tenses/aspects was the target of the study. Nonetheless, the teacher provided treatment for future perfect and the future perfect continuous to elaborate on the similarities and differences between the two tenses and aspects (i.e. present perfect vs. future perfect and present perfect continuous vs. future perfect continuous whose aspects utilize the exact same gestures).

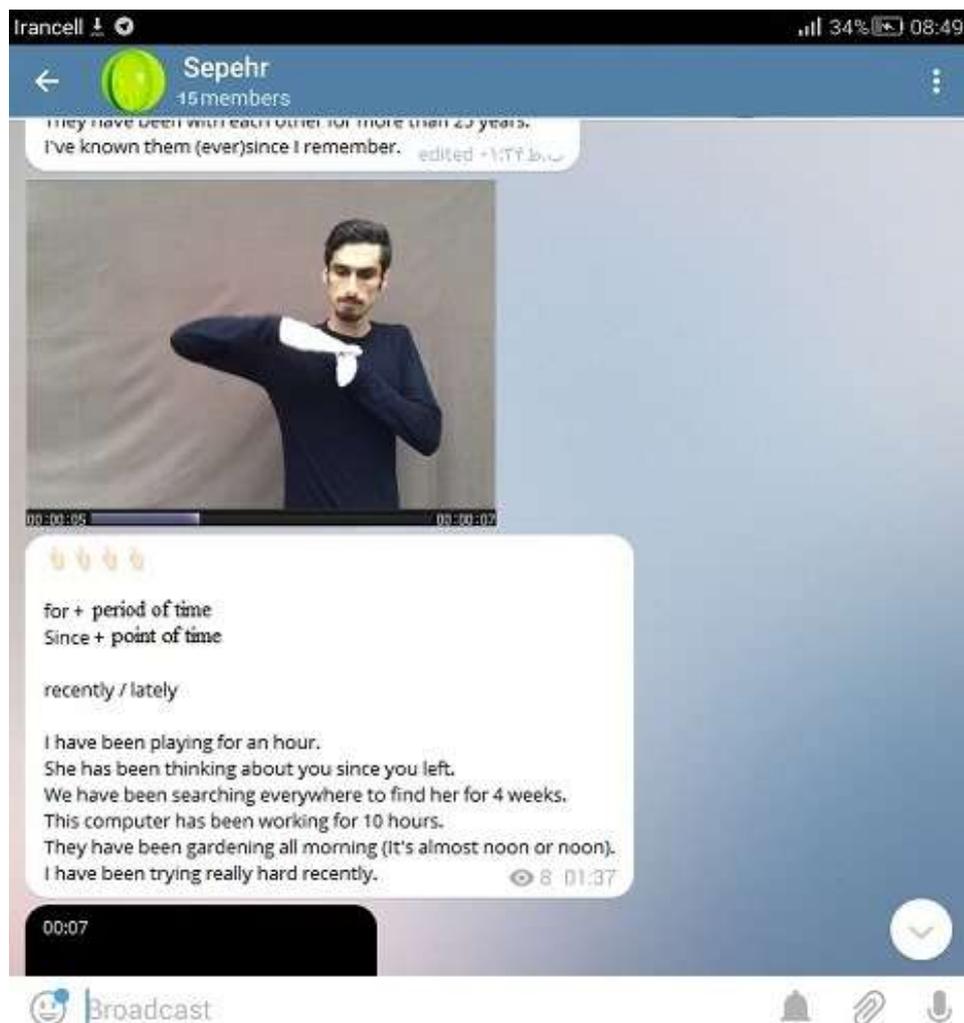
With the introduction of more tenses/aspects in the form of RGs, it was easier for the teacher now to correct learners' errors in the use of tenses, and more commonly aspects, non-verbally and through RGs during the speaking time. Peers were also encouraged to perform the correct tense/aspect RG upon detecting a mistake on the part of their classmates.

Also in the control group, the teacher started from the simple present; however, this time he utilized timelines as a teaching aid to teach the tense-aspect system. He drew a timeline on the whiteboard and explained the how and why of using this tense/aspect. He would show verbs and their occurrence frequencies or their forms on the timeline. The timeline remained on the board and was pointed to and used whenever needed. The same process was applied to teach present progressive, simple past, simple future, future progressive, present perfect, present perfect progressive, future perfect and future perfect progressive. The teacher also used timelines to show the similarities and differences of the tenses/aspects.

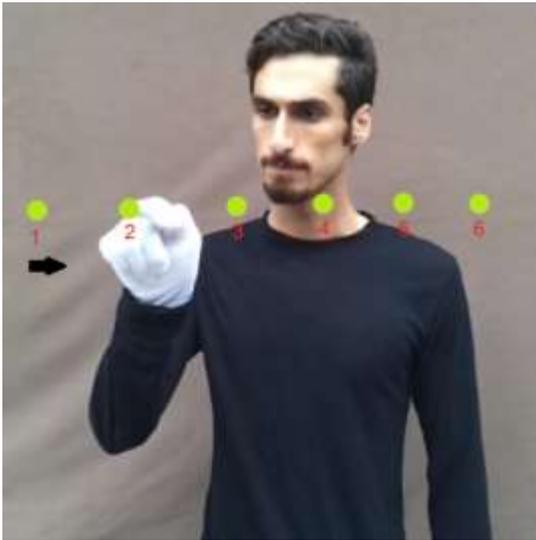
As was said previously, in this group also, the last 20 minutes of each session was allotted to speaking. Just like in the experimental group, the teacher would utilize the cue cards he had already prepared for the purpose of eliciting tenses and aspects. He would choose a card and hand it to a random learner. The learner was then asked to go and sit in the chair that was placed in the front centre of the class in a way that the one sitting in it

could not see her classmates (with her back facing the classmates in a u-shaped classroom seating) and talk about the topic while covering the requested information on the cue card (She was given a minute to have a look at the questions on the cue card before starting the speaking. She could also look at the cue card while speaking. However, she was not allowed to take notes).

During the monolog, other learners were asked to take notes in their notebooks whenever they heard the speaker use a wrong tense and/or aspect (Verbal correction was not allowed! No correction took place by the teacher during the monolog; though, he would also take notes whenever the speaker used a tense/aspect wrongly. He would do this in a way that didn't distract the speaker.) All of the corrections remained for after the speaking so as not to interrupt the flow of the speaking. At this point, students were first asked to discuss the tense/aspect errors they had found and, if possible, go to the board and show the correct tense/aspect on a timeline. Teacher correction came last in exactly the same fashion. (The time limit would barely allow two learners to complete their speaking process in the control group).



*Figure 1: The instructor using the RGs to Teach the Present Perfect Progressive*



*Figure 2: Present Simple*



*Figure 3: Present Perfect*



*Figure 4: Past Perfect*



*Figure 5: Past Progressive*



Figure 6: Simple Future

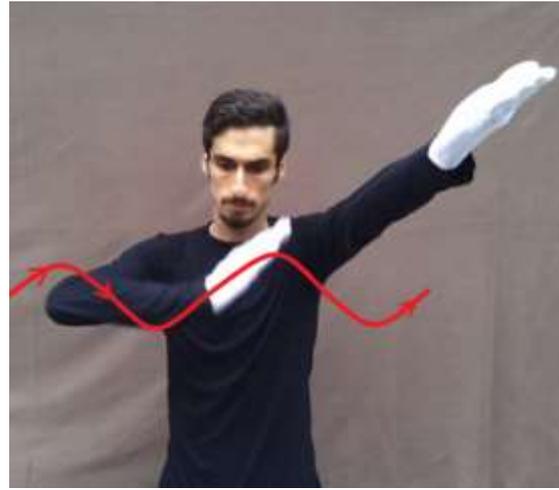


Figure 7: Future Progressive

## RESULTS

### Pre – and Post-Testing in the Two Groups

The participants of each group took a speaking test before and after the experiment. Their errors in tense and aspect use were counted. The results are shown in Tables 2 and 3. The following is a guideline on how the errors were counted:

- \* Ted is a teacher for three years. (A case of incorrect aspect, yet correct tense use)
- \* Ted have eaten his food. (A case of correct tense and aspect used, despite of lacking subject-verb agreement).
- \* Ted was a teacher for 10 years so far. (A case of incorrect tense and aspect use)
- \* Ted had been a teacher for 10 years so far. (A case of incorrect tense, yet correct aspect use)
- Ted has been a teacher for 10 years. (A case of correct tense and aspect use)

### The Estimation of Homogeneity

In order to ensure the homogeneity of the two groups, an IELTS speaking test was administered to select the students whose speaking ability was at the same level. Thirty students whose scores were between  $\pm 1SD$  were selected and the rest were excluded. The average band score of the selected participants was 5.5. They were then randomly divided into 2 groups. In order to ensure the homogeneity of the two groups regarding making errors, error rates in the five items of *past simple*, *future simple*, *present simple*, *present perfect* and *present perfect continuous* were compared before providing the treatment using 2-Proportion Test (It is worthy of notice that since the three items of *present continuous*, *past continuous* and *future continuous* were not used by the participants in the pre-test, comparing these items in the two groups was practically not possible).

Table 2: Errors in Tense/Aspect Use in the Pre- and Post-test of the Experimental Group

Experimental Group	Pre-test			Post-test		
Tense/Aspect	Total used	Errors		Total used	Errors	
		Tense	Aspect		Tense	Aspect
1. Simple Present	139	-	1	154	-	-
2. Present progressive	2	-	-	2	-	-
3. Present perfect	22	12	9	18	1	3
4. Present Perfect Continuous	5	-	5	7	-	2
5. Past Simple	81	10	-	73	1	-
6. Past Continuous	1	-	1	2	-	-
7. Past Perfect	NO TREATMENT PROVIDED					
8. Past Perfect Continuous	NO TREATMENT PROVIDED					
9. Simple Future	6	3	-	12	-	-
10. Future Continuous	1	-	1	2	-	-
11. Future Perfect	-	-	-	-	-	-
12. Future Perfect Continuous	-	-	-	-	-	-

Table 3: Errors in Tense/Aspect Use in the Pre- and Post-test of the Control Group

Control Group	Pre-test			Post-test		
Tense/Aspect	Total used	Errors		Total used	Errors	
		Tense	Aspect		Tense	Aspect
1. Simple Present	151	-	1	142	-	-
2. Present progressive	-	-	-	1	-	-
3. Present perfect	19	12	5	16	4	3
4. Present Perfect Continuous	3	1	2	4	-	2
5. Past Simple	63	8	-	68	4	-
6. Past Continuous	-	-	-	2	-	1
7. Past Perfect	NO TREATMENT PROVIDED					
8. Past Perfect Continuous	NO TREATMENT PROVIDED					
9. Simple Future	7	5	-	8	2	-
10. Future Continuous	-	-	-	1	-	1
11. Future Perfect	-	-	-	-	-	-
12. Future Perfect Continuous	-	-	-	-	-	-

Table 4 shows the results of comparing the two groups regarding tense in the pre-tests through 2-Proportion Test. According to the results, the number of errors in tenses in the five items of *present simple*, *past simple*, *future simple*, *present perfect* and *present perfect continuous*, separately and together, were quite close to each other. Hence, according to the obtained significance levels, there was not any significant difference between the two groups (sig.<0.05). It should be mentioned that in *present simple*, no error was detected and consequently, it was not possible to calculate the significance level of this item in the results of the pre-test of the two groups.

Table 4: The comparison of Error Rates in Tense Use in the Pre-test of the Two Groups

	Error rate of tense in Experimental	Error rate of tense in Control	Significance level
Past Continuous	-	-	-
Past Simple	0.123	0.127	0.949
Simple Future	0.500	0.714	0.421
Simple Present	0.000	0.000	-
Future Continuous	-	-	-
Present perfect	0.545	0.631	0.574
Present Perfect Continuous	0.000	0.333	0.221
Present progressive	-	-	-
Total Item	0.099	0.107	0.764

Figure 8 shows error rates in tenses in the experimental and control groups in the pre-test.

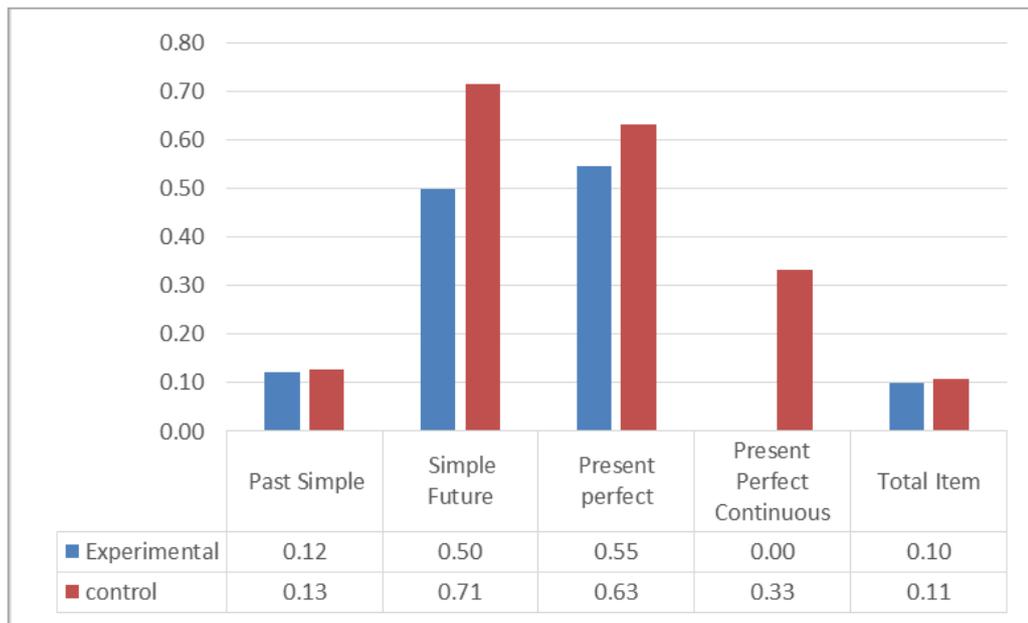


Figure 8: Error Rates in Tense in the Pre-tests

Table 5 shows the results of comparing the two groups regarding aspect in the pre-tests using 2-Proportion Test. According to the results, error rates in aspects in the five items of *present simple*, *past simple*, *future simple*, *present perfect* and *present perfect continuous*, separately and together, were quite close to each other. Hence, according to the obtained significance levels, there was not any significant difference between the two groups (sig.<0.05). It should be mentioned that in present simple, no error was detected and consequently, it was not possible to calculate the significance level of this item in the results of the pre-test in the two groups.

Table 5: The Comparison of Error Rates in Aspect Use in the Pre-test of the Two Groups

	Error rate of aspect in Experimental	Error rate of aspect in Control	Significant level
Past Continuous	-	-	-
Past Simple	0.000	0.000	-
Simple Future	0.000	0.000	-
Simple Present	0.007	0.007	0.953
Future Continuous	-	-	-
Present perfect	0.409	0.263	0.316
Present Perfect Continuous	1.000	0.667	0.221
Present progressive	-	-	-
Total Item	0.059	0.033	0.160

Figure 9 shows error rates of aspects in the experimental and control groups in the pre-tests.

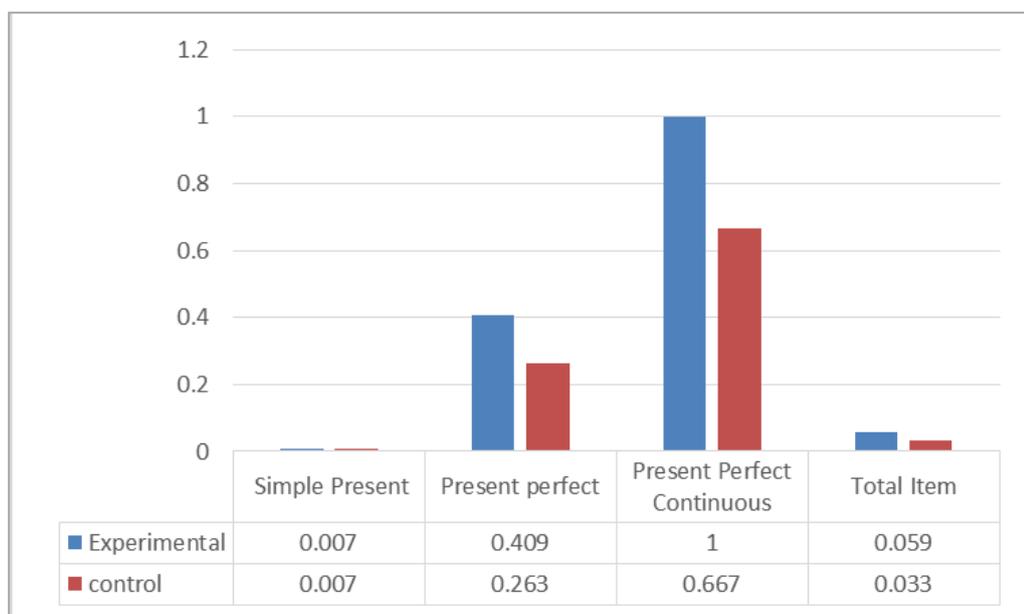


Figure 9: Error Rates in Aspect in the Pre-tests

According to the results of tables 4 and 5, there was not any significant difference in the error rates of the experimental and control groups regarding tense and aspect before the experiment. This indicates that the two groups were homogeneous regarding making errors. Therefore, it could be expected that whatever results obtained after the post-test should be related to the treatment.

### Comparing Error rates in the Pre- and Post-test of the Two Groups

In this section, error rates of the items used in the pre-test of each group were compared with error rates of the items used in the post-test of the same group. However, before doing this, the correlation of the error rates between the pre- and post-tests was measured. According to the observations so far, a correlation was expected to exist between the errors rates of the pre- and post-tests in each group. In order to investigate this, Pearson and Spearman correlation coefficients are provided separately for each group in Table 6.

Table 6: Pre- and Post-test Correlation in Each Group

Group	Pearson		Spearman	
	correlation	Sig.	correlation	Sig.
Control	0.893	0.042	0.791	0.111
Experimental	0.676	0.066	0.750	0.032

As can be seen in Table 6, in both control and experimental group, Pearson and Spearman correlation coefficients show a high correlation between error rates of the pre- and post-tests. So, according to the obtained level of significance, except in one case, all correlation coefficients were significant below 0.1 (Sig.<0.1).

At this point, the error rates of the items used in both the pre- and post-tests were compared. Table 7 compares the error rates of the experimental group regarding tense and aspect through 2-Proportion Test. As can be seen, in all cases (the items in which error occurred in both the pre- and post-test), the error rates in the post-test are significantly lower than the error rates in the pre-test. So, according to the obtained level of significance, except in one case (aspect in the *simple present*), the error rates in the post-test are significantly lower than the error rates in the pre-test (sig.<0.01). Also in Total Item, in both tense and aspect, the error rates in the post-test are significantly lower than the error rates in the pre-test.

Table 7: The Comparison of the Error Rates in Tense and Aspect Use of the Experimental Group

Experimental group	Tense			Aspect		
	Error rate in pre-test	Error rate in post-test	Significant level	Error rate in pre-test	Error rate in post-test	Significant level
Past Continuous	0.000	0.000	-	1.000	0.000	-
Past Simple	0.123	0.014	0.005	0.000	0.000	-
Simple Future	0.500	0.000	0.014	0.000	0.000	-

Simple Present	0.000	0.000	-	0.007	0.000	0.316
Future Continuous	0.000	0.000	-	1.000	0.000	-
Present perfect	0.545	0.055	0.000	0.409	0.167	0.076
Present Perfect Continuous	0.000	0.000	-	1.000	0.256	0.000
Present progressive	0.000	0.000	-	0.000	0.000	-
Total Item	0.097	0.007	0.000	0.066	0.019	0.007

Table 8 compares the error rates in tense and aspect use in the control group using 2-Proportion Test. As can be seen in Table 8, regarding aspects, there was not any significant difference in the items (items in which error occurred both in the pre- and post-test) of the pre- and post-test. However, there are some exceptions regarding tenses. For example, between the errors rates of *simple future*, *present perfect* and in *total item*, the difference between the error rates in the pre- and the post-test was significant.

Table 8: Comparison of Error Rates in Tense and Aspect Use of the Control Groups

Control group	Tense			Aspect		
	Error rate in pre-test	Error rate in post-test	Significance level	Error rate in pre-test	Error rate in post-test	Significance level
Past Continuous	-	0.000	-	-	0.500	-
Past Simple	0.127	0.059	0.179	0.000	0.000	-
Simple Future	0.714	0.250	0.043	0.000	0.000	-
Simple Present	0.000	0.000	-	0.007	0.000	0.316
Future Continuous	-	0.000	-	-	1.000	-
Present perfect	0.631	0.250	0.014	0.263	0.187	0.590
Present Perfect Continuous	0.333	0.000	0.221	0.667	0.500	0.652
Present progressive	-	0.000	-	-	0.000	-
Total Item	0.107	0.041	0.005	0.033	0.029	0.799

### Comparing the Control and Experimental Groups after the Experiment

In this section, the error rates in tense and aspect use of the participants in the post-tests of the two groups were compared with each other. Table 9 shows error rates of the items used in both groups, (the items which contained errors) through 2-Proportion Test.

As can be seen in Table 9, when each item was considered separately, there was not any significant difference between the error rates of the two groups (Sig.>0.05). When all of the items were considered together, there was not any significant difference between the error rates of the two groups. Only in tense and when all of the items are considered together, a difference was noticed. This being the case, the error rate in the experimental group was 0.007 whereas the error rate in the control group was 0.041 which was significantly greater than the error rate in the experimental group.

Table 9: Error Rates of the Items Containing Errors Used in Both Groups

	Tense			Aspect		
	Error rate in experimental	Error rate in control	Significance level	Error rate in experimental	Error rate in control	Significance level
Past Continuous	0.000	0.000	-	0.000	0.500	0.157
Past Simple	0.014	0.059	0.153	0.000	0.000	-
Simple Future	0.000	0.250	0.102	0.000	0.000	-
Simple Present	0.000	0.000	-	0.000	0.000	-
Future Continuous	0.000	0.000	-	0.000	1.000	-
Present perfect	0.055	0.250	0.108	0.167	0.187	0.874
Present Perfect Continuous	0.000	0.000	-	0.256	0.500	0.479
Present progressive	0.000	0.000	-	0.000	0.000	-
Total Item	0.007	0.041	0.014	0.019	0.029	0.442

## DISCUSSION

The present study aimed at investigating the effect of a brand new way of teaching tenses and aspects, Representational Gestures (RGs), on EFL learners' use of the tense-aspect system in their speaking and comparing its result with that of the conventional method (timelines). It was found that the group which was taught the tenses and aspects through RGs outperformed the one which received normal instruction in quite a few ways. In the experimental group, almost in all items, the error rates in the post-test were significantly lower than the error rates in the pre-test in both tense and aspect. Whereas in the control group, except in two items (*simple future, present perfect*) in tense, there was not any significant difference between the error rates of the pre- and the post-test. Also when comparing the error rates in the post-tests of the two groups, in tense and when all of the items were considered together, the error rate in the experimental group was 0.007 whereas the error rate in the control group was 0.041 which was significantly greater than the error rate in the experimental group (sig.<0.05).

According to Sharwood Smith (1993), input is the language data that is potentially processable made available to the language learner by chance or by design. Because language learners use it to construct a mental representation of the grammar which they are acquiring, it is an essential constituent of the L2 acquisition (VanPatten, 1996). RGs are consistent with Sharwood Smith's claim in that they create easy-to-remember mental images of the grammatical points they present.

It seems that gestures help learners self-regulate their L2 thinking and speaking, particularly when they are faced with problems that they need to repair. Recurrent teacher gestures are expected to act as an effective mediational means for learners' thinking and aid them in understanding and learning the grammar of the L2, particularly tenses and aspects (Matsumoto, 2016).

Also this study, like those of Lakoff & Johnson, (1981) & Nunez & Sweetser, (2006), utilized a conceptual metaphor related to time and space with one prominent distinction: The inclusion of aspects, which makes the abstract idea of tenses and aspects more tangible for learners as they use them or are exposed to them.

Maley & Peachy (2015) describe creativity as "thinking 'out of the box', coming up with fresh, divergent responses, original ideas and objects, new solutions to problems, or ways of looking at problems". They further note:

Creativity involves the opportunity to play with ideas freely and spontaneously. At the same time, it involves disciplined thinking, curiosity, and attention to detail and effort. It also needs to be underpinned by the development of specific strategies and skills. (Maley & Peachy, 2015: 29)

Therefore, according to Maley & Peachy (2015), this study looked at teaching and learning the tense-aspect system in a creative teacher talk way, its first and foremost goal being its problem solving potentials regarding teaching and learning tenses and aspects. The creativity resulted in a warm reception from the learners as it tried to facilitate the learning process for them.

Below, some advantages of using RGs over timelines are pointed out:

1. A timeline could be utilized as long as it is there on the board or at best, if its picture is available, which in most cases if not all, is not! Representational Gestures (RGs), however, are readily available as long as the user enjoys a pair of sound, functional hands. The availability of RGs aids the teacher in enhancing the input through visual demonstration (visual input) of the tenses/aspects accompanying the verbal input. This could be achieved in teacher talk, when listening to an audio track or reading a piece of text, or even in peer interactions.
2. Svalberg (1986) argues that grammar seems frustrating when it is seen as a set of unconnected and random rules. RGs consider the fact that the forms and functions in the three tenses are much the same. However, it is usually not the case with timelines. Learners seem not to relate the aspects of the three tenses to one another when taught using timelines (according to an interview done by the researcher). By contrast, RGs do everything to relate the aspects of the three tenses to each other, making it easier for learners to comprehend and internalize the concept of aspects.
3. Since RGs are much easier to commit to memory than timelines, and since RGs try to facilitate the learning of aspects by using some four or so fixed gestures for the four aspects in all three tenses, learners are able to associate forms (aspects) with their functions more easily through RGs.
4. Unlike timelines, RGs can be used in teaching the tense-aspect system to even very young learners. (RGs have been used by the researcher for students as young as 9 years of age as far as they can and/or need to learn this system – present simple and

continuous, past simple and even future simple – and indeed he has received very good feedback.)

5. RGs are more fun to use for learners than timelines. The researcher's experience in using the RGs in his EFL classes has proved that students, taught using RGs, do not look at learning tenses and aspects as a labour anymore! They welcome the RGs and seem not only to like them, but also to perform more satisfactorily when compared with logically demanding timelines!
6. Learners hardly ever [require/are required to] "draw" timelines when learning tenses, and in fact, they do not even like to do so! However, they may use the RGs when called upon or whenever they wish to, easy as they are both to learn and to use and this could be of great help in internalizing and consolidating the concept of aspects.
7. RGs make it possible to correct learners' errors in tenses and aspects without interrupting or stopping them. Operated non-verbally, RGs allow for a much less obtrusive way of correction than any verbal method of correction.

## **CONCLUSION**

The question of the study was whether there is any significant difference between grammatical achievements of students who learn tenses and aspects through representational gestures and those of students who learn it through the conventional method. According to the previous studies, Sharwood Smith (1991), Shook (1994) and White (1998), it was expected that enhancing the input, whether it is textual or visual, should have a positive impact on learners' performance. So the enhancement of the input visually through physical gestures was supposed to have a positive effect on learners' performance as well.

Representational gestures also raise the chance of noticing in teacher talk. Schmidt (2001) claims in his noticing hypothesis that in order for L2 learners to process input for acquisition, it must be noticed first. Consequently, enhancing input through employing RGs raises the chance for the input that has become visually salient to be better observed and hence, establish a trace in the long-term memory of L2 learners.

Some studies have regarded visual input enhancement as a technique for focus on form (Doughty, 1991; Robinson, 1997). Indeed, utilizing RGs in this study is a case in point. While focusing on forms, RGs make their way towards relating forms to functions by drawing learners' attention to the fact that forms and functions in the three tenses are much the same.

According to what was mentioned in the results section of this study in addition to being an input enhancement technique, representational gestures somehow making up for the shortcomings of timelines which have long been the most common means of teaching tenses and aspects.

The findings of the present study might have pedagogical implications for teachers, learners, and learning material developers. For practical questions about teaching tenses and aspects, the important outcome of the present experiment is that:

- a) RGs enjoy a number of advantages over timelines such as availability and ease

of use.

- b) RGs are easy to commit to memory and consequently, they are easy to remember (memory aid).
- c) They aid in associating forms (aspects) with functions, and this makes their utilization preferable.
- d) RGs also provide language teachers with the opportunity to correct learners' errors regarding tenses and aspects with as little interruption as possible.

Representational gestures could be used as an efficient means of teaching tenses and aspects in EFL classrooms. The use of RGs is an effective input enhancement technique which allows the EFL teachers to enhance the input concerning tenses and aspects, whether it is teacher talk, listening to an audio track or reading a piece of text.

Future research can be conducted to study the effect of providing learners with corrective feedback via Representational Gestures on their tense and aspect use. The present study did not concentrate on the corrective feedback through RGs. Perhaps other researchers could work on comparing the results of providing learners with corrective feedback through RGs with that of the conventional ways.

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