

Efficacy of Symmetrical and Asymmetrical Pushed Negotiations in Boosting Speaking

Parviz Ghasedi^{*1}, Habibollah Mashhady², Farideh Okati³, Nasser Fallah⁴

1, 2, 3, 4. English Department, University of Zabol, Iran

**Corresponding author: ghasedi.p.988@gmail.com*

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Abstract

This study was set out to shed light on the efficacy of pushed output directed by scaffolding on 41 (24 female and 17 male) upper-intermediate EFL learners speaking fluency and accuracy. A public version of IELTS speaking test was held to measure learners' entrance behavior. Then, they were randomly assigned into symmetrical, asymmetrical, and control group. The experimental and control groups covered 7 lessons of New Interchange 2 during 15 sessions, twice a week for about 45 minutes each session. Control group received placebo while symmetrical and asymmetrical groups worked on pushed output tasks. The data were audio recorded and transcribed for statistical analyses. The results indicated the efficacy of pushed output in boosting speaking. However, tests of between-subjects effects revealed that the mean score of the control group was not significantly different from that of experimental groups concerning speaking fluency. Furthermore, the results of Tukey's HSD post-hoc tests showed that asymmetrically pushed output activities were more effective in enhancing learners speaking accuracy. In sum, the results suggested that the implementation of pushed output strategies in student centered contexts could be considered as an effective way in the development of learners' oral output.

Keywords: pushed negotiation, symmetrical, asymmetrical, speaking

Introduction

Speaking, as a significant part of daily life, seems as the core for four major language skills (Egan, 1999; Bailey & Savage, 1994) and is regarded as the ultimate goal of learning the second or foreign languages (McCarthy, 1998). It is used as a medium for learning other skills (Alonso, 2014) and considered as the crucial criteria for knowing a language (Brown & Yule, 1983). Teaching oral skills, which is considered as the building block of any language education classroom (Goh & Burns, 2012), faced lots of challenges concerning how to be taught in ESL/EFL contexts (Alonso, 2014; Zhang, 2009).

With the emergence of sociocultural theory, this problem seems to be resolved. The defenders of this theory put the social exercises, process, and contexts at the heart of human learning (Vygotsky, 1978; Aljaafreh & Lantolf 1994; Ellis & Barkhuizen, 2005). Stressing that learning takes place first, through interaction with parents, adults, teachers or more knowledgeable peers and then integrated into the learners' (novice ones) minds, Vygotsky (1978) introduced the notion of Zone of Proximal Development (ZPD) and declared that learners' performance combined by others assistance would exceed what they could do without assistance. These assistances or guidance, called scaffolding (Wood, Bruner & Ross, 1976), may be in the form of temporary and adaptive support (Smit, Eerde, & Baker, 2014) or question answering and expert modeling (An, 2010).

More interestingly, nowadays the role of Swain (1985) Pushed Output Hypothesis (POH) as an essential factor for the development of learner's oral production is an accepted view among most researchers. Proposing the exposure to comprehensible input as a necessary but not a sufficient criterion, Swain (1995, p.128) argued that "output may stimulate learners to move from the semantic, open-ended, strategic processing prevalent in comprehension to the complete grammatical processing needed for accurate production". Swain (1985) POH considers comprehensible output as an emergency for language acquisition, which seems to be in contradiction with Krashen (1985, p.61) input hypothesis and his strong claims that the "comprehensible input is the only true cause of second language acquisition". Others claim that pushed output enables learners to process input effectively and enhance their correct use of the target forms (Basterrrechea, Mayo & Leeser, 2014).

Speaking is not simply regarded as pronouncing sounds, like other animals, or words, like babies, it is the involvement of "phonological, prosodic, lexical, syntactic, semantics, and pragmatic knowledge" (Osada, 2004, p. 56) plus productive level of communicative competence,

appropriateness, and effective use of language (Brown 1994; Munby, 1978; Fulcher 2003). Reviewing the previous studies on the acquisitions of oral proficiency revealed that it is a multidimensional construct which is divided into three main dimensions: complexity, fluency, and accuracy (Skehan, 1998; Skehan & Foster, 1999). In the current study fluency and accuracy were considered as the cornerstone.

Skehan (1996) notes that fluency refers to the speaker's ability to outfit the interlanguage framework to communicate intentions and goals naturally, without hesitation or interruption. Al-Shareef (2016) regards it as the competence in emphasizing meaning and defined it as the number of connected words or phrases that a person can produce during writing or speaking in a specific point in time. Others regard it as the native use of language without comprehension difficulties (Brumfit, 1984) or speaker ability to take part in regular communication (Abdi, Eslami & Zahedi, 2012). In the eye of Fillmore (1979), fluent speakers should have four main capabilities. These attributes incorporate the ability to speak without much pauses, stops, or delays, filling the period of talking with semantically rich utterances not with fillers, knowing how to say what to whom in different contexts, and finally being creative in target language as they are in the native one.

Accuracy means the ability to produce error-free speech (Lennon, 1990, p.390). Housen, Kuiken and Vedder (2012) mention that accuracy refers to the learner's ability to produce appropriate and acceptable form of the intended language to convey specific meaning. Ellis (2005) defined accuracy as the efforts of language learner to avoid making errors in their productions. Accuracy reflects speaker or writer proficiency concerning the production of lexically coherent and grammatically correct utterances (Ellis, 2005; Housen & Kuiken, 2009). Alonso (2014) regards fluency and accuracy as means for promoting language proficiency.

Scaffolding is one of the related concepts to sociocultural theory which argue that human beings are innately social (Huitt & Dawson, 2011) and their learning is bounded to social and cultural forces that influence their lives (Barnard & Campbell, 2005). Defining ZPD as the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers, Vygotsky (1978, p. 86) put much accentuates on the cooperative student-centered learning, instead of traditional teacher centered one, with lots of interaction between more and less knowledgeable persons. The chief

aim of the application of ZPD to the language learning contexts is that lexicogrammatical knowledge of the target language is constructed under guidance or through collaboration with more capable individuals (Eun & Lim, 2009; Gibbons, 2002).

The procedure that empowers a less capable learner to complete an assignment or accomplish an objective is called scaffolding (Wood, et al., 1976). Scaffolding refers to the interim or additive support, guidance, or explanations that are given to the learners in order to help them (when they encounter new situation, content, topic or complex task) develop their current levels of proficiencies or in general term their competence (De Guerrero & Villamil, 2000; Gibbons, 2002; Cooper & Robinson, 2014). Research indicates that there are two kinds of scaffolding that seem to have significant place in academic context, namely symmetrical and asymmetrical (Roth & Middleton, 2006; Zuckerman, 2007; Roth & Radford, 2010).

Symmetrical scaffolding rests on the fact that learning and development are the results of collaboration and negotiation between learners who have the similar level of proficiency or conceptual knowledge (Littleton & Light, 1999). In symmetrical scaffolding the homogeneous learners give needed supports or assistance to each other during the process of learning, until they apply new skills without others guidance (Rosenshine & Meister, 1992). In contrast to this view, asymmetrical scaffolding assumed to be based on the Vygotsky's (1978) sociocultural theory and the notion of ZPD. In asymmetrical scaffolding, learners with different ZPD form a group and collaborate together, to achieve a specific goal or complete a task, in which the more knowledgeable or capable peers play the role of scaffolder by giving the novice learners the assistance, supports, or guidance (Baleghizadeh et al., 2010; Field, 2004). Roth and Radford (2010) assert that in asymmetrical scaffolding the students become each other teacher and help each other.

The significance of symmetrical and asymmetrical scaffolding in academic context, listening comprehension (Ableeva, 2010), reading (Baleghizadeh et al., 2010; Wachyuni, 2015), writing ability (Ahangari, Hejazi & Razmjou, 2014; Obeiah & Bataineh, 2015), Grammatical accuracy (Taherkhani & Mahmoodi, 2015; Jahanbin, Kazemi & Omidvari, 2015), and task completion (Hawkes, 2012) is well documented.

In spite of the crucial place of input in academic context, especially teaching and learning EFL or ESL, it was regarded as a vital but not sufficient factor for language learning (Swain, 1995; Swain & Lapkin, 1995; Izumi, 2002; Gass & Mackey, 2007). The results of the previous studies in

this area emboss the significance of another hypothesis in enhancing learners' current competence levels, namely POH (Swain, 1985).

Ellis (2003) defined POH simply as output that reverberates what student can deliver when he/she is pushed to use the target language fluently and accurately. Nation (2011) states that pushed means scaffolding learners to perform beyond their current competence levels and pushed output occurs when learners are forced to produce the target language in tasks that they aren't completely familiar with. Swain (1985; 1995; 2000) note that the specific functions of pushed output that couldn't be observed in input hypothesis includes noticing/ consciousness-raising, hypothesis testing, and metalinguistic.

The noticing function of POH, in production activities, makes students aware of their incapability to use the target forms to convey their meanings (Byrne, 2012; Schmidt & Frota 1986; Thwaites, 2014) and increase their awareness of the gap between their productions and the outputs of more proficient learners or teachers (Swain, 1998; Izumi, 2003). The second function of POH provides learners with the opportunities to get feedback and test their hypothesis (Swain, 1998). Actually, it's during this stage that learner dares to deploy the borders of their interlanguage (Byrne & Jones, 2014) through receiving feedbacks from more capable persons during trying out target structures (Basterrechea et al., 2014). Finally, Quinn (2008) reminds that in the metalinguistic function students use spoken or written output to reflect upon its structures and coherence and learn from it. This reflection sets the grounds for hypothesis testing and language acquisition (Swain, 2000).

Concerning the research that was conducted in the domain of POH, which is regarded as the base of the current study, Basterrechea et al., (2014) claim that POH gives the learner the power to process the received input effectively and enhances their correct use of the target forms. Furthermore it was claimed that POH draws learners' attention to the formal aspects of language (Basterrechea, et. al., 2014), improves their syntactic complexity (Tabatabaei & Yakhabi, 2009), and leads to the development of interlanguage (Byrne & Jones, 2014).

Ertürk (2013) conducted a quasi-experimental study to investigate the effect of POH on learning and retention of English conditional sentences and collected data from three experimental and one control group. The results indicated that the subjects, received the same input, engaged in the pushed output treatment surpassed those in the control group. In a similar study by Byrne (2012), the effects of pushed and non-pushed task on the

production of language related episodes were investigated. The data were collected from 21 upper-intermediate students in UK University. The findings revealed that pushed tasks increased the opportunity for linguistic processing. Likewise the results showed that pushed task lead to interlanguage development.

A plethora of studies has demonstrated the challenges that EFL/ESL learners faced in the process of learning the target language. For instance, Mohammadi, Gorjian, and Pazhakh (2014) summarize these problems as the inadequacy of learner's opportunity to speak English outside the classroom, classroom structures, and lack of teachers' sufficient attention to speaking. Consequently, finding a beneficial way for teaching learners to become fluent, accurate speakers became the main challenges of EFL/ESL teachers (Skehan, 1998; Chang, 2000; Alonso, 2014; Samizad & Khodabandehlou, 2015). Research indicates that one of the significant challenges that EFL learners, especially in Iran, are facing is their weakness in producing accurate, fluent, and complex speech in real situations (Dahmardeh, 2009; Noora, 2008). Furthermore, one of the big challenges of EFL teachers is how to teach speaking (Alonso, 2014; Soleimani & Rezazadeh, 2013; Zhang, 2009). On the other hand, the inclusive review of the related studies show that large body of research conducted in the domain of sociocultural theory and POH focused on listening, reading, and writing ability (Eun & Lim, 2009; Ertürk, 2013; Obeiah & Bataineh, 2015; Shabani, 2012; Tabatabaei & Yakhabi, 2009). Moreover, there is no valid long term evidence of the effectiveness of POH on the L2 learning (Thwaites, 2014). Although Baleghizadeh, Timcheh Memar, and Memar (2010) argued that symmetrical scaffolding is more beneficial than asymmetrical one, others claimed that the effects of asymmetrical scaffolding are more fruitful (Izanlu & Feyli, 2015; Maftoon & Ghafouri, 2009; Pishghadam & Ghadiri, 2011). Therefore, the current study was set out to shed more light on the effects of POH directed by symmetrical and asymmetrical scaffolding on learner s speaking fluency and accuracy. Meanwhile, a quantitative comparison was made between the effects of symmetrical and asymmetrical pushed output.

Q.1 Does pushed output have any significant effect on EFL learners speaking fluency and accuracy?

Q.2 Is there any significant difference between the effects of symmetrical and asymmetrical scaffolding based on pushed output on the fluency and accuracy of EFL learners oral production?

Method

Participants

The data for this study were drawn from 41 Iranian EFL learners from University of Zabol, ranging in age from 20-29 comprising 17 males and 24 females. All of them were Iranian language learners whose mother tongue was Persian. It's worth mentioning that the sample was chosen based on the result of Oxford Placement Test (OPT) from a whole population of 80. Based on the OPT manual for interpretation of scores those whose scores were between 40-47 were considered as upper-intermediate learners and were selected as the participants of this study. Then, they were into three groups, Control Group (CG), Symmetrically Pushed Group (SPG), and Asymmetrically Pushed Group (APG). The participants of the CG were randomly assigned, but the participants of SPG group were those students whose scores on OPT didn't differ more than one standard deviation from the predetermined cut score. Likewise, the participants of APG consisted of the learners whose scores were more than one standard deviation below or above the predetermined cut score. Table 1 shows number, educational level, and gender of the groups.

Table 1
Groups' specification

Groups	Total No	Gender		Education	
		Male	Female	BA	MA
CG	14	7	7	8	6
SPG	13	5	8	9	2
APG	14	5	9	10	6
Total	41	17	24	27	14

As Table 1 indicates, the researcher put 7 males and 7 females (8 BA, 6 MA students) in CG, 5 males and 8 females (9 BA and 2 MA students) in SPG, and 5 males and 9 females (10 BA, and 6 MA students) in APG.

Instrumentation

In this study the following four different data collection instruments were implemented to examine the research questions.

Oxford Placement Test

OPT (2001), version 2, was the first instrument that was used in this study, in order to measure the proficiency level of the respondents. OPT consists of

two parts. Part one (items 1-40) includes three close passages and 25 multiple choice items, measures simpler grammatical and lexical points, and part two (items 41-60) consists of two close passages and 10 multiple choice items, measures more difficult grammatical and lexical points. The allotted time for answering OPT is 45 minutes. Based on OPT examination boards all of the participants were supposed to answer the first part, but answering part two was restricted to the permission of the test supervisor. Since the reliability and validity of OPT is self-evident, it is mostly used to measure overall language ability (Allan, 1992). The reliability of the OPT in this study (running Cronbach α) was .79.

IELTS speaking test

The next instrument that was used in this study, as pre-test and posttest, was IELTS speaking test (public version). Based on the IELTS Speaking Test Band Descriptors the oral proficiency of the learners is measured according to the four criteria, fluency, lexical knowledge, accuracy, and pronunciation. Actually, IELTS speaking test takes 11-14 minutes (Jakeman & McDowell, 2008). The public version of the test consists of three parts of face to face interview (4-5 minutes), long turn speech (3-4 minutes), and Discussion (4-5 minutes). Based on IELTS guideline for teachers, the participants are supposed to answer the general questions, talk about familiar topic, and discuss during the three stages, respectively. It's worth noting that to avoid potential practice effect the participants received two different parallel test during pre-test and post-test. The reliabilities of the pre-test and post-test (running Cronbach α) were .75 and .78, respectively. On the other hand, the validities of the two used versions of the tests in this study were confirmed by two experts in the field.

New Interchange 2

New interchange 2 (fourth edition) was selected as the base book in this study, since it was the widely used book to teach English in Iran (Gholami, Rafsanjani- Nejad & Loozragi- Pour, 2014). According to the author of the fourth edition of the book (Richards, Hall, Proctor, 2013) this new edition contains lots of exercises including snapshot, conversation, pronunciation, grammar, reading and writing. It also gives the learners lots of information about English speakers' cultures. It's worth noting that in the current study the researchers focused on the exercises that were specially designed for speaking.

Audio Recorder

The compact Philips GoGear Mix MP3 Player was used to record the interviews during pretest and posttest. It is a walk man type audio recorder

with 3.5 mm AY3819 headphones, 150 mAh battery capacity, and 0.022 kg weight.

Procedure

Data for this study were collected through a true experimental study that was conducted during near 4 month. At the beginning of the study the authors gave them brief information about the aim as well as the significance of the study to the language education field. In order to conduct the research project, the researchers choose 17 males and 24 females language learners. The selection of the participants was done based on the results of the OPT. After that, a pre-test consisting of IELTS speaking test was held to measure learners' entrance behavior. Then, the selected subjects were put into one control and two experimental groups. These groups during 15 sessions, twice a week for about 45 minutes each session, covered seven lessons of *New Interchange 2*. The CG received placebo, non-pushed activities such as listening to news, memorizing the conversation section in the book, talking about favorites and lifestyle, and listening to real interaction among native speakers. The experimental groups, SPG, and APG worked on the pushed output tasks.

At the beginning of the first session, the researchers explained the concept, purposes, and significance of scaffolding and POH to the experimental groups, that through collaboration and helping each other they can produce more fluent and accurate speech. The main tasks that were used in the treatment of experimental groups were retelling and decision making tasks. The selection of these tasks were provoked by the previous studies (Izumi, 2003; Mackey & Oliver, 2002). Research indicates that, task based lessons consist of three main stages of pre-task, main task, and post-task activities (Lee, 2000; Skehan 1996). In line with the previous studies, pre-tasks were used as means of scaffolding learners concerning how to do the tasks, what they were required to do during the main tasks, and what were the expected outcomes (Lee, 2000). Likewise, it was used to motivate the participants. Moreover, the time limits were set for doing the tasks, since it was considered to have more effective results (Lee, 2000).

In retelling task the learners read a short text from *New Interchange 2*. Then, they closed their books and started to retell its contents to their group members. Another form of retelling task gave learners the opportunities to listen to a recording from the book and noted down some key words. Then, they used these key words to retell what they heard. This activity took a few minutes. As post-task activities, the researcher called one of the members of each group randomly to retell (to the class) what was read or listened. In

decision making task, after determining the topics and encouraging learners to participate in task completion, the learners were given five minutes to think about the topics. The topics that were discussed in this study were selected based on the contents of each unit and learners' needs in the real world. For example, based on the main theme of the unit 2 (Caught in the Rush), discussing the transportation problems in Zabol was selected as one of the decision making tasks in teaching unit 2. Likewise, in teaching unit 7 (which discussed the effects of new technologies on lives), the effects of internet on spending university students' free time was selected as the main topic.

During the task phase, the participants (worked in groups of 3 or 4 collaboratively) were monitored. Furthermore, they were informed of the necessity of their participation in discussions. As post task phase, each group was supposed to report the main points of their decisions, results, or suggestions to the class. These tasks were taught cooperatively to them and teacher asked them to cooperate and push each other to produce more fluent and accurate speech. At the end of the experimental period, an IELTS speaking test was used as posttest to measure learners' speaking fluency and accuracy. The data were audio recorded and transcribed by the researchers. It is worth noting that an audio recorder (Philips GoGear Mix MP3 Player) was used to record the interviews during pretest and posttest. Then the transcriptions were coded for statistical analysis.

Results

The rating of fluency and accuracy

Following the previous studies, the measurement of fluency and Accuracy were done based on the method that was implemented by Foster and Skehan (1996), which was considered as the most reliable and valid measure of fluency and accuracy (Skehan & Foster, 1999; Ellis & Yuan, 2004; Ellis, 2005). Fluency is considered as the language production without any pausing, hesitation, or reformulations (Ellis, 2003). Regarding pausing, no distinction was made between pausing and using fillers like Uh, Unn, and Um (Mehnert, 1998). Generally speaking, in this study the speech fluency was measured by dividing the number of uttered words by the verbalization time, per minute, (Skehan & Foster, 1999). On the other hand, Housen and Kuiken (2009) considered accuracy as the ability to produce error-free speech. In the current study accuracy was measured through counting the proportion of error-free T-units to all T-units (Skehan & Foster, 1997; Mehnert, 1998; Tavakoli & Skehan, 2005). Following Skehan

and Foster (1999) all the lexical, grammatical, morphological, and spelling errors were counted.

The first research question inquired whether POH (symmetrically and asymmetrically) could lead to more fluent and accurate speech. To test the effects of symmetrical and asymmetrical PO on speaking fluency and accuracy, MANOVA was run. The results of descriptive statistics are presented in Table 2.

Table 2
Descriptive statistics of speaking accuracy and fluency at pre/post-test

		Groups	N	M	SD	SE
Accuracy	Pre-test	CG	14	59.364	1.097	.293
		SPG	13	59.416	.877	.243
		APG	14	59.335	1.331	.355
Fluency	Pre-test	CG	14	89.010	1.589	.424
		SPG	13	89.053	.428	.118
		APG	14	89.157	1.825	.487
Accuracy	Post-test	CG	14	64.355	3.624	.968
		SPG	13	69.168	.875	.242
		APG	14	77.540	2.596	.694
Fluency	Post-test	CG	14	89.186	1.704	.455
		SPG	13	89.352	.450	.124
		APG	14	89.675	2.130	.569

According to Table 2, the mean scores of CG ($M_{\text{accuracy}}= 64.355$, $M_{\text{fluency}}= 89.186$), SPG ($M_{\text{accuracy}}= 69.168$, $M_{\text{fluency}}= 89.352$), and APG ($M_{\text{accuracy}}= 77.540$, $M_{\text{fluency}}= 89.675$) were rather different at the post-test of the study. For further investigation of the differences among groups MANOVA was used. Preliminary assumption testing revealed that, the assumption of homogeneity of variance-covariance matrices was not violated (Table 4).

Table 3
Box's test of equality of covariance matrices

Box's M	F	df1	df2	Sig.
82.881	6.106	12	6.910E3	.097 ^a

Note. ^a = $p > .05$.

Besides, a Multivariate test was conducted to investigate the differences between the effects of control and experimental groups (SPG and APG) on speaking accuracy and fluency.

Table 4

Multivariate test for the effects of CG, SPG, and APG on speaking accuracy and fluency

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Groups	Pillai's Trace	.904	10.174	6	74	.000*	.452
	Wilks' Lambda	.099	26.232	6	72	.000*	.686
	Hotelling's Trace	9.124	53.226	6	70	.000*	.820
	Roy's Largest Root	9.122	1.125	3	37	.000*	.901

Note. * = $P < .05$.

Table 4 reveals that there are statistically significant differences among the effects of CG, SPG, and APG ($F = 10.174$, $P = .00$, Pillai's Trace = .904, partial eta squared = .452) on the learners' speech accuracy and fluency. To find out where the differences were, tests of between-subjects effects were run.

Table 5

Tests of between-subjects effects for the effect of CG, SPG, and APG on speaking CAF

Source	Dimensions	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Groups	Accuracy	1245.031	2	622.515	88.374	.000*	.823
	Fluency	1.731	2	.865	.332	.720 ^a	.017

Note. * = $p < .05$, ^a = $p > .05$.

As it is shown in Table 5, there are significant differences among the effects of CG, SPG, and APG on speaking accuracy ($F = 88.374$, $p = .000$, partial eta squared = .823). However, no significant difference is observed among their effects on speaking fluency ($F = 1.731$, $p = .720$, partial eta squared = .017). Consequently, it can be claimed that symmetrical and asymmetrical PO leads to the production of more accurate speech. However, its effects on fluency were not statistically significant.

The second research question deals with the differences between the effects of symmetrical and asymmetrical pushed output on EFL learners' speaking fluency and accuracy. The results of statistical analyses (Table 2) reveal that the M, SD, and SE of SPG concerning accuracy were 69.168, .875, and .242 and 77.540, 2.596, and .694 for APG. Besides, regarding fluency M, SD, and SE for SPG were 89.352, .450, and .124. These amounts

for APG were 89.675, 2.130, and .569. Accordingly, concerning speaking accuracy and fluency, the M scores of APG were higher than SPG. Next, Tukey's HSD Post Hoc Test was run to determine which one (APG or SPG) plays more significant role in developing speech accuracy.

Table 6
Tukey's HSD Post Hoc Test for accuracy

(I) Group	(J) Group	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
		(I-J)			Lower Bound	Upper
Control	Symmetrical	-4.81*	.93	.00	-7.31	-2.31
	Asymmetrical	-13.18*	.92	.00	-15.63	-
Symmetrical	Control	4.81*	.93	.00	2.31	7.31
	Asymmetrical	-8.37*	.93	.00	-10.87	-
Asymmetrical	Control	13.18*	.92	.00	10.73	15.63
	Symmetrical	8.37*	.93	.00	5.87	10.87

*. The mean difference is significant at the 0.05 level.

Tukey's HSD post-hoc Tests indicated that there was a statistically significant difference in accuracy scores between the CG (M= 64.35) and SPG (M= 69.16) with the mean difference of 4.81275, $p = .00$, $p < .05$ and APG (M=77.54) with the mean difference of 13.18, $p = .00$, $p < .05$. Furthermore, there is statistically significant difference between mean scores of APG (M=77.54) and SPG (M= 69.16) with the mean difference of 8.37225. In sum, the results of Tukey's HSD post-hoc Tests revealed that implementing APG played more effective role in developing speaking accuracy.

Discussion

The major aim of the current study was investigating the effect of symmetrical and asymmetrical pushed output on EFL learners speaking fluency and accuracy. Meanwhile, a comparison was made between the effect of APG and SPG on learners speaking fluency and accuracy. The first research question addressed the effect of POH on speaking fluency and accuracy. The results showed that the mean scores of participants were

increased significantly (during post-test). It suggests that pushing learners, by teacher or peers, lead to more accurate and fluent speech. However, Tests of between-subjects effects indicated no significant difference among their effects on speaking fluency. The findings are in the same line with previous studies (Swain & Lapkin 1995; Izumi & Bigelow, 2000; Sadeghi- Beniss & Edalati-Bazzaz, 2014). Basterrechea et al., (2014) mention that using POH enhances the production of correct target forms. Others claimed implementing POH enhance syntactic complexity (Tabatabaei & Yakhabi, 2009), correct use of verb tense (Birjandi & Jafarpour-Mamaghani, 2014) and conditional sentences Ertürk (2013). The positive effects of PO in the current study are consistent with the Swain (1985) POH. One plausible reason for obtaining such results can be the fact that pushing learners to talk force them to use their schemata to produce grammatically correct, pragmatically meaningful, and lexically dense outputs. Learners outputs may not be completely correct or lexically dense at first. However, the repetitions of such activities lead to more accurate utilization of varieties of complex structures.

A surprising finding of this study is that PO has positive impact on speech fluency, however it is not significant. Similarly, Sadeghi- Beniss and Edalati-Bazzaz (2014) assert that PO is not influential in developing learners speech fluency because of the nature of PO activities and the ways of interaction among learners. The low efficacy of PO activities in boosting speech fluency in this study can be attributed to the participant misunderstandings of the objectives of pushing. Perhaps the interactions among learners in predetermined PO tasks of this study inspired them to pay more attention to the correctness and complexity of their outputs.

The second research question compared the effects of symmetrical and asymmetrical pushed out put activities on learners speaking fluency and accuracy. The results of Tukey's HSD post-hoc Tests revealed that the mean differences of APG and CG was 13.18 and the mean difference of SPG and CG was 4.81. Likewise, the mean difference of APG and SPG was 8.37 which indicated that APG was more effective in enhancing learners speaking accuracy. Moreover, the mean score of APG was higher than SPG concerning speech fluency. In sum, the findings indicated the effectiveness and fruitfulness of heterogeneous group formation in boosting speaking (especially accuracy). In similar context, Maftoon and Ghafoori (2009) observed no differences between the effect of symmetrical and asymmetrical scaffolding on writing skills. Regarding the effect of scaffolding on reading comprehension, Baleghizadeh et al., (2010) claimed that the homogeneous group outperformed the heterogeneous one. On the

other hand, concerning the effectiveness of asymmetrical scaffolding over symmetrical one Pishghadam and Ghadiri (2011) mentioned that asymmetrical members benefited more and had better performance on reading. Besides, Izanlu and Feyli (2015) investigated the effect of asymmetrical and symmetrical group works on grammar acquisition. The results of independent and paired t-test indicated that asymmetrical scaffolding had more fruitful results on learners' grammar achievement than symmetrical one.

The finding could be justified through taking the main tenants of sociocultural theory and POH into account. In support of Swain (1985) POH, the results make it clear that participating in collaborative oral production set the grounds for learners to practice what they know and also see others outputs. In this way, they become aware of their grammatical and lexical weakness to convey their intentions (Byrne, 2012; Thornbury, 1997; Thwaites, 2014). Furthermore, learners have different weakness and strength points. In asymmetrical cooperation they receive feedbacks from more knowledgeable peers. Therefore, they are provided with the opportunities to take advantage from the more proficient students oral productions. Likewise, they can compare their outputs with others (Kumaravadivelu, 2006). It inspires them toward the internalization of more accurate, coherent, and meaningful ones (Kumaravadivelu, 2006).

While a plethora of studies are required to be conducted in order to show the impact of POH on second or foreign language speaking ability, the results extracted from the statistical analysis of the current study made it certain that the implementation of POH in language learning classroom should be directed by scaffolding (symmetrically or asymmetrically). In the same line Harmer (2001, p. 269) divided the necessary elements for speaking fluently and accurately into two broad branches of language features and language/ social processing . According to Harmer (2001) having linguistics knowledge such as the capability to produce phonemes separately and in connected speech, the ability to implement paralinguistic means automatically, and having an ideal grammatical and lexical knowledge for the production of accurate and fluent speech is necessary but not sufficient. He mentioned that learners capacity to use the above mentioned knowledge, processing them rapidly, understand others and listen to them, and above all their ability to interact with others and seek information from them are vital elements of a fluent and accurate speech.

Furthermore the findings of the current study revealed that the integration of POH activities with scaffolding based instruction lead to effective and

fruitful results in second language learning and more specifically in speaking fluency and accuracy. In the case of scaffolding, the findings support the Vygotsky notion of the emergence of the existence of a more capable peer in group. As Izanlu and Feyli(2013) state when the member of groups are heterogeneous the members modify and adjust their utterances in a way that other members have no difficulty in understanding it which lead to providing comprehensible input and output.

The results have reopened our understanding of the significant role of POH and scaffolding in developing learners speaking fluency and accuracy. Based on the findings of the study some pedagogical implications are suggested. First, language teachers should consider significant place for POH activities and collaboration tasks in their class. Teachers should provide learners with the opportunities to show what they had learned. Engaging learner in production activities in collaboration with more knowledgeable peers make them aware of their strengths and weakness. Furthermore in group formation and the selection of the participants the proficiency level of the students should be taken in to serious consideration. The findings of the current study suggests that instead of forming groups based on gender or age it should be formed based on the proficiency level and the group members should be heterogeneous. Furthermore, curriculum designers, material developers, and textbook writers are recommended to consider collaborative speaking activities as an integrated part of language education programs in order to avoid foreign language speaking anxiety.

In the current study, the following limitations and delimitations ought to be considered: The first limitation referred to the time limit of the study. If this study had carried out in longer time, different results might have been achieved. The researcher tried to choose a time limit that provided the sufficient data for statistical analyses concerning the main aim of the study. The second limitation of the current study was related to the limited number of participants. Which restrict the probability of generalizing the findings. Therefore, the author delimited the sample to the upper-intermediate EFL learners.

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Biodata

Parviz Ghasedi: As an instructor in TEFL, he has taught English as a foreign language for several years. He has given consultancies in the field of English language education. He has published extensively in applied linguistics, translation studies and language education. Besides, he has participated in many national and international conferences as a lecturer.

Habibollah Mashhady: As an associate professor in TEF, he has published fifty papers in scientific and research journals and international conferences. He has also published two books and has finished two research projects. His research interests are Applied Linguistics, Psychology, Teaching and Learning Principles, and Translation Studies.

Farideh Okati: As an assistant professor in Linguistics, she has published several papers in scientific and research journals and international conferences.

Nasser Fallah: As an PhD candidate in the Tarbyat Modares university, he is an instructor in the university of Zabol. He published a number of papers in ISI and other national and international scientific journals

