

Exploring the role of online group dynamic assessment on L2 learners' listening comprehension

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Abstract

Group dynamic assessment (G-DA), rooted in Vygotskian sociocultural theory (SCT), provides a context in which mediational strategies can create a Zone of Proximal Development (ZPD) whereby language learners manifest the capacities beyond their current level of functioning. The present study investigated the effect of online G-DA in developing the listening comprehension of English as a foreign language (EFL) learners. It also explored the mediational strategies that could foster the development of listening comprehension. To this end, 47 upper-intermediate EFL learners in a language institute were assigned to experimental (dynamic), and control (non-dynamic) groups, and were asked to take part in a pretest, posttest, and delayed posttest. To analyze the data, one-way ANCOVA and a mixed between-within subjects ANOVA were carried out. The results of the data analysis indicated that the dynamic group significantly outperformed the non-dynamic group. Also, the participants' listening gains in the experimental group significantly increased from the pretest to the posttest and delayed posttest. Further qualitative analysis led to the detection of 13 mediational strategies which could foster the development of listening comprehension in the upper-intermediate learners. Finally, suggestions are made to uncover and solve some of the problems L2 learners encounter during listening comprehension process.

Keywords: group dynamic assessment; zone of proximal development; mediational strategies; listening comprehension

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1. Introduction

Recent second/foreign language (L2) research has demonstrated a need for pedagogical tasks that promote the negotiation of meaning and provide opportunity for feedback and attention to form (e.g., Ellis, 2003, p. 26; Nassaji & Tian, 2010). It is assumed that pedagogical tasks which require learners to work together provide opportunities for peer feedback and scaffolding (Nassaji & Tian, 2010). According to Fernández Dobao (2012, p. 229), “when learners collaborate to solve linguistic problems, they engage in language-mediated cognitive activities that serve to build linguistic knowledge”. In this way, the new knowledge that learners collaboratively construct can be appropriately reused in further tasks (Swain & Watanabe, 2013).

The role of collaboration in L2 learning has been emphasized in Vygotsky's sociocultural theory (SCT). From a sociocultural perspective, individual cognitive development is not achieved by isolated learning; social interaction and collaboration are important requirements for learning (Nassaji & Tian, 2010). Indeed, in collaborative tasks, learners get help from their peers not only to convey meaning, but also to develop meaning (Swain, 2010). When learners collaborate to produce output, they internalize and consolidate L2 knowledge (Nassaji & Tian, 2010). In light of the theoretical framework, dynamic assessment offers a particular type of collaborative dialogue. Particularly group dynamic assessment (G-DA) demonstrates the integration of instruction and assessment through collaborative interaction during which appropriate mediation is negotiated with learners to move development forward (Lantolf & Poehner, 2014). This negotiation takes place within the learners' zone of proximal development (ZPD) which highlights the importance of collaborative works. Within the learners' ZPD, learners use their existing knowledge to develop what they have not yet mastered independently (Nassaji & Swain, 2000; Nassaji & Tian, 2010). In this way, they are capable of solving similar problems on other similar occasions in future (Marsden, Mitchell, & Myles, 2013). Therefore, in G-DA approach, ZPD yields a highly interactive setting wherein a micro-genetic learning i.e., local and contextualized learning, emerges (Marsden et al., 2013; Vygotsky, 1980).

G-DA as an approach can promote performance through mediation and allow both L2 learners and teachers to be aware of the developing process in comprehending language. According to Ableeva (2010) and Vandergrift (2007), in this approach, ZPD can serve as the leading methodological framework to diagnose individuals' differences in understanding listening comprehension and track their listening problems impeding the comprehension. Moreover, the potential of this approach in promoting L2 learners' skills and for authentic learning environment through technology should be taken into consideration. Computer technology can offer favorable conditions for the micro-genetic learning by facilitating learners' interaction with peers and an expert language user who are located remotely. According to Belz (2007) and Eslami, Mirzaei, and Dini (2015), technology-mediated exchanges can represent scaffolded assistance while engaging in online collaborative dialogues. Despite this, few studies have probed ZPD during online collaborative dialogue. Thus, this study aimed to provide a picture of L2 learners' listening comprehension development through online G-DA and illustrate the source of poor performance of L2 learners in listening comprehension.

2. Literature review

Vygotsky and his colleagues developed a social and cultural theory of mind which rooted in philosophers, such as Spinoza, Hegel, Marx, and Engels (Daniels, Cole, & Wertsch, 2007). This theory, which is known as SCT, offers an exhilarating agenda for the renewal of L2 classroom practice (Marsden et al., 2013). Within the framework of this theory, “human cognition is mediated socially through interaction with others and culturally through the use of cultural objects” (Poehner, 2008, p. 26). Therefore, human learning is mediated learning,

wherein the gradual and step by step assistances are offered to learners by a mediator to proceed individual development (Nassaji, 2016). Accordingly, L2 learners have a second chance to create new tools and new ways of meaning (Dunn & Lantolf, 1998). The process of supportive dialogue helps them to complete a task beyond their actual developmental level (Swain & Watanabe, 2013).

The most fundamental notion in Vygotsky's SCT is the ZPD, an instantiation of the relation between theory and practice (Lantolf & Poehner, 2014). In fact, ZPD is "the distance between the child's developmental levels as determined by independent problem solving and the higher level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1980, p. 86). Although the ZPD is conceived of interaction between an expert and novice to foster his/her cognitive development, it is not restricted to development under an expert guidance (Lantolf, 2000; Van Compernelle & Williams, 2012). Instead, it is conceived of learning opportunities provided as a result of collaborative interaction between peers or an expert and novice to develop their mental abilities (Van Compernelle & Williams, 2012).

Although the concept of ZPD has been referenced extensively in the L2 literature, it has gained significance with the emergence of DA in the L2 learning (Lantolf & Poehner, 2014). In this approach, "intervention was embedded within the assessment procedure in order to interpret individual's abilities and lead them to higher levels of functioning" (Poehner, 2008, p. 5). Implementation of DA for a group of L2 learners fed well into a framework which was known as G-DA. In this approach, teacher engages the group in an activity in which all members require mediation. In this way, teacher offers mediation in response to the difficulty of one of the learners in the group. Poehner (2009) further claims that "G-DA's contribution to L2 education is that it renders classroom interactions more systematic and more attuned to learner's emergent abilities" (p. 488). Specifically, the teacher may offer G-DA in two different approaches in the classroom namely, concurrent G-DA and cumulative G-DA (Poehner, 2009). In concurrent G-DA, the teacher interacts with the entire class and interaction shifts from primary to secondary interaction, but in cumulative G-DA approach, the teacher carries out a series of one-on-one DA interaction as the group works.

In a study, Alavi, Kaivanpanah, and Shabani (2011) focused on EFL listening ability and implemented a concurrent interactionist G-DA to a group of intermediate EFL learners. In each session, 15 learners listened to an authentic text selected from VOA broadcasts. Then, the teacher replayed the listening text portion by portion and asked them to provide their recalls either in L1 or L2. Upon the learners' failure to recall the text, the teacher offered hints, prompt, and leading questions. Following the analysis of interactions, they reported an inventory of mediational strategies which included different forms of implicit and explicit feedback. The results showed that learners benefited from cooperative scaffolding and promoted their listening comprehension.

In addition, Shabani (2014) implemented G-DA to intermediate EFL learners' listening comprehension ability and examined whether the EFL learners could reapply their newly gained abilities in the non-assessment contexts. Each session involved two phases i.e., NDA and DA. Therefore, the researcher in each session at first assessed learners' independent performance without any assistance. Immediately following this stage, mediations were offered to them to promote their listening comprehension abilities. The qualitative and quantitative data analysis indicated that learners were able to recognize the unknown words in the posttest and the transfer session. This improvement was an evidence of internalization of the knowledge that L2 learners gained through G-DA.

Furthermore, Shahraki, Ketabi, and Barati (2015) tested the applicability of G-DA on pragmatic knowledge of conversational implicated in the context of listening. To this end, two intermediate intact classes were selected. One class was considered as the experimental group and the other as the control group. The pretest, enrichment phase, and the posttest were carried out in a time span of 10 weeks. In the experimental group, the teacher offered mediational strategies. In each session, first the participants in the experimental group answered a listening test individually. Then, the test sheets were collected, and the listening text was replayed portion by portion for the class to provide their recalls. Upon the students' failure to recall the content of the portion, the

teacher provided flexible mediations using the interactionist approach. The participants in the control group did not receive any mediation. Qualitative and quantitative data analysis showed that the implementation of G-DA enhanced the development of listening ability.

So far, research findings on G-DA have demonstrated certain benefits for implementation of G-DA approach in the context of listening comprehension. These efforts have mostly addressed low-level proficiency learners in need of bottom-up skills. They have considered primarily linguistic dimensions in text processing through sentence-based parsing. Moreover, the research findings reap the benefits of this approach just in classroom setting. However, as some research (e.g., Poehner, 2008) suggests, further research is required to use computer technology, which can offer an affordable platform for the practice and use of L2 knowledge in meaningful interaction. In fact, this study aimed to examine the role of G-DA in developing the listening comprehension of upper-intermediate EFL learners and determine the extent to which this approach could foster listening comprehension development, as compared with the NDA approach, with the focus on top-down skills (at the discourse level). Moreover, this study used the concurrent interactionist G-DA procedure through skype in which the instructor interacted with some EFL learners while they were online. Also, the current study has explored some mediational strategies which could foster their listening comprehension during the online interaction. To this end, the following research questions were examined:

- Is there any significant difference between the effect of online G-DA and NDA on L2 learners' listening comprehension?
- Is the effect of online G-DA and NDA on L2 learners' listening comprehension retained over time?
- What types of mediational strategies during online G-DA will nurture the development of listening comprehension?

3. Method

3.1 Participants

To achieve the purpose of this study, the non-random purposive sampling method (Mackey & Gass, 2005) was applied. To this end, two intact upper-intermediate classes in a private language institute in Isfahan, Iran, were selected. They consisted of 60 female Persian native speakers in the age range of 18-24. They had taken English for approximately 3 years in the institute and none of them had the experience of travelling to any English speaking countries. Initially, based on their performance on the Oxford Placement Test (OPT, Allan, 1992), 47 EFL learners whose scores fell within the range of upper-intermediate from the two classes were selected in this study. Then, one class was considered as the experimental group ($n = 23$) and the other was considered as the control group ($n = 24$). The present study had a quasi-experimental design in which complete randomization was not possible.

3.2 Instruments and materials

Several instruments and materials were employed for data collection. In order to ensure the participants' homogeneity in terms of prior L2 knowledge, OPT (Allan, 1992) was administered at the beginning of the program. This version consists of two parts, namely listening and grammar items. In this test, all the questions were in multiple-choice format and each correct answer received 1 score.

A TOEFL listening test (2003) was administered as the pretest and posttest, and another version of TOEFL listening test (2003), which was a parallel form, was used as the delayed posttest in the study to assess the participants' listening comprehension proficiency. Each test comprised 50 multiple-choice items. In each version of the TOEFL listening test, the EFL learners had an opportunity to listen for the gist of a whole extract, a particular detail, and the speaker's opinion to demonstrate his/her ability. Each version of the TOEFL listening test was

piloted to ensure its reliability and validity. At this stage, 20 upper-intermediate L2 learners whose general characteristics were similar to the participants in the current study were selected. In the piloting procedure, they took the tests. The two forms of the test enjoyed a good reliability estimate ($\alpha = .77$ and $\alpha = .78$), using Cronbach's alpha. The content validities of the tests were determined through experts' judgments and pilot-testing to ensure that the tests were carefully and accurately planned to include the required listening items. The experts qualified the content of the tests. However, they suggested some modifications to be made in the items of the tests. Also, a relationship was established between the scores of each test and those of another standard listening test, *First Certificate English* (FCE, version 2016; see Appendix). Thus, after giving the TOEFL tests to the participants for piloting the test, the Listening section of FCE test was given to them. Due to the results, Pearson product-moment correlation coefficient between the two tests was high (above .85).

Also, the participants' performance on the pretest revealed, to some extent, their main source of difficulties in L2 listening comprehension. Accordingly, six listening tasks followed by some comprehension questions were selected for the enrichment program sessions in order to uncover the mediational strategies which could nurture the development of listening comprehension during online G-DA. In this study, both groups took the pretest, posttest, and delayed posttest in online platform. All the participants were ensured to have Skype. At first, the introduction session was held before the instruction began, and all the participants came to an agreement about the times at which they needed to be online simultaneously for the instruction twice a week. To capture all the mediational strategies provided by the mediator i.e. the instructor, each online session was videotaped and audiotaped. Then, all the interactions were transcribed to determine the types of mediational strategies which were employed during interactions.

3.3 Procedure

This quasi-experimental research had a control group pretest posttest design. A sample of 60 EFL learners registered for the high intermediate-level English classes in a language institute in Isfahan, Iran. They could be accessed by the one of the present researchers. To further ensure the homogeneity of the EFL participants, the OPT (Allan, 1992) was administered to the EFL learners. Several EFL learners who had extreme scores were excluded from the study. The main participants comprised of 47 EFL learners in two groups: the experimental ($n = 23$) and control ($n = 24$) groups. After the administration of the OPT at the beginning of the program, the TOEFL test was given to the participants in both experimental and control groups as the pretest to assess their independent performance.

Following the administration of the pretest in the non-dynamic format, the mediator i.e. the instructor, in the experimental group diagnosed the learners' main source of problems in listening comprehension and, consequently, selected the appropriate listening tasks for the enrichment phase. To address the learners' recurring problems, the enrichment phase was offered for a period of 3 weeks. During three successive weeks, the experimental group received mediation while listening to texts in six sessions twice a week. In each session, the participants first took the listening task individually, which reflected unmediated performance. Then, they performed the listening task through online G-DA procedure to capture their mediated performance. Upon their failure to recall the content of the text, the fine-tuning mediation was offered to the participants to help them promote their performance. Also, the mediator dialogued with the entire group in response to their problems. Moreover, using encouraging expressions, the mediator tried to encourage the participants to have active participation in the interaction. In order to discover the types of mediational strategies that could foster the L2 learners' listening comprehension, each dynamic administration of the online tasks was recorded, transcribed, and coded. Thematic analysis was used to code the types of mediational strategies and the participants' responses to the mediations.

On the other hand, the participants in the control group did not receive any mediation while they took the tests online. They just listened to the six listening texts and answered the multiple-choice questions. In other words, they were evaluated only on the basis of their independent listening performance. In week five, the

TOEFL test was administered again as a posttest to both the experimental and control groups to compare their performance on L2 listening comprehension. Then, after an interval of two weeks, the second version of the TOEFL test was administered as a delayed posttest to understand the extent to which the students could retain the effect of G-DA over time in a new test. The scoring procedure for all tests, used in this study, was dichotomous. Therefore, each correct answer received one score and each incorrect answer received null. Besides, the scores could range from 0 to 50. The mediational strategies were used in this study were taken from Aljaafreh and Lantolf (2011) and Brown (2015). The strategies were arranged from the most implicit to the most explicit and were offered to the participants out of interaction between the mediator and the participants in response to their needs.

4. Results

4.1 Quantitative data analysis

Descriptive statistics were, first, calculated to have a general description of the data and to examine the similarities and differences between the two groups of the participants. The results are summarized in Table 1.

Table 1

Descriptive statistics of control and experimental group

Group	Test	<i>N</i>	Min	Max	Mean	<i>SD</i>	Skewness	Kurtosis
Control	Pretest	24	13	37	25.75	7.53	-0.33	-1.20
	Posttest	24	16	38	27.17	7.00	-0.04	-1.28
	Delayed	24	15	38	27.92	7.48	-0.26	-1.17
Experimental	Pretest	23	14	33	24.35	5.93	-0.24	-1.04
	Posttest	23	21	44	32.43	6.63	-0.14	-1.16
	Delayed	23	25	46	36.57	6.76	-0.33	-1.24

As Table 1 illustrates, the pretest mean scores in two groups were not different from each other very much, but the mean scores of two groups showed a greater difference in the posttest and delayed posttest. The highest mean scores in the posttest and delayed posttest, in the experimental group, belonged to the instruction they received during online G-DA. Also, the data showed that the mean scores increased from the posttest to the delayed posttest, indicating the better performance of the experimental group after online G-DA. Moreover, the results revealed that the two groups' data were almost normally distributed. That is to say, approximately two-thirds of the scores fell within one standard deviation above and below the mean.

A one-way between-groups analysis of covariance (ANCOVA) was conducted to answer the first question of study and compare the effectiveness of G-DA and NDA approach on participants' listening comprehension. The independent variable was the type of intervention (G-DA and NDA), which named as Group in the analysis. The dependent variable was the participants' scores on the posttest. The participants' scores on the pretest were used as the covariate in this analysis to control for preexisting listening differences between the groups (Pallant, 2010). Also, preliminary checks were conducted to ensure that there was no violation of the assumptions of normality, linearity, homogeneity of variances, homogeneity of regression slopes, and reliable measurement of the covariate. Besides, independent sample *t*-test showed that there was no significant difference in the scores of listening comprehension for the experimental ($M = 24.35$, $SD = 5.93$) and control ($M = 25.75$, $SD = 7.53$) groups at the pretest phase, $t(45) = -.70$, $p = .480$, two-tailed).

As demonstrated in Table 2, the ANCOVA results revealed a significant effect for Group, $F(1, 44) = 167.38$, $p < .05$, partial eta squared = .79. This indicates that there were significant differences between the posttest mean scores of two groups. According to Cohen (1988), a partial eta squared of .79 represents a large effect size, meaning that 79% of the variance in the obtained posttest means is explained by the type of instruction.

Table 2*ANCOVA results for groups' listening development*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	2495.51	2	1247.75	377.75	.000	.94
Intercept	56.76	1	56.76	17.18	.000	.28
Pretest 1	2143.27	1	2143.27	648.87	.000	.93
Group	552.90	1	552.90	167.38	.000	.79
Error	145.33	44	3.30			
Total	43927.00	47				
Corrected Total	2640.85	46				

Furthermore, a mixed between-within subjects ANOVA was conducted to answer the second research question and assess the impact of two different interventions on participants' scores on listening test across three time periods. The listening comprehension scores at each time period were considered as the dependent variable, the two groups receiving different types of intervention were regarded as the independent between-subject variable, and time was considered as independent within-subject variable in the statistical analysis. The mixed ANOVA results are presented in Tables 3 and 4.

Table 3*Tests of between-subjects effects for groups' listening development*

Source	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	1	117470.87	834.84	.000	.94
Group	1	710.62	5.05*	.030	.10
Error	45	140.71			

Note. * $p < .05$.

Table 4*Tests of within subjects effects for groups' listening development*

Source		Mean Square	df	F	Sig.	Partial Eta Squared
Time	Sphericity Assumed	569.84	2	299.27	.000	.86
	Greenhouse-Geisser	646.16	1.76	299.27	.000	.86
Time*Groups	Sphericity Assumed	351.07	2	184.38	.000	.80
	Greenhouse-Geisser	398.09	1.76	184.38	.000	.80
Error	Sphericity Assumed	1.90	90			
	Greenhouse-Geisser	2.15	79.36			

As, Table 3 illustrates, the main effect for comparing the two types of intervention was significant, $F(1, 45) = 5.05$, $p = .030$, suggesting the effectiveness of G-DA on listening comprehension development over time. The partial eta squared value for group as a between-subject variable was about .10, suggesting approximately a large effect size when time was considered. Moreover, according to Table 4, there was a significant difference among groups across time (from the pretest to the posttest, and delayed posttest), $F(2, 90) = 299.27$, ($p < 0.05$).

To put the statistical account presented above in a simple way, a summary of the results is graphically depicted in Figure 1.

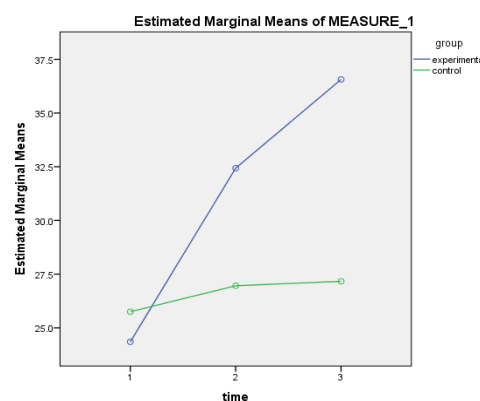


Figure 1. Estimated marginal means for groups over-time listening development.

Figure 1 illustrates the better performance of the experimental group over the control group in their listening comprehension performance in the posttest and delayed posttest. The control group had a higher mean score than the experimental group, but the mean score differences were less in the pretest phase. As mentioned above, the *t*-test showed that this small difference was not significant. However, the mean score differences were greater in the posttest and delayed posttest and listening comprehension of the participants in the experimental group improved more.

4.2 Qualitative data analysis

Thematic analysis of qualitative data revealed 13 mediational strategies. They included: (1) Confirming response, (2) Rejecting response, (3) Replaying, (4) Repeating the erroneous guess with a questioning tone, (5) Inferring situations using real world knowledge, (6) inferring links and connections between events, deducing causes and effects, (7) Recognize the communicative functions of utterances, according to situations, (8) Detecting the key word, (9) Guessing the meaning of words from context, (10) Using facial features, kinesics, body language, and other nonverbal clues, (11) Distinguish between literal and implied meaning, (12) Using dictionary, (13) Providing correct response and explanation.

The following exchanges portray the upper-intermediate EFL learners' listening performance across different assessment sessions (i.e. pretest, posttest, delayed posttest). The exchanges are examples to illustrate the learners' developmental path and demonstrate their enhanced ability in the familiar and innovative context.

In exchange 1 below, taken from a listening task done in the experimental group, the most implicit strategy of "accepting response" was used. For example, in line 5, following the participants' accurate recalls, the instructor provided the strategy of accepting response to indicate the appropriateness of their responses. This strategy removed the doubt of the participants when they were uncertain about the correctness of their response. Also, it offered affective scaffolding and motivated the silent participants to take part in the conversation. In lines 5, 14, 16, 18, 26, 29, and 31, the strategy of "accepting response" was used by the mediator to encourage them whenever they responded correctly. For example, in line 14, the instructor' affective scaffolding motivated the participants to sustain and further the cooperation. Likewise, the implicit strategy of "rejecting response" was observed in lines 7 and 20. In line 7, the instructor provided the rejecting response in response to an incorrect recall in line 6. This strategy informed the participants that something was wrong in their recalls and, at the same time, encouraged them to attempt again.

Another implicit strategy was "the replaying strategy". In lines 8 and 20, the mediator invited the class to listen again the whole part of the text and helped them regulate their thoughts. It was an opportunity for the participants to reattempt independently. In line 10, the mediator tried to help them understand their problems by saying the erroneous guess questioningly; this led to a successful correction on the part of the participants. When one form of support was not effective, mediation became more explicit. This exchange also revealed how the mediator made use of the mediational strategies of "inferring situations using real world knowledge" as well as "inferring the connection between events" in order to move the group forward in listening comprehension (line 22). Moreover, facing with the silence of the participants (line 23), the mediator realized the strategy of "inferring the connection between events" was also inefficient. Therefore, she provided a more explicit strategy and talked about the function of the utterance (line 24). During the interaction, the mediator encouraged the participants to engage in joint activity and benefit from co-regulation.

Exchange 1

1. M: Let's continue.
2. L: He asked where did you stay?
3. L: With my friends...
4. L: Friends of my parents.
5. M: Good.
6. L: She worked on a paper at the beach.

7. M: No.
8. M: Let's listen again. [The conversation was replayed again.]
9. L: I think that she worked on a paper at the beach.
10. M: Worked on a paper at the beach?!
11. L: [Silent]
12. L: She had a paper...
13. L: But she couldn't study at the beach.
14. M: Excellent.
15. L: Any serious study at the beach.
16. M: Exactly
17. L: Then, she talked to him about playing volleyball.
18. M: Good. Else?
19. L: Running sad
20. M: No, Listen again. [The conversation was replayed again.]
21. L: It was hard to run sad.
22. M: Not running sad. But, she is talking about a hard situation during the game. You can see the connection between two sentences... Any idea?
23. L: [Silent]
24. M: Consider the function of this sentence. She is talking about playing volleyball. She continues with a hard situation ...
25. L: Yes, she said that I couldn't get through a whole game.
26. M: Very good.
27. L: But, why did the woman have to stop playing in the volleyball game?
28. L: Running in the wet sand was easier.
29. M: Excellent, but this is the next sentence.
30. L: Aha, she played volleyball and said I never realized how hard it is to run on sand.
31. M: Excellent. Ok, go on.

Exchange 2 below shows how the strategies of “detecting the key words” and “guessing the meaning of words from context” operate. These strategies were implemented when the mediator observed the participants were not able to understand the meaning of the text even after offering some implicit strategies. Engaging the participants in a shared understanding of the meaning of the text moved the group forward in its ZPD by focusing on the individual' development. For example, by directing their attention to the key word of “waded” in line 12, the mediator tried to help them guess its meaning from context which resulted in successful answer. In addition, in line 19, the mediator used facial features, kinesics, body language, and other “nonverbal clues” as a strategy to decipher the segment which did not take into account by the participants.

Exchange 2

1. L: The man said did you go swimming?
2. M: Good.
3. L: She said that I wanted to ...
4. L: But ...
5. L: The weather wasn't warm.
6. L: The water wasn't warm.
7. M: Yes. So, what did she do?
8. L: [Silent]
9. L: Waded ... I cannot remember all the sentence.
10. M: Good. Help her.
11. L: [Silent]
12. M: Nazanin recognized the key word of this sentence. That is waded. What does it mean?
13. L: Wade means enter an argument without thinking about the results.
14. M: You're right. But here it has another meaning. You can infer it from context....
15. L: Walk
16. L: Walk through water.
17. M: Excellent.
18. L: The water was not warm to swim so she waded in the water.
19. M: [Using facial features, kinesics, and body language]
20. L: Ta zanoo

21. M: Ahhan. In English?
22. L: To her knees.
23. M: Up to her knees.

In exchange 3, the mediator benefited more from the strategy of “distinguishing between literal and implied meaning”. This strategy was necessary for the participants to distinguish the semantic meaning from the pragmatic meaning. For instance, in line 8, following the understanding of literal meaning, the mediator made use of this strategy and tried to help the participants extract the implied meaning of each sentence.

Exchange 3

[Would you like to come mountain climbing with us? Thanks, but that’s the last thing in the world I would want to do. What does the man mean?]

1. M: What does the man mean?
2. L: Mountain climbing was the last thing he did.
3. M: No.
4. L: [Silent]
5. M: Listen again. [The conversation was replayed again.]
6. L: The last thing he will do in the world is mountain climbing.
7. M: Ahan, very good, it is the last thing he wants to do in the world.
8. M: But this is the literal meaning of this sentence. what do you imply? What is the meaning behind it?
9. L: Maybe he has a program for going out. And this is the last one.
10. L: It is the last one because he doesn’t like to go now.
11. M: Ahan.
12. L: He is not interested in it.
13. M: Excellent.

The most explicit mediational strategies used in this study were “using dictionary” and “providing correct response and explanation”. They were implemented when the mediator realized other mediational strategies were not useful in guiding the learners to recall the gist of listening text. In the exchange 4, the mediator found out the inability of the learners in understanding the meaning of the phrase “got off the ground”. This phrase was completely new and beyond their ZPD. Therefore, the meaning and explanation were explicitly offered to move the class to a higher level of ZPD (line 19).

Exchange 4

[Weren’t you trying to get us all together for a picnic this weekend? It never really got off the ground. What does the woman say about the picnic?]

1. M: What does the woman say about the picnic?
2. L: She said that I never really got up ...
3. M: Got up?!
4. L: Got up the ground.
5. L: Got off the ground?
6. M: Very good.
7. M: What does it mean?
8. L: [Silent]
9. M: Guess it from context.
10. L: She doesn’t want to go to picnic.
11. M: No.
12. M: You can check it in the dictionary.
13. L: Leave?
14. M: No.
15. L: What does it mean here?
16. L: She doesn’t know anything about it.
17. M: No, others?
18. L: [Silent]
19. M: She wasn’t able to organize it ...

5. Discussion

The results revealed that both groups showed an increase in listening scores across each time interval, but the results were in favor of online G-DA approach. As shown by, the mean scores of the participants in the experimental group demonstrated more increase from the pretest to the posttest, compared to the control group. Their improved scores on the posttest could mainly be due to the mediation offered during online G-DA procedure. In addition, the analysis of the mediation required by the participants during the dynamic administration of six listening tasks in the enrichment phase also revealed the reduction of explicit mediational strategies. In other words, they required less mediational support on the listening task 6, as compared to the listening task 1. However, during the interaction, they might need a more explicit prompt in order to cope with difficulties they encountered in the listening tasks. This type of analysis also revealed the effectiveness of providing mediational moves in promoting the listening comprehension of the upper-intermediate EFL learners. Moreover, this observation showed the participants' progression as well as regression to the earlier stages of development in their responses to mediation. In addition, toward the final sessions of the enrichment phase they showed more progression moves. This indicates they moved from collaborative intermental activity to autonomous intramental activity (Marsden et al., 2013).

It was revealed that the participants' ability to recognize the listening text with implicit types of mediation was observed in the posttest. Besides, the observation provided support for enhancement of the participants' independent performance in a new listening task (delayed posttest). The improvement revealed itself in reducing the need for explicit mediation and even in increasing the independent recalls. It highlighted the importance of collaborative work because within the participants' ZPD, they used their existing knowledge to develop what they had not yet mastered independently (Nassaji & Swain, 2000; Nassaji & Tian, 2010). In this way, they were capable to solve similar problems on another similar listening test (delayed posttest). This process is what labeled internalization in Vygotskian terms. Therefore, as the mediations were appropriated or internalized, the participants were able to function independently on delayed posttest listening test. Moreover, the quantitative data analysis showed that the standard deviation of the posttest had considerable variation, indicating that the participants in the G-DA group were not at the same ability level in the posttest phase. This is in accordance with previous findings (see Ableeva & Lantolf, 2011; Kozulin & Garb, 2002; Poehner & Lantolf, 2013; Shahraki et al., 2015), indicating that some participants benefited more in response to the mediations received during the treatments.

The effectiveness of G-DA in listening comprehension performance in this study finds support from the previous research (see, Alavi et al., 2011; Shabani, 2014; Shahraki et al., 2015), in which the mediational strategies revealed the micro-genetic growth of the participants' listening comprehension. Previous research emerged from the mediator's interactions with a group of learners in the classroom setting but the research developed here is the result of interaction in online setting. This study concerns the observation of extra-linguistic mediations as a significant contributor to listening comprehension. Likewise, extra-linguistic mediations are what have been confirmed in the literature on listening comprehension (Alavi et al., 2011; Buck, 2001; Nunan, 2002; Vandergrift, 2004).

The results of thematic analysis revealed the strategy of "Confirming response"; "Rejecting response"; "Replaying"; "Repeating the erroneous guess with a questioning tone". Offering these mediational strategies engaged them in group discussion and helped them monitor, evaluate, and regulate the activities of other participants (Lantolf & Poehner, 2014). This is closely aligned with the first-order mediation, asserted by Karpov and Haywood (1998, as cited in Lantolf & Poehner, 2014), as metacognitive mediation which originates in interpersonal communication and leads to the development of self-regulated listening comprehension.

"Inferring situations using real world knowledge", "inferring links and connections between events, deducing causes and effects", "Recognizing the communicative functions of utterances, according to situations" were other mediational strategies used in this study. According to (Berne, 2004), with increasing the levels of

proficiency, the participants relied more on information provided by the context. In this study, these strategies were useful in promoting the participants' listening comprehension. As Nunan (1999) states, the participants reconstructed the original meaning of the speaker using incoming sounds as clues. "In the reconstruction process, they used prior knowledge of the context and situation within which the listening takes place to make sense of what they heard" (p. 201). Therefore, the strategies distinguished more- and less- proficient participants during listening comprehension tasks.

The mediator used the strategy called "detecting the key word" which directed the participants' attention to the entire message of the text rather than concentrated on specific words and phrases. Besides, the strategy of "guessing the meaning of words from context" helped them embed the utterance in the social context. It was a suitable construct for extracting the meaning of the context. Another strategy was "using facial features, kinesics, body language, and other nonverbal clues" to decipher meaning through which the mediator added support, emphasis, or particular shades of meaning to what the participants were saying (Richards & Schmidt, 2002). Following the understanding of literal meaning, the mediator made use of the strategy of "distinguishing between literal and implied meaning" in order to help the participants arrive at the conversational implicature in which the meaning was derived from a general principle of conversation together with a number of maxims which is a general approach to the study of meaning and communication (Grice, 1975, as cited in Levinson, Stephen, & Levinson, 2000).

The most explicit mediational strategies used in this study were "using a dictionary" and "providing correct responses and explanations". They were implemented when the mediator noticed the inability of the participants in recalling the gist of the text. Therefore, she provided the correct answer to remove their problem areas and move the class' ZPD into a higher level of functioning (Poehner, 2008).

6. Conclusion and implications

In summary, the current study adds to the growing literature on DA indicating the significant role of online G-DA in the development of listening comprehension at the upper-intermediate level. According to the results, all the learners in the experimental group demonstrated the highly significant increased listening scores in the posttest, as compared to the control group. Therefore, the findings of the present study could pave the way for the experts in the field to distinguish the EFL learners who received online G-DA approach from the EFL learners who received NDA approach. Moreover, the results of thematic analysis revealed the types of mediational strategies which nurtured the development of the participants' listening comprehension. Besides, the findings of this study supported the positive role of online G-DA approach over time. The more effective role of this approach in listening comprehension could be due to the scaffolding throughout the entire listening process, wherein the participants shared their ideas to achieve common listening comprehension knowledge. This might be the reason why its effect was retained over time in the delayed posttests. In short, the quantitative and qualitative findings provided additional support for Vygotsky's theory regarding the leading role of social interaction in development because cognition emerged through engagement with others. According to this theory, new cognitive functions appeared, first, on intermental plane, then, on intramental plane (Poehner, 2009).

Moreover, the noticeable development of the participants evidenced the critical role of task in listening development. According to Ellis (2003), listening tasks were instruments of cognitive change in the sense that during collaborative dialogue the EFL learners co-constructed an activity that promoted listening development. This development is achieved out of talk through a movement from object- to other- and finally to self-regulation. In other words, listening tasks provided opportunity for EFL learners to construct collaborative acts and appropriate ZPDs, wherein they manifested new comprehension in interaction with others and subsequently internalized it so that they could use it independently (Ellis, 2003).

The findings derived from the current study may suggest some pedagogical implications. In general, the findings of this study could be applicable in almost every L2 setting where the aim of teaching and learning a

language is to communicate efficiently. More specifically, online setting can offer special opportunities to assist L2 learners in development of listening skill. Instructors can benefit from virtual communication environment to integrate instruction and assessment through offering mediational strategies so that they introduce new concepts and provide additional instruction on content previously covered. Eventually, this approach leads to the emergence of various strategies based on learners' needs when they are involved in a joint activity during the interactionist approach of online G-DA. Therefore, it is suggested involving L2 learners in online joint activities even a paired work and offering them appropriate strategies from implicit to explicit in their ZPD can help them promote higher levels of functioning.

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Appendices

FCE Listening Test

Part 1

Direction: You will hear people talking in eight different situations. For questions 1-8 choose the best answer.

1. You overhear two people talking in a restaurant. Where has the woman just come from?
 - A. A supermarket
 - B. A hospital
 - C. A football match
2. You hear a man talking about a mobile phone he has bought. What most attracted him to this phone?
 - A. Its size
 - B. Its reliability
 - C. Its price
3. You hear a man talking on the phone about buying a house. What is the purpose of his call?
 - A. To apologize
 - B. To complain
 - C. To obtain information
4. You hear a teenager girl talking about her hobby. What is she talking about?
 - A. A computer game
 - B. A musical instrument
 - C. A piece of sport equipment
5. On the news you hear a story about a cat. Where was the cat found?
 - A. In a train carriage
 - B. On the railway lines
 - C. On a station platform
6. You hear a woman talking about how she gets ideas for her work. Who is the woman?
 - A. A novelist
 - B. An artist
 - C. A film-maker
7. You hear two people talking. How does the woman feel?
 - A. Surprised
 - B. Satisfied
 - C. Relieved
8. You turn on the radio and hear a man speaking. What are you listening to?
 - A. A history program
 - B. A science fiction story
 - C. An advertisement

Part 2

Direction: You will hear a radio interview with a woman who is organizing a training weekend for people interested in the theatre. For question 9-18 complete the notes.

When:	Beginning of ...9.....
Content:	Saturday-two groups run by professionals Subjects: ...10..... or directing Sunday-two groups Subjects: make up or press and 11.....
Where:	mostly ...12..... (at the theatre)
Cost:	whole weekend course (if booked): ...13..... (included lunches)
Course Leaders:	have training as ...14.....
Main age group:	...15.....
Last year's training day:	concentrated on ...16.....
How to apply:	name of person to phone: Claire ...17.....
Official position of person:	...18..... (at the theatre)

Part 3

Direction: You will hear five different students who are studying away from home. They are talking about their accommodation. For questions 19-27 choose from the list (A-F) what each speaker says about their accommodation. Use the letters only once. There is one extra which you do not need to use.

- | | |
|--|----------------------|
| A. I made a mistake there at first. | Speaker 119... |
| B. I was able to settle into a new area. | Speaker 220... |
| C. I had no choice in the matter. | Speaker 321... |
| D. I have recommended it to others. | Speaker 422... |
| E. There are more benefits than disadvantages. | Speaker 523... |
| F. I would prefer to have more freedom. | |

Part 4

Direction: You will hear part of a radio interview in which Tina White, a magazine editor, talks about her life and work. For questions 24-30, choose the best answer (A, B, or C).

24. In her first column, Tina chose to write about people who
- A. Were very well-known
 - B. Had interesting ideas
 - C. Lived in luxury
25. She took up journalism because of
- A. Her family connections
 - B. Her father's support
 - C. Her love for books
26. Under her management, the magazine female focus
- A. Reduced its losses
 - B. Changed its image
 - C. Made a profit
27. She believes people are more likely to read an article if
- A. It has a good beginning
 - B. Its content is challenging
 - C. It is mentioned on the cover
28. When she started her present job five years ago, she
- A. Organized her ideal team
 - B. Had more time to read everything
 - C. Lacked confidence in her staff
29. Tina says that she would be worried if she
- A. Was criticized by the public
 - B. Lost the respect of colleagues
 - C. Lost her job
30. In the future she would like to
- A. Be a book editor
 - B. Produce a film
 - C. Write fiction

