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Mediational Strategies in a Dynamic Assessment Approach to L2 Listening Comprehension: Different Ability Levels in Focus¹

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Abstract

The present study is an attempt to shed light on the mediator-learner's interaction in the development of listening comprehension skill and compare this interaction between high and low proficient L2 learners of English. 30 L2 learners participated in Oxford's Quick Placemat Test and the Interactions/Mosaic Listening Placement Test to select those whose proficiency levels and listening skills were based on the placement guide of the tests, at upper-intermediate and advanced levels. Out of thirty students, 12 learners (advanced level=6, upper-intermediate=6) volunteered to participate in individualized tutoring sessions. Learners listened to the listening items and answered the item(s) individually. Upon the learner's failure to answer the item, the mediator intervened and provided mediation. Mediation was provided using the interactionist approach. The qualitative data were then coded in terms of task completion along with errors and struggles to indicate the quantity and quality of mediation happened throughout the Dynamic Assessment (DA) intervention. Qualitative comparisons were made between the two ability levels on the type of mediation required at these two ability levels. Quantitative comparisons were made to find out learners' Zone of Actual Development (ZAD), Zone of Proximal

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Development (ZPD), Gain Score (GS), and Learning Potential Score (LPS). Findings of the study revealed that DA mediation resulted in the development of the listening comprehension ability of advanced and upper-intermediate learners. The ability level of the learners was not, however, a determining factor in enhancing the development of the listening comprehension ability of learners at two ability levels. A close qualitative analysis of all the mediated interactions revealed that twenty-five mediational strategies were identified that promoted the development of listening abilities of advanced and upper-intermediate level learners. It is also revealed that the upper-intermediate learners required more mediational support as compared to the advanced learners.

Keywords: mediation, dynamic assessment, ZPD, proficiency level, listening.

1. Introduction

The last decade has witnessed an urge and accordingly a surge of interest in the diagnostic type of language assessment. Lee argued that 'assessment should be geared toward identifying learning potentials and promoting further learning beyond what the test-takers currently know or are able to do' (2015: 2). In designing diagnostic testing instrument, the quality of feedback and the essence of remedial activities, thus, have paramount importance (Alderson, Brunfaut, Harding, 2014; Harding, Alderson, Brunfaut, 2015). One manifestation of diagnostic assessment can be found in Dynamic Assessment (DA) of learners' development (Poehner, 2005; Ableeva, 2010).

DA roots in Vygotsky's Sociocultural Theory of mind (SCT). Vygotsky's sociocultural theory of human learning and development describes learning as a social process, and that human intelligence originates in society or culture. By emphasizing the role of social interaction in the development of cognition, this theory argues that social interaction precedes development. According to this theory, consciousness and cognitive development are the result of socialization and social behavior. Vygotsky focused on how people connect with the sociocultural context and believed that human use tools such as speech to mediate their social environment. He claims that in the early stages of cognitive development, the child is totally dependent on his/her parents who are representative of the culture. The parents instruct him/her in how to behave and familiarize him/her with the culture primarily through the use of language. According to Vygotsky (1987), everything is learned on two levels: initially, through having interaction with others, i.e., interamental, and then it is integrated into individual's mental structure, i.e., interamental.

The cornerstone of Vygotsky's perspective is Zone of Proximal Development (ZPD), along with Zone of Actual Development (ZAD). ZAD indicates an individual's independent performance, as is the case in most

forms of assessment. To Vygotsky, ZAD does not demonstrate the individual's potential ability and the latent process of learning. ZPD, on the other hand, 'reflects what learners' can do under guidance of teachers and comprises those cognitive functions that are not yet fully developed but are in the process of maturing' (Ableeva, 2010: 7). There are two primary approaches to DA: interventionist and interactionist. The interventionist approach to DA is informed by Vygotsky's quantitative interpretation of the ZPD as a 'difference score' (Poehner, Lantolf, 2005). It lends to a more formal and standardized mediation of learners in either forms of pretest/treatment/post-test, namely sandwich format, or a set of pre-fabricated prompts provided item-by-item, namely cake format. On the other hand, interactionist approach to DA is informed by Vygotsky's qualitative interpretation of the ZPD. The interactions approach encompasses an openended qualitative collaboration between mediator and learner. The prompts/hints/feedbacks are not designed a priori but they arise from mediated dialogue.

Through DA, learners are engaged in collaboration during the assessment procedure. Leading questions, prompts or hints are offered increasingly, and are withheld when appropriate. Therefore, gradually an individual reaches his/her potential ability with the help of a skilled peer. Thus, his/her ability to accomplish more difficult tasks is progressively increased on account of several internalizations. By the help of mediation, therefore, examiner and examinee cooperate effectively on an assessment task. This helps the examinee to move on to the next level of his/her ZPD (Vygotsky, 1987). In general, by offering mediation to the learner during the assessment, DA introduces a salient distinctive feature from other classroom assessment practices. However, the study of literature reveals that research employing this useful method on instruction and assessment of L2 listening comprehension has been quiet rare (Ableeva, 2010; Khoshsima, Izadi, 2014). Moreover, Poehner (2008) argues that in order to achieve top-quality mediation and to gain insights into learners developing abilities in the ZPD, mediator-learner interactional moves should become more predictable in the dialogic approach of DA. Accordingly, discovering patterns of teacher mediation and learner reciprocity acts in an interactionist model of DA on L2 listening comprehension will help educators be more prepared in mediating activities. This also helps them to take more systematized steps toward a better understanding of learners' potential level of development in specific context of situation. It will also help teachers to prepare themselves for the spontaneous situations of the interactional mediation. This way they can be directed to provide the optional feedback that is needed to engender learner agency in assessment practices of listening comprehension (Ableeva, 2010;

Poehner, 2005). In this regard, the present study aimed to explore the mediator-learner's interaction to discover the pattern of mediation in listening comprehension.

2. Literature review

In the interactionist approach to DA, assessment takes place through flexible and cooperative instructions between the mediator and the learner (Sarani, Izadi, 2016). According to Poehner (2008), the quality of mediation and learners reciprocity moves are the crucial issues to be considered particularly in the interactionist model where the mediation is not scripted in advance. The mediation should move in a direction from the most implicit interventions to the most explicit ones in order to generate learner self-regulation. On the other hand, the learner should take steps toward being more autonomous during the mediation. Therefore, it is essential to pay attention to the changes in reciprocity moves since they augment learner's developing abilities.

Providing mediation, the mediator should not identify errors explicitly, nor should s/he provide the learner with the correct answer. Instead, the mediator must give room for self-correction, ask questions, request for verification/clarification, make reference to a previous problem, and provide the learner with alternate clues/prompts/forms/hints/suggestions. The mediator is to commence the mediation offering implicit assistance and if the learner is not able to spot and correct his/her error, s/he must continue assisting him/her with his/her ZPD by resorting to more explicit mediational moves, which may reveal the nature of the problem (e.g., compare 'Can you explain that again?' with 'Let's start using present perfect tense.'). Mediation cannot be offered in a haphazard manner no matter how it is offered, but rather must be gradual, contingent (Aljaafreh, Lantolf, 1994), and 'tuned to those abilities that are maturing, and as they mature further as a consequence of mediation, the mediation itself must be continually renegotiated' (Poehner, Lantolf, 2005: 260). In other words, mediational moves must be systematic, that is, attuned to learner's needs and abilities, graded in terms of explicitness, and consistent.

In DA literature, a number of mediational inventories have been proposed including Carney and Cioffi (1990), Lidz (1991), Aljaafreh and Lantolf (1994), Poehner (2005), Ableeva (2010), Shrestha and Coffin (2012), and Alavi, Kaivanpanah, and Shabani (2012). We limit our review to mediational inventories proposed by Aljaafreh and Lantolf (1994), Poehner (2005), and Ableeva (2010), which are the most prominent inventories derived

for L2 investigations. According to Poehner, Zhang, Lu (2015), the pedagogical application of DA in these studies, serving as both an instructional and an evaluative tool, have the potential to open new horizons for teaching and assessment of L2 learning. Following a tutorial, one-on-one interactionist methodology, Aljaafreh and Lantolf (1994) studied English as a Second Language (ESL) learners' development of English tense, articles, prepositions, and modal verbs. Their assessment procedure included the process of jointly working out appropriate mediation to continuously assess the learners' needs and abilities and the tailoring of help to emergent needs. The mediator interacted with the learners in order to diagnose areas of difficulty and to help them gain control over the relevant structure. Wherever learners faced a problem, the mediator intervened and offered gradual feedbacks to help learners accomplish the task. Results of the study revealed significant development in learners' ZPD heading them to independent performance. Aljaafreh and Lantolf's analysis of the sessions did lead to a regulatory scale of implicit to explicit tutor's assistance that was outlined after the completion of the study. The scale consists of 12 types of feedback.

FIGURE 1. Regulatory scale-implicit (strategic) to explicit (Aljaafreh, Lantolf, 1994: 471).

- 0. Tutor asks the learner to read, find the errors, and correct them independently, prior to the tutorial.
- 1. Construction of a collaborative frame prompted by the presence of the tutor as a potential dialogic partner.
- 2. Prompted or focused reading of the sentence that contains the error by the learner or the tutor.
- 3. Tutor indicates that something may be wrong in a segment (e.g., sentence, clause, line is there anything wrong in this sentence?).
- 4. Tutor rejects unsuccessful attempts at recognizing the error.
- Tutor narrows down the location of the error (e.g., tutor repeats or points to the specific segment which contains the error).
- Tutor indicates the nature of the error, but does not identify the error (e.g., There is something wrong with the tense marking here.).
- 7. Tutor identifies the error (You can't use an auxiliary here.).
- 8. Tutor rejects learner's unsuccessful attempts at correcting error.
- 9. Tutor provides clues to help the learner arrive at the correct form (e.g., It is not really past but something that is still going on.).
- 10. Tutor provides the correct form.
- 11. Tutor provides some explanation for use of the correct form.
- Tutor provides examples of the correct pattern when other forms of help fail to produce an appropriate responsive action.

The authors' main assumption was that 'microgenetic development is evidenced wherever the negotiated feedback moves from the bottom to the top of the regulatory scale' (Aljaafreh, Lantolf, 1994: 471). The regulatory scale, further, enabled the mediator to track the learners' developing capability

(microgenetic growth) on the given grammatical points. According to Aljaafreh and Lantolf (1994), the quality and quantity of provided mediatory prompts differed across learners and as the study proceeded learners required less help and showed more self-correction and less dependence on the mediator and improved towards self-regulation.

Similarly, Poehner (2005) assessed L2 French learners' needs and abilities in a DA of oral proficiency. Learners were asked to construct a past-tense narrative in French after watching a short video clip. In time of struggles, Poehner offered hints, suggestions, leading questions or prompts. Poehner's typology of mediator's moves is presented in Figure 2.

FIGURE 2. Mediation typology (Poehner, 2005: 160).

- 1. Helping Narration Move Along.
- 2. Accepting Response.
- 3. Request for Repetition.
- 4. Request for Verification.
- 5. Reminder of Directions.
- 6. Request for Renarration.
- 7. Identifying Specific Site of Error.
- 8. Specifying Error.
- 9. Metalinguistic Clues.
- 10. Translation.
- 11. Providing Example or Illustration.
- 12. Offering a Choice.
- 13. Providing Correct Response.
- 14. Providing Explanation.
- 15. Asking for Explanation.

Poehner categorized the typology based on the function of the mediational moves in the context of an interaction into five major groups: managing the interaction (1, 2), reconsideration of performance (3, 4, 5, 6), identification of a problem (7, 8), overcoming the problem (9, 10, 11, 12), and probing for understanding (13, 14, 15).

Corresponding to Poehner's typology, Ableeva (2010) presented a mediational strategy outline from her study to diagnose/assess L2 learners' comprehension difficulties when listening to authentic audio texts. As with Aljaafreh and Lantolf's (1994) and Poehner's (2005), Ableeva's regulatory scale was developed *a posteriori* following the mediator's interactions with the learners to assess and enhance their listening abilities (Figure 3). Ableeva organized the strategies into five main categories: managing the interactions (1, 2, 3), helping the learners to reconsider their recall (4, 5, 6), helping the

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learners to overcome the problem (7, 8), enhancing listening comprehension and promoting L2 development (9, 10).

FIGURE 3. Mediational strategies (Ableeva, 2010: 260).

- 1. Accepting Response.
- 2. Structuring the text.
- 3. Replay of a passage; Replay of a segment (from a passage); Replay of a detail (from a segment).
- 4. Asking the Words.
- 5. Identifying a Problem Area.
- 6. Metalinguistic Clues.
- 7. Offering a Choice.
- 8. Translation.
- 9. Providing a Correct Pattern.
- 10. Providing an Explicit Explanation.

As it is shown, the mediation in interactionist DA is not designed *a priori*. Moreover, in order to be effective, the feedback has to be neither excessively implicit nor explicit. Therefore, the mediator may confront difficulties in providing feedback which stimulates learner self-involvement and prompts to become more autonomous (Poehner, 2008). Hence, in order to gain a better understanding of this facet, this study took up the objective of discovering the patterns of mediation (and learner's responses in a parallel study) in listening comprehension to outline more systematized (but not standardized) interactions between mediator and learner in the interactionist DA. Importantly, the study pursued the process of mediation with a focus on ability level (high and low proficient learners), an issue that has been missed in the current mediational typology.

3. The study

The overall goal of this study was to better capture and represent the mediator-learner's interaction in the development of listening proficiency. It is also aimed to statistically compare this interaction between high and low proficient L2 learners of English. The study adopted an interactionist DA approach and implemented a qualitative research methodology. Data were analyzed in order to reveal the frequency and quality, the two criteria to interpret the students' developments and ZAD/ZPD functioning, of mediator-learner's interaction. The amount and quality of mediation required for learners to comprehend the text were then reported in quantitative data. Statistical analyses were run to examine whether the ability level may affect the type of mediational moves presented to the learners.

4. Participants

The sample of the study was selected out of 30 learners learning English as a foreign language at a private language institute in Isfahan, the hometown of the researcher. In order to select the participants, a convenience sampling method was applied (Mackey, Gass, 2005) because they were the sample the researcher had access to. To this end, two classes (one upper-intermediate and one advanced) were selected. The 30 learners of the above-mentioned classes consisted of female and male students between 18 and 22 years old. The 15 learners of the upper-intermediate level class had taken English for approximately two years, and the 15 learners of the advanced level class had taken English courses for approximately three years in this institute. The learners had no previous exposure to English language except attending this English course and at their high schools.

Initially, the Oxford's Quick Placemat Test (OPT, Version 1, 2001) and the Interactions/Mosaic Listening Placement Test (IMPL) were given to the learners. The purpose was to select those whose proficiency levels and listening skills were based on the placement guide of the tests, at upperintermediate and advanced levels. Based on the results, 13 and 12 learners were identified as upper-intermediate and advanced participants, respectively. Then, the researcher participated in one of their regular classes in the institute and invited learners to participate in a listening comprehension class which would be held in two sessions. The purpose of the study was briefly explained and it was stated that the study aimed to investigate a new approach to assessing and improving learners' listening skill. It was also explained that the classes would be held in the form of individualized tutoring sessions. Out of 25 students, 12 students who could take the class based on the schedule of the study and institution volunteered to participate. In this way, six upperintermediate and six advanced L2 learners of English language participated in the study.

5. Instruments

Oxford Quick Placement Test (OQPT) was used to determine the exact level of the learners before recruiting the participants. The test is developed by Oxford University Press and Cambridge ESOL (2001) and has gone through Cambridge quality control procedures (Beeston, 2000). The test has two parts: Part one (1-40) includes grammar and vocabulary items and part two (40-60) contains multiple choice items and cloze test. The internal consistency of the test was reported as 0.9.

Interactions/Mosaic Listening Placement Test (IMLP) was administered to measure the listening comprehension ability of learners before recruiting the participants and to choose the appropriate-level listening tests from the series of Interactions/Mosaic Listening/Speaking books for the participants of the study. The test is developed by the McGraw-Hill ESL/ELT College as a placement test for the series of the books of Interactions/Mosaic Listening/Speaking (Tanka, Baker, 2008) to guide teachers and course managers to choose the appropriate-level book for their learners. The test consists of 50 questions in a multiple-choice format. Regarding the validity and reliably of IMLP, McGraw-Hill ESL/ELT College reported a high validity and reliabilities of 0.8 and above for the test.

6. Procedure

The design of the current study was grounded on the DA-based investigation of Poehner (2005) and Ableeva (2010) on learners of L2 French. This investigation on the DA approach to advanced and upper-intermediate L2 listening comprehension followed a two-phase procedure: test preparation and piloting and administration of the test.

6.1 Test preparation and piloting

First, the areas in which L2 learners had comprehension difficulty were pursued. Based on Poehenr (2005) and Ableeva (2010), the sources of problem in listening comprehension were identified as 1. phonological; 2. lexical; 3. syntactic; and 4. contextual and cultural (e.g. contextual inferencing, information seeking) areas. In this way, 30 listening text tasks were extracted from the book Mosaic 1 (for upper-intermediate level learners) and 30 listening text tasks were extracted from book Mosaic 2 (for advanced level learners). The reason we selected these books was that each book was appropriate for an ability level (upper-intermediate and advanced in this study) and the sources of the listening comprehension problem have been covered in these books.

The listening items were in the form of multiple-choice format and were based on factual information presented in the text. Since the study aimed to allow learners' multiple attempts to respond to each item and to be offered mediation (if any), one additional distractor was added to each item, bringing the total number of choices per item to five. In this manner, for example, when students re-attempted an item, the degrees of freedom would not be as limited as were the case in the more typical four-option format for multiple-choice questions. The tests were then piloted with 24 upper-intermediate and

24 advanced learners of English, having the same general characteristics as the participants in the study. The Cronbach's alpha revealed a high reliability of 0.83 and 0.82 for upper-intermediate and advanced levels, respectively.

6.2 Test administration

The investigation on the DA approach to advanced L2 listening comprehension ran in a one-on-one tutoring format in the two groups (i.e. upper-intermediate and advanced). The DA sessions took place during two weeks (one session per week) for each individual per group. The DA of the learners of all ability levels of this study in the classroom context was conducted as explained below. First, the learner listened to the audio and answered the item(s) individually. Upon the learner's failure to answer the item, the mediator intervened and provided mediation.

When there were errors or struggles for completing the task, the mediator provided hints for each individual item. Mediation was in form of assisting prompts offered from most implicit to most explicit. Since this study implemented an interactionist DA approach, the mediational support that the mediator offered was not pre-specified and emerged from the teacher's ongoing collaborations with learners. While the precise content of the moves differed across items, each move followed the same form of moving from most implicit to most explicit across all individuals. It should be noted that the mediation was provided in accordance with the specific context of mediator-learner interactions and the content of each item. The focus was on the aforementioned problematic areas. It also attempted to help the individuals adopting Mendelsohn's (2006) approach to listening using learning strategies and Macaro's (2001) learning strategic cycle.

To capture all the mediational support provided by the mediator (teacher), each dynamic administration of the tests of this study was videotaped and audiotaped. Then all mediator-learners interactions were transcribed to determine the type of mediational strategies given.

7. Data analysis

Thematic analysis (Guest, MacQueen, Namey, 2012) was used to code the mediational strategy provided as these could not be anticipated. The transcripts were analyzed mainly to inspect the interplay between the mediator and the learners with a major stress on L2 learners' listening self-regulation. In this way, the performances were analyzed on two levels: completion of the task itself along with errors and struggles and the amount and quality of mediation employed to assist the learners complete the listening item.

Through careful analysis, the most frequent patterns of interaction between the mediator and the learners were thus extracted. Once all mediating prompts required by the learners of all ability levels were coded and categorized, they were tallied and recorded in a spreadsheet to indicate the quantity and quality of mediation happened throughout the DA intervention.

In addition, the data were coded to statistically analyze learners' listening comprehension development in terms of task completion. If learners were able to respond correctly and complete the task without mediation, they scored 2; if learners were able to respond correctly and complete the task after meditation(s), they scored 1; and if learners were not able to respond correctly and the instructor provided the correct answer, they scored 0.

Qualitative comparisons were made between the two ability levels on the type of mediation required at these two ability levels. Quantitative comparisons were made to find out learners' ZAD, ZPD, and Learning Potential Score (LPS). LPS was proposed by Kozulin and Garb (2002) to check the degree of progress individual learners made under conditions of mediation. As Poehner, Zhang, Lu explain, 'a simple gain score, such as Budoff had proposed, does not adequately capture how learner scores changed, relative to the maximum possible score on the test, when mediation was introduced to the procedure' (2015: 10). The formula to calculate LPS is as follows:

LPS= (S post - S pre)/Max S + S post/Max S = (2S post) - S pre/Max S

8. Results and discussion

Table 1 demonstrates the descriptive statistics of learners' unmediated and mediated performances. The learners' performances before and after the mediation pinpoint interesting findings respecting listening comprehension development through cooperative interaction with the mediator. Comparisons of the means reveal that the learners had better performances after the mediation (see Table 1). For example, the mean scores of the advanced learners after mediation (M=16.16, SD=1.72) reveals a marked improvement in learners' listening comprehension as compared with their actual performance before mediation (M=5.33, SD=2.06). The results of paired-samples t-test also revealed that this difference between actual and mediated performances of advanced learners was significant (t(5)=-7.25, p<0.01, d=5.70). Similarly, the mean scores of upper-intermediate learners after mediation (M=16.33, SD=1.21) reveals a marked improvement in the learners' listening comprehension as compared with their actual performance before mediation (M=2.33, SD=2.33). The results of paired-samples t-test also

revealed that this difference between the actual and mediated performances of the upper-intermediate learners was significant (t(5)=-14.49, p<0.01, d=7.54). Furthermore, to reduce the likelihood of a Type I error, i.e. spuriously significant difference, the Bonferroni adjustment was conducted. The desired alpha-level (0.05) was divided by the number of comparisons made (i.e. 2) and the least significant differences (LSD) p-value required for significance would be 0.05/2 = .025. Since the p-value levels of the two comparisons are lower than the adjusted alpha-level (p=0.00<0.025), it can be concluded that the pairs of the actual and mediated performances within the two groups show significant differences. This supports the positive effect of mediation on the development of learners' listening comprehension and is an evidence of learners' internalization of mediation.

Regarding ability level, the comparison of the mean scores across the upper-intermediate and the advanced groups revealed that the advanced learners outperformed the upper-intermediate learners in completing the listening tasks independently (t(10)=2.35, $p\leq0.05$, d=1.36). After mediation, however, the two groups successfully accomplished the listening tasks and had improvement (t(10)=-1.94, ns). The results indicate development in the advanced and upper-intermediate learners' ZPD. The results of mixed ANOVA further revealed that Ability Levels (advanced learners, upper-intermediate learners) × Types of Performance (Actual, Mediated) interaction was not significant (Wilk's Lambada=0.75, F(1,10)=0.3.17, ns). This could be due to the mediation presented to the learners. This implied that in spite of their lower actual score, mediation helped the upper-intermediate learners in a maximally effective way.

TABLE 1. Descriptive statistics of actual, mediated, gain, and LPS scores.

	Advance	Upper-intermediate
	Mean (SD)	Mean (SD)
Actual performance	5.33 (2.06)	2.33 (2.33)
Mediated performance	16.16 (1.72)	16.33 (1.21)
Gain score	10.83 (3.65)	14.00 (2.36)
LPS	0.67 (0.13)	0.75 (0.07)

The mean scores of the gain scores between the unmediated and mediated performances were also presented in Table 1. The advanced learners showed a mean gain score of 10.83 (SD=3.65) and the upper-intermediate showed a mean gain score of 14.00 (SD=2.36). The gain scores indicated the change between the independent and mediated performances, manifesting improvement in learners' listening comprehension during mediation. Similarly, Poehner and Lantolf (2013) and Poehner, Zhang, Lu (2015) reported improvement under mediation based on learners' gain scores. The gain scores

revealed the change between the actual and mediated scores of the learners in listening and reading tasks.

No significant difference was found across the gain scores of the advanced and upper-intermediated learners (t(10)=-1.78, ns) in this study. Table 1 also tabulates the mean LPS scores of the learners at the two ability levels. The advanced learners showed a low mean LPS score (M=0.67, SD=0.13) while the upper-intermediate learners showed a medium mean LPS score (M=0.75, SD=0.07). It can be noted that while the advanced learners had a better independent score compared to the upper-intermediate ones, they showed a similar dependent score and a lower LPS score to those of the upper-intermediate learners. However, no significant difference was found across LPS scores of the advanced and the upper-intermediated learners (t(10)=-1.34, ns). It should be taken into consideration that actual scores demonstrate an already developed ability in the time of assessment. They do not reveal learners' ZPD which, as Vygotsky stressed, is vital for diagnosis and future learning and teaching. Reporting actual and mediated scores, on the other hand, gives insight into a learner's incomplete and potential abilities. LPS completes this by quantifying the observed changes, the same as a gain score, but brings forward the results in relation to the maximum possible score. In this way, a learner with a low actual score is not harshly judged and may still be accepted to have a high LPS, similar to the upper-intermediate learners in this study. Although they had a lower actual score compared to that of the advanced participants, they showed similar mediated score and a higher LPS score to those of the advanced learners.

Following the objective of the study, an effort was made to find the pattern of teacher mediation in a DA approach to L2 listening comprehension. Thematic analysis was employed to code all instances of mediation which led to the development of L2 listening comprehension. Thus, a mediational pattern for the two ability levels in focus in this study was obtained (see Table 2). Twenty five mediational strategies were detected for the two groups. In line with Aljaafreh and Lantolf (1994), Poehner (2005), and Ableeva (2010), the strategies are arranged from the most implicit to the most explicit, which can be divided into five major functions:

- 1. managing the interaction
- 2. awareness raising
- 3. identifying problems
- 4. overcoming the problem
- 5. enhancing the listening comprehension.

The mediator applies hints/prompts in order to motivate learners to participate and reconsider their performances and to assist them to move during their ZPD. It should be mentioned that mediation purpose differs from mediation technique in which the mediator may apply various techniques for one purpose and *vice versa*. Poehner stated that 'it is important to understand not simply what the mediator did but also how specific moves contributed to the performance (i.e., the function of mediational moves in the context of an interaction)' (2005: 162). The mediator, thus, may offer a choice to help learners to identify a problem and possibly to overcome it. However, certain trends in the provision of mediation are very clear.

Managing the interaction category represented the most strategic form of mediation to manage the mediator-learner interactions and encourage the learners to engage in interactions. The category includes hints of clarifying the task (move 1) and accepting/rejecting response (moves 2 and 3). In the second place, the mediator employed more explicit strategies and helped the learners to reflect on and to reattempt their performances, such as the mediator replay (move 4) of the listening text tasks, ask for the incomplete information (move 6), and rely on the learners' impartial understanding of the replayed section to propel the learner toward drawing inferences. In this case, the mediator attempted to elicit the incomplete information such as words, phrases, or sentences perceived in segments by the learners. Upon the learners' inability to proceed the task, the mediator hinted learners to identify a problem e.g. locating the part containing the error (move 11). The function underlying the next category of mediational strategies was to help learners resolve the problem and support them in doing so. For example, offering contextual reminders (move 14) was aimed at raising learners' consciousness towards the extralinguistic knowledge subsuming contextual, situational, topical and world knowledge. These levels of strategies offer greater levels of assistance through activating the required schemata. The three remaining strategies offer the most explicit mediation providing the correct response along with the required tips. This final category is assumed to convey an instructional value as it guides the learners to notice the gaps in their knowledge and accordingly enhance them.

According to Table 2, the mean number of meditational moves provided revealed that advanced level learners received an average of 160.50 (SD=30.36) of mediational strategies, while upper-intermediate level learners received an average of 207.50 (SD=29.39) of mediational strategies. The results of independent-samples t-test indicated that this difference in the number of mediational moves received is significant (t(10)=-2.72, p<0.05) and Cohen's effect size value (d=-1.57) suggested a high practical significance. It means that the upper-intermediate level learners were provided with a higher proportion of mediational strategies during DA compared to the advanced level learners. It can be noted that the upper-intermediate level learners needed more help to move from their actual to potential performances and complete the task, the listening items here.

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TABLE 2. Type, mean, standard deviation, and effect size of mediational strategies.

	Advance Upper-intermediate		
	Mean (SD)	Mean (SD)	Cohen's d
Managing the interaction			
1. Clarifying the task	3.00 (1.41)	5.33 (2.16)*	-1.27
2. Accepting response	4.00 (2.36)	6.50 (1.51)*	-1.26
3. Rejecting response		, ,	
a. Pausing	.83 (.75)	2.83 (1.47)**	-1.71
b. Repeating the erroneous guess with a	3.16 (1.16)	4.83 (2.13)	
questioning tone		, ,	
c. Saying no	4.83 (2.13)	1.83 (1.47)**	1.63
Awareness raising			
4. Replaying	19.50 (5.68)	24.50 (6.09)	
a. The entire part	24.33 (4.80)	29.00 (5.83)	
b. The segment from the part			
5. Generating the main idea	5.83 (1.72)	7.00 (1.54)	
6. Asking for the incomplete information	3.00 (1.41)	4.16 (1.16)	
7. Requesting for justification	11.83 (4.26)	16.50 (5.31)	
8. Organizing the response	10.16 (3.76)	17.00(4.56)**	-1.63
9. Making prediction	4.16 (1.72)	7.50 (2.07)**	-1.75
Identifying problem			
10. Identifying a problem/problem area	4.00 (1.41)	5.33 (1.86)	
11. Locating the part containing the error	5.00 (1.41)	7.33 (1.75)*	-1.46
Overcoming the problem			
12. Asking to consider a possible solution	4.66 (1.75)	4.16 (1.47)	
13. Asking the learner to determine the intention	4.50 (1.04)	3.50 (1.04)	
of the speaker			
14. Offering contextual reminders	4.33 (1.21)	4.50 (1.51)	
15. Offering metalinguistic clues (about the			
structure of language)			
a. Recognize word division	.83 (.75)	6.66 (1.63)**	-4.59
b. Recognize grammar relation between key	` ,	` ′	
elements in a sentence	1.16 (.75)	6.50 (1.37)**	-4.83
16. Offering metalinguistic clues (about the	9.00 (1.78)	1.16 (.40)**	6.07
semantic feature of language)	` ,	, ,	
17. Encouraging learners to add up details to infer	4.16 (1.16)	2.00 (1.41)*	1.67
logical conclusions	` ,	, ,	
18. Offering a choice	1.50 (.54)	4.33 (1.21)**	-3.02
19. Using dictionary	1.66 (1.21)	3.83 (1.83)*	-1.39
20. Offering translation	1.50 (.54)	4.16 (1.16) **	-2.93
21. Rejecting the response with explanation(s)	7.33 (1.63)	6.00 (1.41)	
22. Exemplifying or illustrating	5.33 (1.03)	5.33 (1.03)	
Enhancing the listening comprehension			
23. Providing the correct response	1.16 (.98)	2.50 (1.87)	
24. Providing explanation	5.50 (1.04)	8.00 (1.41)**	-2.01
25. Justification of response	4.16 (1.16)	5.16 (1.16)	
Total	160.50 (30.36)	207.50(29.39)*	-1.57

SD=Standard Deviation

^{*} Differences between the mean scores of advanced and upper-intermediate learners were significant at

p<.05. ** Differences between the mean scores of advanced and upper-intermediate learners were significant at

This supports the positive effect of mediation on the development of learners' listening comprehension and is evidence of learners' internalization of mediation. With respect to the five main functions of mediation provided, results of the two-way ANOVA revealed Ability Levels (advanced learners, upper-intermediate learners) × Functions of Mediation (managing the interaction, awareness raising, identifying problem, overcoming the problem, enhancing the listening comprehension) interaction was significant at F(4, 50)=2.97, p<0.05. Holm's Bonferroni adjustment was used to control Type I error. The results of follow-up t-tests revealed that there were significant differences in the mediational techniques provided to raise learners' awareness (t(10)=-2.43, p<0.05, d=-1.40), identify problem (t(10)=-2.75, p<0.05, d=-1.40)1.58), and probe for understanding (t(10)=-0.07, d=-1.77) between the advanced and the upper-intermediate level learners. That is, it is assumed here that differences in the need to mediate learners in order to reflect on their performances and help them to locate the problem might indicate progressive changes in the upper-intermediate learners' ZPD. Based on Table 2, it can be noted that upper-intermediate learners required more hints to internalize mediations and successfully reattempt the listening tasks. However, no significant differences were found in the mediation provided to manage the interaction (t(10)=-1.55, ns) and overcome the problem (t(10)=-1.28, ns)between the advanced and the upper-intermediate level learners. It means that the two groups needed the same amount of help in order to get along with the task, to resolve the problem, and to enhance their listening comprehension. Regarding each type of mediational moves, Tale 2 also revealed that replaying, specifically replaying the segment from the part, was the most frequent strategy used by the mediator at the two ability levels (i.e., advanced and upper-intermediate levels). No significant difference was detected between the two groups. Likewise, some moves such as 7 (requesting for justification) and 8 (organizing the response) were more frequent than others for the two groups. The large amount of these two mediational moves (i.e., 7 and 8) suggests that the mediator employed less explicit mediational strategies where possible when moves 1-13 are considered implicit and moves 14-25 explicit.

For example, requesting for justification (move 7) involved the learners to justify their responses based on the information presented in the text. This strategy not only reduced the chances of the learners' wild and inaccurate guesses, but also raised the students' consciousness of the key elements and the organization of the text since they were supposed to provide reasoning by collecting the pieces of information to reach a conclusion. Hence, they were somehow reconstructing the meaning through this strategy. The extract below captures mediator-learner interactions at the upper-intermediate level involving the mediational strategy of requesting for justification (move 7). In this

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extract, the learner (L) was supposed to find the main challenge of the early photographers.

[after the first replay of part of the text]

- 1. M: So... what was the problem ... with the early images?
- 2. L4: They couldn't... they couldn't fix for example ...the photo... after the exposure time.
- 3. M: Do you know why they wanted to fix the image?
- 4. L4: ... (she thinks)
- 5. M: You know the word fix.
- 6. L4: Yes ... sabet kardan (she speaks in her L1)
- 7. M: So what does it mean ... to fix the image?
- 8. L4: I don't know (laughter) ... I know the word ...but...I don't know ...I don't know what...it means here... I don't know what he means of fixing the image.
- 9. M: Ok...then...listen to the keywords this time.

10. L: OK.

[Second replay of the same part].

- 11. L: They are ...eh...for example...the image took a ...moment time [not sure]... and then it maybe...disappeared...
- 12. M: Disappeared...yes...so this was the main challenge?
- 13. L: Yes... they wanted to fix the image ...so they ...don't disappear.
- 14. M: Exactly.

Although the learner was able to perceive the significant segments and produce an acceptable response, the mediator realized he was not able to justify his answer due to the lack of understanding of the phrase *fixing the image*. Hence, the mediator recognized that he required another replay to get to a thorough understanding of this part.

On the other hand, pausing and offering metalinguistic clues (about the structure feature of language) were the least frequent strategies used by the mediator at the advanced level and offering metalinguistic clues (about the semantic feature of language) and saying no were the least frequent strategies used by the mediator at upper-intermediate level. Moreover, significant differences were found in the mediational strategies of pausing (t(10)=-2.96, p<0.01, d=-1.71), offering metalinguistic clues (about the structure feature of language) (t(10)=-2.75, p<0.05, d=1.58), offering metalinguistic clues (about the semantic feature of language) (t(10)=10.45, p<0.01, d=-6.07), and saying no (t(10)=-2.83, p<0.01, d=-1.63). Likewise, some moves such as 17 (offering a choice), 18 (using dictionary), and 19 (offering translation) were less frequent than others in the advanced group and the move 20 (encouraging learners to add up details to infer logical conclusions) was less frequent than the others in the upper-intermediate group. The small amount of these mediational moves (i.e., 17, 18, 19, and 20) suggests that the mediator

employed more implicit mediational strategies where possible when moves 1-13 were considered implicit and moves 14-25 explicit.

Importantly, the moves that were less frequent in the advanced group were more frequent in the upper-intermediate group and vice versa. It means that, for example, moves 15 (offering metalinguistic clues (about the structure feature of language) and 18 (using dictionary) were mostly used to help the upperintermediate learners to overcome the problem and to support them in doing so. Keeping this in mind, the mediator, however, mostly used moves 16 (offering metalinguistic clues (about the semantic feature of language) and 20 (encouraging learners to add up details to infer logical conclusions) to encourage advanced learners to attempt to resolve the problem and to support them in doing so. From the mediational strategies provided to the learners, specifically the ones to overcome the task, it can be concluded that the advanced level learners mostly had problems with semantic/hidden message within the task. While the upper-intermediate level learners mostly had problems with structural features. That is to say, linguistic features related to the structure of language mostly impeded the upper-intermediate level learners' comprehension of the texts heard, whereas the learners of the advanced level did not have many structural problems in their listening comprehension. The advanced learners had problems with the semantic features of language and implied meanings or messages embedded in the sentences or the texts heard. The mediational strategies that were mainly used to overcome problems for the upperintermediate learners were offering metalinguistic clues (about the structure of language), offering a choice, using dictionary, and offering translation. On the other hand, the mediational strategies that were mainly used to overcome problems for the advanced learners are offering metalinguistic clues (about the semantic feature of language) and encouraging learners to add up details to infer logical conclusions.

9. Conclusions

The present study tried to cover the gaps of literature in L2 listening comprehension by probing the nature of mediator-learner interaction when ability level was in focus. The study particularly compared the mediator-learner interaction between advanced and upper-intermediate level learners' listening comprehension development. Results of the study illustrated that DA mediation resulted in the development of the listening comprehension ability of advanced and upper-intermediate learners. The ability level of the learners was not, however, a determining factor in enhancing the development of the listening comprehension ability of learners at two ability levels. This finding provides empirical support in the context of L2 learning for Vygotsky's (1987)

claim about the actual ability level of individuals, that argues the size of an individual's ZPD is a determining factor in his/her learning development and not the individual's actual ability level. Ajideh and Nourdad's (2012) study also confirmed that the learners' ability level did not have any effect on intermediate EFL learners' individualized DA performance on reading comprehension. Although ability level of the learners had been found to be a determining factor in the type of strategy that learners used in test performance (e.g. Taguchi, 2005, Tavakoli, Hashemi Shahraki, Rezazadeh, 2012), this study showed that it had no influence on the amount of gain that learners had from DA procedure.

A close qualitative analysis of all the mediated interactions between the learners and the mediator revealed that twenty-five mediational strategies, arranged from the most implicit to the most explicit, were identified that promoted the development of listening abilities of advanced and upperintermediate level learners. With respect to the mediational strategies, it was revealed that the mediator employed mostly implicit mediation. It is also revealed that the upper-intermediate learners required more mediational support as compared to the advanced learners. Of these amount of strategies, the upper-intermediate learners required assistance mostly related to the syntax and structure of the language, whereas the advanced learners demanded prompts concerning the function and semantic of the language and the implied meanings or message embedded in the utterances or texts heard. The typology of mediational strategies developed for the learners in this study is to some extent similar to the findings by Poehner (2005) and Ableeva (2010) in which one-to-one DA procedures were used to assess and promote listening; however, a number of discrepancies are seen between them. This disagreement could be due to the differences in the listening text task used in these studies. Poehner's typology emerged from mediator-learner's interaction in which learners were asked to construct a past-tense narrative in French after watching a short video clip and Ableeva's typology emerged from learners' narration in French based on authentic speech of native speakers. However, the listening text tasks used in this study were in the form of multiple-choice formats and were on different topics requiring test takers to listen for specific information, main ideas or supporting information.

Overall, this study aimed to better understand mediator-learner's interaction in developing listening comprehension abilities of advanced and upper-intermediate level learners and present a systematized (not standardized) pattern of mediation and learner's responses. In this way, the inventory outlined here is not prescriptive but rather representative of the major kinds of mediation offered in response to learners' difficulties and mediators working with other learners in other contexts should not regard

them as 'rules' or 'norms' for ZPD. This view would be in contrast to the theoretical (Vygotsky, 1998) and empirical (Feuerstein, Rand, Rynders 1988) grounds on which learner development can best be promoted through flexible mediation that emerges from the ongoing interplay of move and response as the learner, through cooperative dialoguing with the mediator, engages in learning/assessment activities. Concerning the use of statistical analyses described above in relation to the effectiveness of the dynamic assessment procedure, it should also be noted that the data obtained assumed all assumptions underlying parametric statistical approach. However, the small sample size (i.e. 6 learners per group) of the study heads to a non-parametric statistical approach. This is a limitation which can be addressed in future research. Another point to be mentioned is the difficulty to evaluate and generalize the findings in research which involve human samples. One can hardly claim that all the variables have been controlled through the study since some uncontrollable variables like fatigue, unwillingness to participate, and the affective mood may have affected the obtained results.

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