**Research Paper**

# Dynamic Assessment Training and Mediational Strategies of EFL Student Mediators

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**Abstract**
Grounded in Vygotsky's sociocultural theory of mind, dynamic assessment (DA) procedures integrate assessment and instruction into one unified activity. Mediation as the core concept of DA is defined as the assistance and the feedback offered by the mediator to the learners while engaging in the process of assessment. This study aimed at addressing the effect of DA training on the meditational moves of student mediators regarding a writing accuracy task in small groups in an EFL classroom. A multiple case study design was used in this study. Five students underwent DA training during which they were exposed to a large classroom DA by a teacher mediator followed by basic theoretical underpinnings of DA as well as mock DA practice and discussion. Data were collected though video records of DA training workshops and Group Dynamic Assessment sessions. Additionally, stimulated recall was used to help student mediators reflect on the interactions. Language-related episodes were used for data analysis. The findings showed that DA training resulted in qualitative and quantitative changes in the meditational moves of student mediators, which calls for

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incorporating of small group DA as an essential complementary to large classroom DA and learner-centered approaches to teaching and assessment in the EFL classrooms.

## 1. Introduction

Dynamic assessment as a new approach to classroom assessment offers mediation to help learners perform beyond their level of independent functioning. Inextricably linked to the Vygotsky's (1978) zone of proximal development (ZPD), DA offers learner's assistance as necessary during the performance of the assessment task through collaborative dialogue. In this way, it explores the learner's ongoing developmental processes and provides insight into their potentials for future development.

Over the past decades, the majority of DA studies in L2 have focused on its implementation in one- to- one settings where teachers and learners have been collaboratively engaged in a dialogic interaction to develop learners' future functioning in classroom contexts (e.g., Ableeva, 2008, 2010; Anton, 2003; Birjandi & Ebadi, 2009; Ebadi & Saeedian, 2019; Kouzlin & Garb, 2002; Lantolf & Poehner, 2004; Poehner, 2005; Rahimi, Kushki, & Nassaji, 2015; Tzuriel, 2001; Xiaoxiao & Yan, 2010). This has, in turn, led to the misconception that DA is more appropriate for one- to-one interaction rather than whole-class instructional purposes since administering DA procedures individually makes this type of assessment time-consuming and not suitable for large classrooms (Ableeva, 2008).

To further elaborate on this apparently significant obstacle to implementing DA in large classes, Guk and Kellog (2007) state that many public-school teachers dismiss the concept as unworkable. However, such a logistical and theoretical problem was addressed by Poehner (2009),

introducing Group Dynamic Assessment (GDA) which follows the same principles as DA and aims to involve learners in tasks that can be accomplished by pooling their ideas and resources together in a joint activity and in a dialogic interaction.

In GDA, the assumption is to engage a group of learners rather than an individual in collaboratively co-constructing a group's Zone of Proximal Development (ZPD) and at the same time cater for each individual's ZPD (Poehner, 2009; Shabani, 2018). ZPD as a key concept in Sociocultural Theory of mind (SCT) is defined as the difference between learner's independent and assisted performance (Vygotsky, 1978).

One major challenge to implementing DA procedures facing many EFL teachers is the large number of students in classes that makes one-on-one mediation to individual students an un-manageable and challenging task. As Poehner (2009) suggests, one of the research lines that should be regarded as imperative is GDA research, which will not only enable L2 SCT proponents to identify effective GDA methodology and create instructional materials but to integrate DA to L2 classroom contexts. In spite of the existence of a number of studies conducted on GDA in L2 education (e.g., Alavi, Kaivanpanah, & Shabani, 2012; Davin, 2013; Davin, 2011; Gibbons, 2003; Lantolf & Poehner, 2011; Naeini, 2013; Shabani, 2014; Shabani, 2012; Van Compernolle & Williams, 2013), there still seems to be a strong need for more research focused on the implementation of DA in small group settings. Most of these studies have addressed the issue of large classes through implementing whole class DA with the teacher as the sole provider of mediation to the class members, altering turns between primary and secondary interactants. What is neglected is the role of the learners in promoting their own and their peers' language proficiency and the role of reticent students who are not psychologically ready to embrace teachers'

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mediation and require additional assistance and support from peers in order to compensate for any inadequacy that may exist regarding provision of support and mediation in the form of whole class interaction.

Thus, due to time constraints and the large number of students in a classroom, whole classroom GDA alone, though effective for those selected students who are given opportunities to actively participate in the classroom interaction, is not sufficient to promote and monitor the language development of every student in a classroom. Silent students are exposed to the interaction between the teacher and classmates; however, the effects of these interactions on these observers is not assured (Davin, 2016; Poehner, 2009). Therefore, many students often need additional assistance that is tailored to their individual needs to develop the target structures. As Curtain and Dahlberg (2010) argue, the small group arrangement provides a safe space for students where they can not only deal with the confusions and struggles of language concepts more appropriately and without the fear of losing face in front of the whole class but also are compelled to participate. According to Oliver (2002), peers are "an important source of data about the target language" and that "the use of peers in teaching practices would appear to be justified whether it is in the adult context or in a primary school setting" (p. 108). Peer feedback in writing classes has generated beneficial effects. In a recent meta-analysis of studies in grade four through high school, Graham and Perin (2007) concluded that peer feedback during writing instruction as a challenging task had a positive effect on improving students' writing compared to students doing the same task individually. Other studies have found peer comments to be as effective as teacher comments in both single peer feedback and multiple peer feedback (Cho & Schunn, 2007; Gielen et al., 2010).

In Iran's EFL context, writing seems to be a big hurdle for students in both high school and university levels (Farhadi, Aidinloo, & Talebi, 2016; Heidarian, 2016). Learners are facing numerous problems regarding both mechanics and organization of their writing which could be due to inadequate attention paid by the course designers to this skill (Naghdipour, 2016). Recently, there has been some attempt to include this skill in the new curriculum for high schools which, in turn, calls for more attention to the teaching requirements of writing and finding new ways to help learners perform better.

Drawing on Vygotsky' SCT of mind, in general, and principles of dynamic assessment in particular, this study seeks to determine whether small group mediation will complement the whole class or teacher-directed group dynamic assessment. Investigating the implications of DA training and identifying the moves that are employed by student mediators engaging dialogically with their peers will make DA more accessible to classroom settings. This study, therefore, aimed to investigate the application of GDA in small group configuration mediated by trained student mediators and how it is different from or similar to teacher mediation.  The following questions guided this study:

1. How is peer assistance in small groups similar to or different from teacher mediation during DA?
2. What are the implications of DA training on the mediational strategies of the student mediators?

## 2. Review of the Related Literature

### 2.1 Group Dynamic Assessment

Lantolf and Poehner (2004) refer to DA as a procedure intending to integrate teaching and assessment as a single activity by simultaneously providing mediation sensitive to the learners' ZPD and supporting development. DA

procedures can, thus, be considered as those in which assessment allows for an instructional intervention on the part of the mediator (Sternberg & Grigorenko, 2002). More importantly, it aims at promoting learner development while at the same time takes measuring his/her developmental potential into consideration. DA has been suggested by many scholars in the field as a powerful procedure to not only diagnose their mental development but to plan for their future instruction (Davin, 2011).

According to Lantolf and Poehner (2004) "one area of interest concerns the use of interactive procedures with groups of learners rather than individuals" (p, 7). Crucial insights into learners' abilities, their responsiveness to the mediational strategies is gained through interaction during group dynamic assessment. In fact, GDA's contribution to L2 classroom education is that it renders classroom interactions more systematic and more attuned to learners' emergent abilities.

As Poehner (2009) argues, group-based and one-to-one DA follow the same principle of offering learners mediation to help them co-construct a ZPD, but they differ in that GDA must also take account of group's ZPD. For a GDA to effectively promote the development of all members, the entire group need to be engaged in the interactions, but this does not mean that the members would not receive individual mediation. What happens is that teachers may offer individual mediation to one particular learner as a result of their request or need, so the teacher and the learner are considered as the primary interactants. Since the mediation occurs in the class and in the presence of other class members, they can benefit from the mediation potential as the secondary interactants.

What distinguishes group DA from other DA procedures in L2 education is that it makes interactions more systematic and more attuned to learners' maturing abilities. Additionally, it sensitizes teachers to learner development

and provides a framework for the groups to be seen not only as "assemblages of individuals but as cohesive units, the development of which is interrelated with the development of individuals" (Poehner, 2009, p. 488). Poehner further argues that teacher–learner exchanges would have different developmental significance for each learner in the group. In group DA the priority is given to group development rather than whether every mediating move benefits each learner. The group development can be determined through responsiveness to support as well as independent performance of the individual learners.

To be more specific, Poehner (2009) distinguishes between cumulative and concurrent approaches to group DA. In cumulative DA the students "take turns engaging directly as primary interactants with the teacher, with the understanding that each subsequent one-on-one exchange will have the advantage of building on earlier interactions that the class witnessed" (Poehner, 2009, p. 478). That is upon making a mistake, the mediator provides the learner with mediational moves until she/ he corrects the error or is provided with the correct answer while in concurrent GDA, the learner experiencing the error is not given enough chance to correct the error but is provided with some form of mediation that is shifted to a secondary participant/another learner to continue the interaction.

Davin (2011) cogently argues that interacting with students one at a time causes less anxiety for learners than interacting with the entire group as is the case in concurrent approach to GDA. It is possible that student confidence is lowered due to incomplete interaction with the mediator and losing the chance to offer a second response as the teacher/ mediator shifts attention to another student. Additionally, it seems that in cumulative GDA, in addition to primary interactants, secondary interactants are also actively engaged in the interaction though not directly but through gesture, raising hands to volunteer

to answer, or shouting/whispering the answer to each other (Lantolf & Poehenr, 2011). Cumulative GDA, therefore, is the approach embraced in the present study for the aforementioned reasons.

## 2.2 GDA in EFL context

In the Iranian EFL context, Alavi, Keivanpanah and Shabani's (2011) study was an attempt to test the applicability of GDA in identifying the mediational strategies offered by a mediator during his GDA interactions with a group of L2 learners in the context of EFL listening. It also aimed at unfolding the effects of GDA-based instruction on the co-construction of knowledge among L2 listeners. A group of L2 learners ranging in age from 20 to 25 constituted the participants of this study, which employed an interactionist approach to GDA.  An inventory of mediational strategies consisting of different forms of implicit and explicit feedback was developed which helped track the learners' microgenetic and developmental trajectories over time. The findings suggested that the interaction served as a rich and complex learning mechanism from which students could benefit to resolve their listening comprehension problems which were not visible during the non-mediated (NDA) assessments. Teachers relied on these interactions to decide upon the most relevant remedial instruction and redress the abilities that were in the state of maturation.

To the best of the researchers' knowledge, Davin's (2013) work is the only study which has examined small group interaction within a SCT framework. Davin aimed at exploring the implementation of GDA in a combined fourth and fifth grade elementary Spanish classroom investigating interrogative use and formation in large and small group settings. Her findings indicated that some students benefitted from large group DA, while others required peer mediation provided during small group work to develop the target structure. The primary emphasis in this work was initially on DA that utilized pre-

scripted assisting prompts. Findings of Davin's study provide evidence of the compatibility of interventionist DA in early language classroom without scarifying the effective language pedagogy. She further concluded that small group work can be considered as a complement to large group DA because it assists learners in requesting mediation and verbalizing their thoughts.

Although Davin's (2013) study is interesting in terms of offering learners additional assistance by teacher followed by peers' help, it did not take into account the ZPD of learners and the assistance provided by the teacher in whole classroom configuration was based on interventionist approach of DA through which a set of prefabricated hints and prompts were provided. Additionally, the assistance provided in small groups by the peers was random, that is, the students did not receive any training from the teacher or researcher on how to work collaboratively in their small groups and were not given any explicit requirement to assist their peers.

Summers (2008) investigated the impact of DA training on the mediational strategies of teacher mediators. DA training on the theoretical underpinning of DA as well as the ways in which they were to implement DA procedure in their classrooms was provided to four teachers working with L2 learners of French as a foreign language to examine the impact of training on the meditational strategies of mediators and whether these strategies were different as used for learners with different proficiency levels. The results indicated that DA training had indeed a significant impact on the way the teachers conducted their mediation with the learners and that the mediational strategies used with learners with different proficiency levels had minute differences. Summer's study, though, revealing regarding the effects of training, still focused on teachers as the main resources for providing mediation to learners and ignored the learners themselves as the ones that could take the responsibility for not only their own but also their peers' learning as well.

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In short, none of the studies conducted so far has investigated DA training and its impact on mediation, especially regarding student mediators meditating their peers. Due to the paucity of research in the area of GDA especially regarding writing skill, and small group work, especially, regarding training learners on how to implement DA procedure, attempts were made in this study to investigate the mediation/learning interface from within a theoretical stance and based on the SCT framework developed by Vygotsky and his colleagues.

## 3. Method
### 3.1 Design of the Study
A multiple case study design was used in this study (Cresswell, 2013; Cresswell et al., 2003) using an interactionist DA approach which is qualitative in nature and provides flexible mediation to learners in accordance with their ZPD.  Given the fact that language learning and development is a social process and at the same time highly individualized, this study adopted a case study approach which is best suited to study "individual, group, organizational, social, political, and related phenomena" (Yin, 2003, P. 1). Figure 1 provides a schematic representation of the study including whole classroom DA reported elsewhere.

| Session | Assessment sessions |
|---|---|
| 1, 2 | Administering DIALANG test |
| 3 | Pretest (NDA1), |
| 4, 5 | Whole classroom DA1, Pre-training |
| 6 | Post-test (NDA2 |
| 7, 8 | Whole classroom DA2, Pre-training |
| 9, 10 | DA Training (excluding pre-training) |
| 11, 12 | Small group (DA1& DA2) |

*Figure 1. Design of the study*

### 3.2 Participants
Twenty-five tenth grade female students from a public high school were selected through convenience sampling as the participants of this study. Convenience sampling was used when participants met certain practical

criteria including easy accessibility, geographical proximity, availability at a given time, or willingness to participate in the study (Dörnyei, 2007). Five students whose DIALANG proficiency levels were C1 and C2 were selected as student mediators. Advanced students were selected because they were supposed to have high proficiency to offer DA mediations to their classmates.

Table 1
*Student Mediators' DIALANG Score and Language Proficiency*

| Student Mediator | Grade | Score on DIALANG Test (Grammar) | Language Proficiency (Language Institutes) |
|---|---|---|---|
| Bahar | 10th | C1 | Upper-intermediate |
| Dorsa | 10th | C2 | Advanced |
| Mohadeseh | 10th | C1 | Upper-intermediate |
| Marzieh | 10th | C1 | Upper-intermediate |
| Pardis | 10th | C1 | Intermediate |

*Note. Pseudonyms were used to protect the identity of participants*

## 3.3 Instruments

For the purpose of this study, a number of instruments were used which included: pretest, posttest, written artifacts, DIALANG Test, video-recordings of the interactions, DA workshops, and student oral reflection collected through stimulated recalls. DIALANG is a web-based project, which can be downloaded from its website (https://dialangweb.lancaster.ac.uk) free of charge. Users must have an Internet connection in order to use the software. As a language diagnosis proficiency test, DIALANG is used by many higher education institutions across Europe and provides the testees with their level of language skill based on the Common European Framework of Reference (CEFR) for language learning. The results of DIALANG test, in this study, were intended to glean more insights into the students' language proficiency, especially their mastery over grammatical structures, identify problematic areas and help better divide them with into groups so that their progress could be more easily followed and reported.

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Regarding video-recording, DA sessions in both whole classroom and small groups, and DA training sessions were video-recorded for later analysis. This was done while the learners were reading their composition aloud to the teacher mediator and other leaners in large and small groups and they were engaged in the DA interaction which aimed at assisting them in correcting their errors. These video files were later archived on the researcher's computer and transcribed word for word by the researcher.

Regarding written artifacts on pretest and posttest, the learners were required to write two compositions which were based the on the video clips they watched. The video clips (Clip 1: Shakespeare and clip 2: Einstein) were selected based on the topic of lesson three of their coursebook, which was about famous people. Each clip was played three times and right after, the learners were required to start writing their composition without any type of limitation in terms of the length of their composition except the time limit, which was forty-five minutes for each composition after watching the video three times, which took fifteen minutes. The selected topics were relevant to the topics of the English book the students were studying at school at the time of the research as this ensured the researcher that the students had enough vocabulary to let them flow their thoughts written on paper. The clips used on the pretest and posttest were similar in terms of topic, pace of delivery and level of difficulty but not identical, that is, the topics were related to famous people (DA1: William Shakespeare & DA2: Albert Einstein) which was the topic of the reading section of lesson three in their coursebook.

### 3.4 Procedure

Following the whole classroom DA sessions, student mediators were provided with DA training workshops in which they received training on basic theoretical aspects of DA and a more comprehensive training on the practical aspects of providing mediation in an interactionist format. An

interactionist approach to DA was used in both teacher-student and peer-student interactions in which assistance emerges from the interaction between the mediator and the learner. The training procedure included two sessions (excluding exposure to whole classroom sessions) each lasting about one and a half hour of encompassed pre-training, training and post-training phases.

As Figure 1 illustrates, before conducting the first workshop, the student mediators were exposed to the interaction between the teacher and the students during the two whole classroom DA sessions. Next, during the workshop, participants discussed their understanding of the way that the teacher offered mediation to the students and watched the videos of the same classroom DA sessions to further enrich their understanding and elaborate on the topic. This was followed by the main training session, which included a short discussion of the principles of DA and its basics, introducing DA as a novel approach to assessment, characteristics of DA as conducted in the classroom and its origins in sociocultural theory and its purpose. All explanations were conducted in Persian, the student mediators' first language, to ensure intelligibility of the content. The student mediators, then, watched the classroom videos once more to review the procedure and how it is implemented. They further discussed how they might implement DA in their own groups and were required to ask questions from the mediator to avoid any ambiguity regarding the way they could conduct DA and provide mediation to their peers. A summary of how they were to conduct DA procedure in their groups was provided at the end of the session. The following week, the student mediators were each engaged in a mock DA session, practiced the meditational strategies and consolidated their ideas about DA and its practicality followed by the researcher's feedback on their practice. One of the student mediators was asked to implement DA and offer mediation to a student while their interaction was recorded. Consequently,

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they reflected on this instance of DA implementation and received additional feedback from the researcher to further clarify the procedure. Figure 2 provides a graphic representation of the DA training session format designed for the purpose of this study.
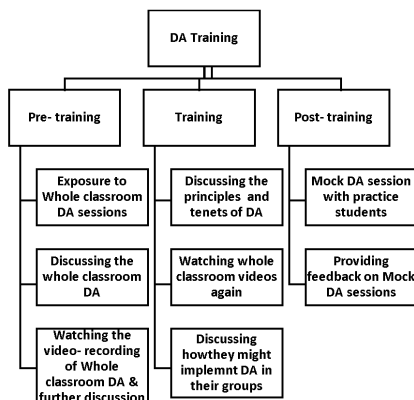
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                        ┌──────────────┐
                        │  DA Training │
                        └──────┬───────┘
          ┌────────────────────┼────────────────────┐
   ┌────────────┐      ┌────────────┐       ┌──────────────┐
   │ Pre-training│     │  Training  │       │ Post-training│
   └─────┬──────┘      └─────┬──────┘       └──────┬───────┘
   ┌──────────────┐   ┌──────────────┐     ┌──────────────┐
   │ Exposure to  │   │ Discussing the│     │ Mock DA session│
   │Whole classroom│  │ principles and│     │ with practice │
   │ DA sessions  │   │ tenets of DA  │     │   students    │
   └──────────────┘   └──────────────┘     └──────────────┘
   ┌──────────────┐   ┌──────────────┐     ┌──────────────┐
   │Discussing the│   │Watching whole│     │  Providing   │
   │whole classroom│  │classroom videos│    │feedback on Mock│
   │     DA       │   │    again     │     │  DA sessions │
   └──────────────┘   └──────────────┘     └──────────────┘
   ┌──────────────┐   ┌──────────────┐
   │Watching the  │   │ Discussing   │
   │video-recording│  │howthey might │
   │of Whole      │   │implemnt DA in│
   │classroom DA &│   │ their groups │
   │further discussion└──────────────┘
   └──────────────┘
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*Figure 2*. DA training phases

Following a whole classroom DA procedure in the first phase of the study, the students were divided into groups of 4-5 (including low/ A, intermediate/ B and advanced/ C) based on the results of DIALANG test. It should be noted that the students took the grammar section of the DIALANG test as writing accuracy was the main focus of this study. They were, then, assigned to ZPD groups where they received corrective feedback within their ZPD from student mediators. Since most of the learners did not have the chance to take part in the primary interactions and the secondary interactants could be ensured to benefit from the interactions between the teacher and the primary interactants, they were divided into small groups and received mediations in the form of systematic assistance from their peers trained in conducting DA procedures.

To be more specific, each student in the small group (DA1 & 2) was asked to read a composition she had written after watching short clips on famous people (during non-dynamic sessions) aloud and whenever she read an incorrect form in her writing, the student mediator offered her a set of prompts ranging from the most implicit to the most explicit and changing depending on the learner's responsiveness to the mediation provided. Prompts became more and more explicit until the student formulated the response correctly although other students in the group were potentially actively listening to, and benefitting from, the exchanges between the mediator and the learner (Poehner, 2009). After providing each prompt, the student mediator gave the student an opportunity to correct the error. She then offered additional prompts, followed by a pause, until the student corrected the error. If the student failed to incorporate the mediator's feedback and could not come up with the correct answer, the student mediator would provide the answer. This whole procedure was conducted while other group members were attending to the interaction and responding verbally/non-verbally as secondary interactants.

It should be noted that the target structures in the present study included subject/verb agreement, simple tenses including simple past, present, present progressive and simple future, appropriate use of adjectives before nouns or after to be verbs, and word order. These were selected based on diagnostic feedback provided by the results of grammar section of DIALANG test, learners' independent performance on their writing, and the findings of some of the studies conducted in Iranian context regarding challenging grammatical structures (e.g., Saadat et al., 2017).

## 4. Data Analysis

To answer the research questions, we transcribed and examined the Language-Related Episodes (LREs) that corresponded to the target structures

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in this study. An LRE is a section of dialogue where learners "talk about the *language* they are producing, question their *language* use, or correct themselves or others" (Swain & Lapkin 1998, P. 326). To further understand the assistance that occurred, each transcript was analyzed using a thematic analysis framework where data reduction procedure is applied to generate comprehensible patterns to be used for analyzing the qualitative data (Boyatzis, 1998).

## 5. Findings and Discussion

## 5.1 Mediation typology: Small Group DA Sessions

The following meditational typology emerged from the analysis of interactions between student mediators and their group members. As in the studies by Ableeva (2010), Aljaafreh and Lantolf (1994), Anton (2009), Lantolf and Pohner (2011), Poehner (2005), and Shabani (2018), the meditational moves outlined here were not prescribed in advance but developed out of the interactions between the student mediators and learners.

| | |
|---|---|
| 1. | Pause accompanied by sceptical look |
| 2. | Request for Repetition of the Whole Sentence |
| 3. | Reminding the learner of Existence of an Error |
| 4. | Specifying the location of error |
| 5. | Metalinguistic Clues |
| 6. | Translation |
| 7. | Asking for Explanation of response |
| 8. | Leaving the error unattended |

*Figure 3. Mediational moves: small group DA*

The following protocols have been drawn from the mediated portions of the assessment sessions that involved interaction between student mediator and learners and included providing prompts and assistance.

## 5.1.1 Pause accompanied by sceptical look

The goal of this kind of mediation was to determine if the learner could identify the error or probably correct it. A representative example of this form

of mediation given below is taken from Maehdeh's performance in her second DA session. Here we have a problem related to the omission of the main verb followed by student mediator's immediate mediation that is specifying the location of error with a questioning intonation. As this form of mediation does not result in any correction and just prompts repetition of the whole sentence containing the error by Maehdeh, the student mediator asks for an English equivalent for the word she has produced in Persian; that is, *bood* (was) in line 4. As in this example, this form of mediation was unsuccessful too and resulted in incorrect response by the learner followed by a sceptical look from the mediator that apparently meant she was waiting for an explanation or probably another attempt at correcting the error. Although Maehdeh tried another response in line ٧, which was of course incorrect, the student mediator left it unattended due to either her insufficient knowledge of the related structure or not noticing it.

> 1.A: his socks* always holes
> 2.M: his socks?
> 3.A: his socks always hole
> 4.M: what word did you use for (bood) (was)?
> 5.A: hole
> 6.M: (looks at her, waiting for more explanation)
> 7.A: …his socks were holes

## 5.1.2 Request for repetition of the whole sentence

This type of meditational move which is the least explicit form of mediation occurred as the first move in whole classroom interactions while this was not the case in small group settings. That is to say, student mediators embarked on this type of move in less than a half of their moves while this occurred as the first move in all interactions mediated by the teacher mediator which reveals the paramount importance of graduated prompts that is starting with the least explicit forms of moves and moving towards the most explicit forms. More than half of the student mediators, in their first attempt, relied on

other types of moves which were more explicit in nature compared to requesting for repetition of the whole sentence. The following excerpt is related to Maedeh, who was mediated by Dorsa as her group mediator.

> 8. A: He had two younger sisters and three brothers and he *is studying Latin
> 9. M: Read this last sentence again
> 10. A: He is studying?
> 11. M: What do you think the problem is?
> 12. A: …he was studying
> 13. M: that's it

As it can be seen from the above protocol, Maedeh makes a mistake in line 8 and uses present tense instead of past which is followed by Dorsa's request for repetition of the whole sentence. Following Maedeh's response in line 10, the student mediator jumps to the third meditational move (Figure 3) which is reminding the learner of the existing error and thus more direct and explicit in nature. This may be due to student mediator's insufficient knowledge of the importance of graduated prompt in the ZPD of the learner as an important part of mechanisms of effective help developed by Aljaafreh and Lantolf (1994) which in turn calls for more elaborated and extensive training session. In whole classroom DA sessions, this was the default teacher move used in 100% of cases.

## 5.1.3 Reminding the learner of existence of an error

This type of move is among the less explicit ones and is aimed at drawing the learner's attention to the fact that her sentence contains an error without directly referring to the error itself. If a learner is able to identify the error and probably correct it after receiving this type of move, she can be considered as more independent and having more control over the target structure. This is because she has been responsive to the moves that are at the learner agency or top of Figure 3 rather than the teacher agency end of the figure (Davin, 2016). Surprisingly, as other implicit moves at the top of the figure, in most cases this move appears as the first move, thus ignoring the

importance of gradual movement from the least explicit to the most explicit moves. Take the following excerpt from Zeinab's interaction with her student mediator.

> 14.B: he *loves English
> 15.M: just a minute. Something is wrong
> 16.B: should I use past?
> 17.M: yeah
> 18.B: he loved

Zeinab uses present tense in line 14 while she is talking about the past. This is followed by her immediate reaction and interruption and reminding Zeinab of the existence of an error in her sentence, which is the third move from the top of the figure. Interestingly, it leads Zeinab to not only identify the error that is the verb but to provide the correct form in line ۱۸. This reveals that although student mediators' meditational strategies have changed and been affected after receiving training, the way they address students' errors undermines the importance of graduated prompts and still needs modification and practice.

### 5.1.4 Specifying the location of error

In whole classroom DA, the mediator embarked on this type of move when her other more implicit moves were futile and the learner was not responsive. The student mediator, however, applied this type of move as her first way of addressing learner's error in about half of the cases. Hananeh's interaction with Dorsa, her mediator, represents application of this type of move.

> 19.C: Eienstein was one of the popular scientists. He *has ragged style
> 20.M: he?
> 21.C: he had
> 22.M: nods her head

Hananeh uses the present instead of the past tense in line 19 and receives the first prompt from Dorsa in the next line. Although using *he* with a questioning tone might seem to be a request for repetition of the sentence, in all cases, the last word before the erroneous part is repeated or emphasized

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which is a way of locating the error, an indication that the mediator has missed using implicit prompts as her first endeavour. Student mediator's ignorance of such a prompt as request for repetition of the sentence to a move in which she identified the location of the error represented a missed opportunity for creating what Davin (2016) refers to as a "discursive space in which [mediator's] mediation might have promoted learners' self-regulation" (P. 8).

### 5.1.5 Metalinguistic clues

Metalinguistic clues were among the moves that were used by the student mediators in a few cases when they noticed that more implicit moves did not work and the learner was not responsive to them. What follows is the interaction between Hananeh and Dorsa who first mediated her peers with a request for repetition of the sentence upon Hananeh's encountering a problem in line 23. This is followed by reminding the learner of the existing error in line 26, translation in line 28 and metalinguistic clues in line 30. The interesting point is that the order is not followed in terms of providing the implicit moves first and then moving toward the explicit ones in lines 28 and 30. That is the mediator first uses translation followed by specifying the nature of the error to clarify the point for Hananeh. The interaction terminated with a metalinguistic clue followed by the correct answer by the learner. Had the student mediator provided a more explicit mediation instead of translation, she might have promoted Hananeh's understanding of how to correct her error and also collected important data about the learner's understanding of tense.

      23.C: He *has two old sisters and brothers
      24.M: read it from beginning
      25.C: repeats the whole sentence
      26.M: what do you think the problem is?
      27.C:…..(looks at her paper)
      28.M: (to mikhai beghi baradar va khahar dasht) (you are saying she had brothers and sisters) The verb I mean
      29.C: has?
      30.M: in the past

31.C: had
32.M: yes that's it

## 5.1.6 Translation

Translation into Persian was used when other forms of mediation which were less explicit in nature and were at the learner agency rather than teacher agency side of Figure 3 did not work. Kimia is mediated by her group mediator upon using singular form of the word instead of plural in line 33 through reminding the learner of the existence of an error. This is followed by translation in line 36 and immediate application of another type of meditational move that is metalinguistic clues in the same line without giving the learner the opportunity to respond to the previous mediation. What is obvious in these types of mediation sequences between the student mediators and learners is that firstly graduated prompt as one of the mechanisms of effective help in Aljaafreh and Lantolf's (1994) word is not taken into account by all student mediators and secondly in some cases there is a shift of moves from explicit to implicit and vice versa while this was not observed in whole classroom mediation. This, consequently, dismissed the opportunity to create an atmosphere of more learner agency and self-control rather than other or partial- regulation at the beginning of the interaction, though the rest of moves were graduated and contingent on the needs of learners.

33.D: he had three younger *brother and three older *sister
34.M: ok just a minute. Where do you think the problem is?
35.D: younger brother?
36.M: ok and…? (chand khahar va baradar) (how many brothers and sisters?)
       It is plural
37.D: brothers?
38.M: yeah. Brothers and the other one?
39.D: sisters
40.M: ok good

## 5.1.7 Asking for explanation of response

This form of mediation involved the student mediator asking the learner to explain her reason for selecting a particular structure she used or what she meant by the given structure and the associated words. This form of mediation provided valuable information regarding the learner's level of

awareness of the target structure and the possibility of using alternative grammatical forms and their developmental level. This technique and asking the learner to verbalize her reason was used when the learner's given structure was problematic and the mediator aimed at prompting her to reconsider her error and probably correct it. Take the following excerpt from Hananeh's first small group DA session as an example for application of this technique:

> 41.C: in this place the men *actor instead of women
> 42.M: the men?
> 43.C: in this place the men actor instead of women
> 44.M: what do you mean by this sentence?
> 45.C: (explains in Persian) mardha be jayeh zanha naghsh bazi mikardand
> 46.M: so you need to use another word instead of actor.
> 47.C: played?
> 48.M: yeah the men played

   Hananeh uses the word *actor* as a verb while she needs the verb *played* in line 41. This is followed by student mediator's immediate request for repetition of the sentence through repeating the word used before the target structure with a questioning intonation. Since this implicit form of mediation does not lead to the correction of error by the learner, the mediator asks Hananeh to explain what she means by the sentence which is, then, followed by Hananeh's explanation in Persian. Fortunately, her explanation clarifies what she is willing to write and leads the mediator to assist her more explicitly by telling her that she needs a different word instead of actor.

## 5.1.8 Leaving the error unattended

This form of mediation occurred as a result of student mediator's lack of sufficient knowledge or her inability to notice the error. Another possible reason for using this move could be the fact that student mediator took learner's positive response (e.g., yeah, yes) at the end of interaction as a sign of coming up with the correct answer. The following excerpt is from Maedeh's first small group DA session in which she misses the main verb in

line 49. This is followed by mediator's questioning intonations, which is an attempt to prompt the learner to identify the error and probably correct it. Since the first type of mediation fails to lead to identification of error by the learner, the student mediator relies on translation in line 52 to provide her with more explicit form of mediation. It seems that selection of this form of mediation occurred because Maedeh was not very responsive to more implicit mediation types in the previous interactions. This last form of mediation is only followed by Maedeh's confirmation of mediator's explanations and question and does not result in the correct answer. It seems that student mediator takes the confirmation word or *yeah* in line 53 as a sign of learner's incorporating the mediation and coming up with a covert/ hidden correct answer. That is why no correction takes place by the mediator at this point.

49.A: many people *sad for him
50.M: many people?
51.A: Sad for him
52.M: (yani chi barayeh bimarish narahat boodand?) (what do you mean? Were they sad because of his illness)
53.A: yeah

## 5.2 Peer/ teacher Assistance: Similarities and Differences

To answer the first question, all mediation sequences in both whole classroom and small groups were analyzed to determine the extent to which prompts in both types of group configuration were similar or different and whether there were signs of moving the learner forward in her agency or self-regulation. The results of this type of analysis indicated that teacher mediator's prompting and mediation was graduated and contingent based on learners' needs and use of various forms of meditational moves and prompts, which naturally leave more room for learner agency in correcting their own errors, thus creating a space in which learners might potentially have progressed from other-regulation to self-regulation (Davin, 2016). In other

words, the teacher mediator had appropriated this feature of DA (graduated prompt), therefore, making it one's own (Wertsch, 1998) to serve her mediational purposes. In small group DA, which was led by student mediators, on the other hand, meditational moves were not only limited in terms of their variation and type but were less graduated, consequently, skipping the implicit moves at the beginning of interactions and moving promptly to more explicit moves ignoring learner's responsiveness and needs in accordance to their ZPD.

This leads the researchers to the conclusion that throughout the interactions, the student mediators stood loyal to some GDA criteria like, contingency and dialogic collaboration (Aljaafreh & Lantolf, 1994) while graduation as another important criterion was not efficiently implemented. In spite of this partial loyalty to some principles of DA, it still reflects the existence of a somehow systematic and principled instruction/assessment in small group rather than a disorganized and random presentation, which characterizes more traditional educational systems though the extent to which this systematicity showcased was lower as compared to whole classroom setting, which indicates an urgent need for more work on graduated prompting in small group configuration.

This research finding demonstrated that student mediators had achieved a high degree of skill in conducting DA in their respective groups and an awareness of how to mediate the learners and generate effective feedback as the interaction went on. This awareness is of vital importance since, according to Shabani (2018), much of the success in DA procedure depends on the mediator skill to manage the interaction as it goes on. It is important; however, to note that inability of student mediators to appropriate graduation as one of the vital features of DA- based mediation demands more attention and is indicative of the need for a more elaborate and probably continuous

training on DA principles. As Summers (2008) concluded, more emphasis on practical experiences and providing more opportunities for novice student mediators to be exposed to more mediational modeling is of upmost importance.

## 5.3 DA Training and its Implications

To answer the second question, it is important to note that the before the training, the students were not involved in the actual small group or after training DA sessions. Table 2 illustrates various types of meditational moves employed by student mediators before and after receiving DA training.

Table 2
*Student Mediators' Mediational Strategies Before and After DA Training*

| Small group DA (Before training) | Small Group DA (After training) |
|---|---|
| 1.Pause accompanied by sceptical Look | 1.Pause accompanied by sceptical Look |
| 2.Metalinguistic clues | 2.Request for Repetition of the Whole Sentence |
| 3.Translation | 3. Reminding the learner of Existence of an Error |
| | 4. Specifying the location of error |
| 4.Providing the correct answer | 5. Metalinguistic Clues |
| | 6. Translation |
| | 7. Asking for Explanation of response |
| | 8. Leaving the error unattended |

As Table 2 displays, three of the meditational strategies employed by the student mediators before receiving training on conducting DA mirror those found after training meditational strategies of the mediators. Five more meditational prompts are missing before the training session. The missing prompts before the training session are mostly implicit or relatively implicit ones and this implies the student mediators' failure to provide prompts which are graduated and move from the most implicit to the most explicit ones before the training session. Interestingly, after the training session, the student mediators usually embarked on more implicit moves after their first mediation as compared to pre-training mediations which mostly involved the

moves towards the end of the meditational typology in Figure 6, that is, more explicit moves.

Additionally, the student mediators stood loyal to contingency as another characteristic of DA procedure, that is the provided prompts and moves after the training session were mainly systematic and based on the mediator's purposeful provision of mediation upon learner's facing the problem. Pre-training mediation, however, included haphazard and hit- or -miss mediation which was provided regardless of learner's needs and responsiveness. Moreover, one meditational move, that is, providing the correct answer by the mediator was missing in the post-training DA session while it was prevalent before the training, which adds further evidence to support the claim that post-training DA sessions differ in terms of the diversity in mediational prompts. They are also likely to lead to the application of more implicit prompts. This, consequently, mitigates Aljaafreh and Lantolf's (1994) and Lantolf and Poehner's (2008) claim regarding learners' different ZPDs for various structures and the need for different levels of help. Therefore, DA training definitely has an impact on meditational strategies of student mediators.  That is, a marked increase in the mediational moves can be observed in post-DA training mediational sessions (Table 2).

More importantly, assessment of the learner's needs and abilities and tailoring of help to those needs is a continuous process which is accomplished only through dialogic collaboration of the learner and mediator (Aljaafreh & Lantolf, 1994). The dialogues in pre-training session are, however, very short in length and only involve 2-3 mediational prompts and few responses on the part of the learner which makes it virtually impossible to discover the learner's ZPD. The interactions including mediations and responses, on the other hand, were more elaborate and dialogic setting the ground for more student involvement and taking more responsibility and agency, which resulted in their development regarding the target structures in this study.

It could be argued that help provided by student mediators in pre- training session, though effective in arriving at the correct answer, is not sufficient to move the learner beyond her current level of performance as some of the learners repeated the same errors later. In fact, this type of help has a consciousness-raising function contributing to successful language learning as learners' attention is drawn to the target language structures and consciousness-raising tasks can bring about significant learning gains in L2 explicit knowledge (Eckerth, 2008). These are, however, far from making learners autonomous and cannot promote the abilities which are in the state of maturation.

## 6. Conclusion

This study reported on application of GDA in a foreign language learning context and is one of the first studies to have researched GDA in small groups mediated by trained student mediators in an EFL classroom to date.

The findings revealed that student mediators can take responsibility for assisting their peers and students can learn through interaction with their peers. Moreover, the student mediators mediated their peers using a variety of mediational moves some of which echoed those employed by the teacher mediator. The mediations in the small group did not necessarily begin with the most implicit ones thus were not attuned to the ZPD of the learners at the beginning. This however, changed after the first or second move and the mediations showed signs of graduation which is one of the main tenets of DA procedure. Overall, student mediators were promoting their peers' developmental level as they had appropriated most principles and tenets of DA in spite of their confusing and unsystematic start. The student mediators in the present study, like mediators in works of Curtain and Dahlberg (2010), Davin (2011), Donato (1994), and Ohta (2005) had the ability to provide their peers with necessary assistance and act as mediator though the degree of systematicity in providing feedback differed from that of teacher mediators.

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Unlike Wertsch and Hikmann's (1987) study, which showed student often provided their peers with correct answer instead of helping them to find the correct answer, the results of this study showed that student mediators appropriated DA principles and teacher's way of mediating learners and assisted them in such a way that most of the time resulted in correction of errors by the learners. This finding was in line with Davin's (2011) finding that no student mediator formed the target structure (an entire question) for their peers.

Peer feedback can be considered as a method of providing assistance to learners which can take into account the SCT principles and reinforce learning leading to further improvement of learners' abilities regarding a particular structure. Training students into providing peer feedback has been recognized as a key means of promoting peer feedback quality in the language classroom, especially in L2 writing instruction (Alnasser, 2018). This is because it sets the ground for appropriate learning that is centered more on learners rather than on the teacher and, at the same time, establishes more active learning situations.,

The findings provide supportive evidence for small group DA as an essential complementary to large classroom DA and learner-centered approaches to teaching and assessment. As Summers (2008) puts it, "incomplete or improper understanding of DA leads to haphazard or partial implementation of DA procedures in a way that does not respect Vygotsky's conceptualization of cognitive development" (P. 134). Moreover, investigating the development that occurs in dialogic interaction between the student mediators and learners requires more practice and training than provided in this study. Therefore, future studies can provide DA training in such a way that results in a full understanding of its principles and approach to mediation as this would assist the teacher or student mediators in providing

mediation in a way that promotes cognitive development in learners. Additionally, future studies could focus on conducting longitudinal studies targeting the impact of DA professional development and in-service courses on teacher and learner development.

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