

Exploring the Effects of Mediation in Group-Dynamic Assessment (G-DA) Approach for an Iranian Undergraduate EFL Writing Course

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Abstract

The present study employed a cumulative format of Group Dynamic Assessment (G-DA), an assessment approach that integrates instruction into assessment, and adopted an interactionist approach to DA to conduct a semester-long mediation program in a writing course, which aimed at improving the writing ability of 15 (8 males and seven females) intermediate proficiency level sophomore students of English Language and Literature, in a State University in Iran. The students' performances on non-dynamic writing pre- and post-tests and nine in-class dynamic writing tasks, completed during the DA sessions, were compared using independent samples t-test and mixed between-within subjects analysis variance (ANOVA), respectively. More specifically, the participants were divided into the two groups of more-skilled and less-skilled student writers, and then their performance was compared. The results indicated that the mediation offered had been highly effective in improving the writing competence of both groups of more- and less-skilled writers. They have been equally able to benefit from the mediation received and resolve their problems in writing. In addition, the dominant patterns of tutor mediational and learner reciprocity moves from a recorded DA intervention session were identified to see how they can lead to the learners' writing development.

Keywords: *Group-Dynamic Assessment, Mediation, More- and Less-Skilled Student Writers*

Introduction

The complexity of writing activity causes teachers to challenge what to teach and evaluate students' performance. Moreover, teachers need to be prepared to pass judgments on the quality of learners' performance and provide them with feedback to help them understand good writing (Dempsey, Pytlikzyllic, & Bruning, 2009). Recently, some researchers have focused on the link between feedback in writing and some SLA theories. They have investigated the effects of feedback on improving the learners' language proficiency and writing ability in such frameworks. One of these SLA theories is Vygotsky's (1978) sociocultural theory (SCT) of language development, which emphasizes "the collaborative and interactive aspects of feedback and its crucial dialogic role in scaffolding learning" (Hyland, 2010, p. 172). In the same vein, the present study drew impetus from this tradition and located feedback in writing within the mind's sociocultural theory and the Dynamic Assessment (DA) approach to assessing and providing feedback. DA integrates assessment and instruction as a unified and dialectical activity and attempts to develop learners' abilities by offering a systematic type of mediation which is attuned to their *Zone of Proximal Development* (ZPD) levels, that is, the distance or cognitive gap between the individuals' actual developmental level and their potential and assisted development under other expert's guidance (see, e.g., Lantolf & Poehner, 2004, 2014; Poehner, 2008; Poehner & Infante, 2015; Poehner & Lantolf, 2005, 2013; Van Compernelle & Zhang, 2014, to name a few). ZPD links assessment and instruction as a means of regulating learning and, in turn, fostering the development of learners in educational settings. Mediation or scaffolding provides an opportunity for such a development in DA-based interventions.

Dynamic assessment is a very new-coming endeavour in classrooms settings, and very few studies have explored the possibility of using DA in the foreign language classrooms in which the mediator must mediate a group of learners' ZPDs simultaneously, which is a rather labour-intensive approach and may not be feasible in all contexts (e.g., Alavi, Kaivanpanah & Shabani, 2012; Alavi & Taghizadeh, 2014; Davin, 2013; Lantolf & Poehner, 2011; Poehner, 2009; Poehner & Lantolf, 2013). Therefore, the present study explores the nature and feasibility of group-based mediation in a writing classroom in which the mediation is offered based on the interactionist model of DA. It also tries to examine how the mediation offered can lead to improved writing competence of different ability writers, i.e., more- and less-skilled student writers.

The Literature Review

The role of mediation in dynamic assessment

Mediation is the main defining feature of DA and distinguishes it from other approaches to assessment. Lantolf and Thorne (2006) define mediation as a process that humans use to regulate the material world, others' or their own social and mental activity by using culturally constructed artifacts, concepts and activities. To understand how mediation is approached in DA, Lantolf and Poehner (2004) suggested the terms *interventionist* and *interactionist* DA. In the interventionist DA, the mediator should follow a highly scripted scale of implicit to explicit mediational strategies or prompts to respond to the learners' individual needs and solve their problems. In interactionist DA, on the other hand, there are no restrictions on

mediation and assistance is offered during the interaction and cooperative dialogues between the mediator and the learner by considering the learner's ZPD.

Poehner (2008) maintains that a major challenge facing DA literature is DA's use in classroom settings where the mediator should improve a group of learners' ZPDs. As a response to this issue, Poehner (2009) introduced a new approach known as group dynamic assessment (G-DA) to study social mediation in the classroom context in which the mediator is required to "negotiate simultaneously with a group of learners in co-constructing several ZPDs and moving the entire group forward in their ZPD" (Alavi et al., 2012, p. 29). In order to effectively conduct the mediation in the G-DA framework, Poehner (2009) elaborated upon two approaches to G-DA: *Concurrent* and *Cumulative*. The concurrent G-DA involves all the students in the class and, to respond to an individual student's needs, asks for the participation of other students present in the class and sets the stage for their participation. However, in the cumulative G-DA, the mediator engages in an interaction with the particular individual who had faced difficulty up to the point of resolving his/her problems and in this way engages each student as primary interactant and, in turn, attempts to improve the ZPD of the entire group. Poehner (2009) further suggested that G-DA has the advantage of using more systematic classroom interactions that are adjusted to the learners' emergent needs and capabilities, and, as a result, can improve the efficiency of L2 education.

Studies Exploring the Role of DA-based Mediation in Writing

DA has been widely applied in assessment procedures in education, developmental psychology and second language pedagogy (see, e.g., Ableeva, 2010; Anton, 2009; Gibbons, 2003; Haywood & Lidz, 2008; Kozulin & Garb, 2002; Lantolf & Poehner, 2011; Lantolf & Thorne, 2006; Pena & Gillam, 2000; Poehner, 2007, 2008; Teo, 2012). Many studies on writing skills have explored mediation's feasibility in detecting the learners' problems, revealing their potential abilities and improving their writing. In this regard, the pioneering study is Aljaafreh and Lantolf's (1994) research project. The researchers investigated the effects of negotiation of negative feedback and other-regulation in the context of ZPD on developing learners' written performance in an ESL essay writing course. During the tutorial sessions, the individuals received appropriate mediation, which was *graduated, contingent, and dialogic*. They indicated that the provision of feedback on writing could be effective because it is systematically negotiated between the learner and the teacher and is provided at the right point or within the learner's ZPD. Nassaji and Swain (2000) also pointed out that the ZPD-sensitive and negotiated help can be more effective than randomly provided help in enabling the learners to resolve their writing problems.

The studies that have more specifically targeted and explored the role of DA-based mediation in writing, Xiaoxia and Yan (2010) have found that the dialogic way of teaching resulted from adopting a DA-based instruction great help in enhancing learners' writing interest and improving their writing competence. Shrestha and Coffin (2012) also indicated that DA has a diagnostic capability in enabling the mediators to identify and respond to the areas that students need the most support. Such a learning theory-driven approach can contribute to the students' academic writing development. Moreover, Alavi and Taghizadeh (2014) indicated that learners have different ZPDs regarding noticing and developing writing skills and strategies. Teachers' mediation has a positive impact on improving the

internalization of writing content and organization skills strategies of L2 learners. Besides, Rahimi, Kushki and Nassaji (2015) proved the diagnostic and treatment effect of interactionist DA. Shrestha (2017) also found that dynamic assessment may contribute to the transfer of genre features and conceptual knowledge to new assessment contexts. The students also believed that DA was more relaxed and comfortable and helped build their academic writing confidence. Shi, Matos, and Kuhn (2019) supported the positive role of a dialogic approach in promoting students' argumentative writing, especially for academically low-performing students. In the same vein, Negretti and Mežek (2019) indicated that "social interaction is crucial in supporting students' regulation of writing, effectively leading to an experience of individual learning and transformation" (p. 28). Finally, Afshari, Amirian and Tavakoli (2020) also confirmed that cumulative group dynamic assessment procedures were more effective than a conventional explicit intervention for supporting EFL writing development. However, Hidri (2020) maintained that DA did not advance test-takers' current thinking level into a more developed one, nor did it predict better cognitive modifiability in a dynamic assessment (DA) writing exam among ESP learners.

To sum up, almost all the studies reviewed above have confirmed ZPD-sensitive tutor mediation's capability to help the learners identify their problematic areas and enhance their performance quality. However, there is very few studies which have explored the nature of mediation in the G-DA framework while working with a group of learners enjoying from different ZPD levels and how such an endeavour can affect different competency level learners' (i.e., more- and less-skilled student writers) response to the mediation offered and whether it can lead to the improvement of their writing ability or not. Accordingly, as part of a larger exploratory project, the present paper reports the implementation of G-DA in a writing course and elaborates upon the nature of mediation offered and the range of mediational strategies used. Also, the varying effects of the feedback and mediation offered on the performance of different competency level learners (that is, the varying effects of mediation for more- and less-skilled student writers) and their writing improvements will be examined. More specifically, the present study attempts to provide some insights about the following research questions:

1. Is there any significant difference between the performance of more- and less skilled student writers in the non-dynamic writing (pre- and post-) tests and their in-class assessment tasks as a response to the mediation received?
2. What are the dominant typologies of tutor mediation and learner reciprocity moves in the writing classroom, and how can they provide some information about learners' writing development?

Method of Study

Setting and Participants

The present study, following a mixed-methods design and as part of a larger project which experimentally investigated and compared the efficacy of systematic feedback offered within the frameworks of G-DA versus N-DA approaches to assessment, reports the implementation and results of a DA-based intervention on the writing development of 15 sophomores (8 males and 7 females) intermediate proficiency level Iranian EFL learners in a State

University in Iran. The students attended the writing class one session in a week lasting for the whole semester (16 weeks) and benefited from a DA based instruction. They received instruction on different support techniques and paragraph development methods by the instructor-researcher of the present study. All the students in the class received the same instruction and feedback in the classroom sessions. However, for data analysis and comparison of different proficiency level learners' responsiveness to mediation, their scores in the writing pre-test were used to group them as more- and less-skilled student writers, 5 and 10 students in each category, respectively.

Materials and Instruments

(Non-dynamic) writing tests: As for exploring the students' overall writing development as a response to the mediation offered, two non-dynamic writing tests were used in the study. As for the first test, which was given to the students in the first session and served as the pre-test, the students were asked to write a paragraph about this topic: *Why do/don't you like teamwork?* They were given no further instruction and were free to use their previously-acquired knowledge of writing. This test was employed to provide information about the learners' writing ability before instruction, and the learners' performance on this test was to be compared with their subsequent performances. As was mentioned, this writing test score served as a criterion to separate more- and less-skilled student writers from each other. In the second non-DA test, the students were asked to write a composition not shorter than 250 words on the topic "*Mass media*" and elaborate on it using different paragraph support and development methods such as definition, classification, and cause-effect. It was supposed that due to the length and the use of different modes of development demanded, the task would be highly complex and demanding, and its completion would require the learners to apply more sophisticated levels of mental functioning.

In-class writing assessment tasks: To assess the efficacy of mediation offered to improve the students' writing, their written samples (a total of 9 compositions for each individual) during the semester were collected, assessed and commented on. In fact, after receiving the intended instruction, the students were required to write a paragraph on a given topic and support it based on different methods/techniques of paragraph development (e.g., description, anecdote, process, facts and statistics, comparison and contrast and cause and effect) as a response to the instruction offered in the class. It is worth mentioning that while completing these tasks, the students benefited from the instructors' ZPD-sensitive mediation and feedback. These tasks were also used to compare learners' overall performance and writing development with different competency levels.

Writing scoring scale: In order to comprehensively assess the learners' performance on the writing tests and in-class assessment tasks, a writing scoring rubric developed by Paulus (1999) was used. The main reason for choosing this scoring guide was its capability to provide an analytical assessment of different aspects of the students' writings and a holistic final assessment score. This scoring guide is based on a ten-point scale. The students' written tasks were assigned a score on the scale from 1 to 10 for each of the following writing aspects: organization, development, cohesion, structure, vocabulary, and mechanics. Then, based on the features of the scoring rubric, a simplified and student-friendly grading scale was developed by the researchers so that it would be easily attached to the students' written

drafts and would provide them with some information and comments regarding the quality of their performance, the problematic areas in their written work and what they needed to do in order to improve their performance in subsequent drafts. A point worth mentioning is that almost all the learners' drafts were analyzed by both the researchers, and the inter-rater consistency in scoring the drafts and offering the comments were ensured.

Analytical tools to identify tutor mediational and learners' reciprocity moves: To systematically analyze the mediation data obtained in the present study and explore whether and how they could assist the learners in improving their writing, Poehner's (2005) typologies of tutor mediational. Learners' reciprocity moves were used to qualitatively analyze the transcribed data from a DA intervention session (see Appendix A). The scale used to investigate mediational moves' patterns comprises 15 forms of mediation, arranged from most implicit to most explicit. This scale was developed based on Aljaafreh and Lantolf's (1994) 13-point regulatory scale in which the mediation offered by the tutor ranges from some implicit leading questions to explicit explanations and corrections. The scale used to identify the patterns of learners' reciprocity moves has nine levels and was used along with the above scale to show the learners' responsiveness and contribution to mediation.

The Procedure of Data Collection and Analysis

In order to apply the principles of DA in the classroom setting, the instructor-researcher employed an interactionist model of DA and carried out the intended mediation based on the cumulative model of G-DA. More specifically, the intended procedure was conducted based on Gal perins' (1967, as cited in Poehner, 2008) model of human action, which consisted of three stages of orientation, execution and control and was used based on the principles of G-DA in the DA classroom. In the orientation phase, which had the main goal of familiarizing the learners with the writing tasks and how to do them, the instructor introduced different techniques of paragraph support (e.g., giving details, explanations, examples, anecdotes, facts and statistics) and methods of paragraph development in writing (namely, narration, description, compare and contrast, cause and effect) and described their specific features to the learners. In addition, directing the students' attention to some written samples, the instructor helped them systematically analyze and understand each writing task's demands to write through interaction.

In the execution phase, the learners used the available resources and teacher mediation to perform the task and finally wrote about an assigned topic. Due to the nature of the course and a large number of students present in the class, the instructor used the interactionist form of DA, which made it possible for her to provide more flexible mediation strategies based on the learners' emergent and developmental needs and the cumulative format of G-DA, which provided her with the opportunity to negotiate and engage directly with individual learners and to offer them mediating prompts up to the point that they could resolve their problems. The tutor engaged in a dialogue with the students to identify their ZPD levels and provide the appropriate assistance.

As for the control phase, which has the main goal of determining the extent to which tasks are successfully being carried out and helping the learners to reflect upon their performance and verbalize the reason behind their choices, the instructor walked into the classroom and

examined the learners' problems and engaged in a negotiation with the learners who were struggling in their performance or had some problems in writing their compositions which needed reconsideration. However, since this study was conducted in a classroom setting with a relatively large number of students, due to time limitations, the instructor was not able to engage all the individuals in the interactions all the time or attend to every individual student's composition every session in order to improve their ZPDs; therefore, the control phase usually continued to the next session in which the students received their assessed and commented drafts and became familiar with the degree of their success in appropriately performing and fulfilling the demands of each task. Also, to give an active role to the learners in the feedback practice and make them realize the objectives and benefits of feedback offered, they were required to revise their drafts based on the feedback and comments received and return them to the instructor session.

Finally, the teacher-learner interactions in a DA intervention session were audio-recorded to determine the patterns of tutor-mediational and learner-reciprocity moves in the intended mediation and identify how to incorporate systematic and ZPD-sensitive mediational strategies. The learners' contribution to this process can lead to their writing development. The collected data were analyzed to shed some light on the nature of mediation in a writing class and how it can respond to the learners' individual needs and move the ZPD of the entire group forward. The possible differences in the writing performance and development of more- and less-skilled student writers were examined.

Results

The first research question explored the varying effects of mediation on more and less-skilled student writers' writing development. At first, the learners' gain scores based on their performances on the non-dynamic writing pre- and post-tests were computed. An independent-samples t-test was run to see any significant differences in the two groups' performances due to the mediation. As the results in Table 1 indicate, there was not a statistically significant difference between the mean gain scores of the more-skilled ($M=9.00$, $SD=2.44$) and less-skilled student writers ($M=12.21$, $SD=2.31$) from the pre-test to the post-test ($t(29.489) = -2.486$, $p = .911$, $Eta\ square = .159$). The results of the comparison of the mean gain scores of the two groups suggest that both groups have equally improved their writing as a response to the mediation offered. However, the mean score of the less-skilled students is higher than the more skilled group, which might point to the fact that the mediation offered had been more effective for these low achieving learners.

Table 1

Descriptive statistics and results of independent samples t-test for more- and less-skilled student writers' gain scores from pre-test to post-test

Group	N	Mean	SD	T	df	Sig. (two-tailed)
More-skilled	5	9.00	2.44	-2.486	13	.127
Less-skilled	10	12.21	2.31			

* $p = .911 > 0.05$

Moreover, in order to obtain a more comprehensive picture of the overall writing development of the students in the two groups, a mixed between-within subjects analysis of

variance (ANOVA) was run to compare the students' performances on all the writing tasks they did throughout the semester (i.e., a total of nine assignments). Table 2 presents the descriptive statistics derived from this analysis.

Table 2

Descriptive statistics of scores on all writing tasks done by more-skilled and less-skilled student writers

Writing Tasks	Groups	Mean	SD
Task 1	More skilled	32.34	2.94
	Less-skilled	33.26	3.51
Task 2	More skilled	31.59	3.79
	Less-skilled	31.14	5.46
Task 3	More skilled	31.04	1.98
	Less-skilled	29.17	2.08
Task 4	More skilled	34.10	5.94
	Less-skilled	29.62	5.43
Task 5	More skilled	36.00	3.14
	Less-skilled	31.58	3.78
Task 6	More skilled	35.40	3.41
	Less-skilled	33.90	3.42
Task 7	More skilled	34.80	4.29
	Less-skilled	32.78	3.84
Task 8	More skilled	38.00	4.96
	Less-skilled	38.10	1.82
Task 9	More skilled	40.69	2.28
	Less-skilled	40.34	3.58

Close examination of the students' performance on these assessment tasks and the comparison of mean scores of the two groups indicate that the more-skilled student writers have performed better than their counterparts in most cases. However, in some cases, the differences are negligible, and there are some fluctuations in the learners' performance. Since learners have performed on varying levels of complexity, such fluctuations in their performance seem quite natural and can be considered part of the development process.

Furthermore, according to the results of the repeated-measures analysis (mixed between-within subjects analysis of variance), which are presented in Table 3, there was not a significant interaction between time and groups (*Wilk's Lambda*=.350, $F(1, 13) = 1.393$, $p = .353$, *Partial eta squared*=.650). This suggests that the students' writing scores in the two groups have experienced rather similar changes over time/across the nine tasks. The intended treatment has been rather equally effective in helping the students improve their writing ability. However, there was a significant main effect for time (*Wilk's Lambda*=.030, $F(1, 13) = 23.896$, $p = .001$, *Partial eta squared*=.970). This finding indicates that both groups of students have shown substantial improvement in their writing ability through time, and, as the value of Partial Eta squared shows, the effect of (the treatments over) time has been large.

Table 3

Results of repeated-measure ANOVA for scores on all writing tasks done by more-and less-skilled student writers

Multivariate tests (of within-subject effect)	Effect	Wilk's	<i>F</i>	<i>Hyp. df</i>	<i>Error df</i>	<i>Sig.</i>	Partial Squared	Eta
		Lambda value						
	Time	.030	23.896	8.000	6.000	.001	.970	
	Time*Group	.350	1.393	8.000	6.000	.353	.650	

Tests of between-subject effect	Group	Type III Sum	<i>Df</i>	Mean Square	<i>F</i>	<i>Sig.</i>	Partial Squared	Eta
		of Squares						
		73.186	1 (13)	73.186	1.760	.207	.119	

Furthermore, as can be observed in Figure 1, the more-/high-skilled student writers have shown a better performance than the less-skilled ones in most assessment tasks, but, as was mentioned, this difference has not been large enough to reach a significant level.

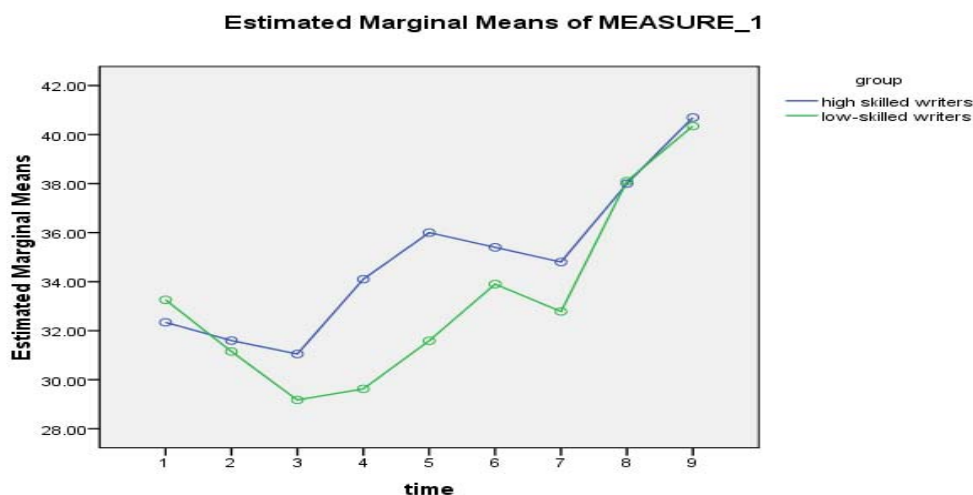


Figure 1. Comparison of assessment task scores of more- and less-skilled student writers across time

Tutor-student interactions during a G-DA intervention session were recorded and analyzed to determine their insight and lead to the learners' writing development. In the present study, as mentioned earlier, the instructor applied an interactionist DA in which mediational strategies are offered more flexibly, compared to the fixed intervention in the interventionist DA. The mediation was conducted based on the cumulative format of G-DA. The mediator engages with a single student to resolve their problem and, using such a procedure, attempts to move the ZPD of the entire group forward. After receiving the intended instruction for the sessions, the students started working on their drafts and the tutorial sessions in which the instructor became a dialogic partner began. In fact, during the DA sessions, the instructor walked in the classroom and examined the learners' drafts, and if she observed a problem in the students' drafts or responses to their requests for help and comment, she engaged in a negotiation with those who were struggling. Due to space limitations, only two of these interactions are presented. In the selected illustrative example below, a student wants the instructor to check

whether the topic sentence she has written is appropriate or not; therefore, the instructor tries to create a *collaborative frame* and engages in an interaction with that student:

1. S: ...is it a good topic sentence?
2. T: Hmm (the instructor starts reading the topic sentence) Ok, do you think it is interesting?
3. S: It is too interesting.
4. T: Too interesting! Positive or negative you mean?
5. S: Negative. ...no really I think it's interesting.
6. T: Ok, good! Could you read it and see if there is anything... wrong about the relationship between the two clauses?
7. S: (starts reading and engages in a kind of private speech)
8. T: What kind of relationship do you see here?
9. S: Contrast!
10. T: Contrast? Ok, if you think it's contrast, do you think the transitional word is suitable?
11. S: *But*.....
12. T: The whole story of what....
13. S: (reads, but without giving a reply)
14. T: So you have tried to provide causes and effects. How about the relationship between these causes and effects?
15. S: (starts reading: ... *if the world is something better, it results in your satisfaction*...). Actually....so....
16. T: Which one shows the relationship better: a single sentence linking the two ideas, the causes and effects in a single sentence, or putting them into two different sentences? What's your idea?
17. S: I think it's Ok, because it shows the relationship, the cause and the effects.
18. T: Now what about these two. What is the cause and what is the effect? Have they been linked appropriately?
- ...
19. S: do I need to make a new sentence?
20. T: No..., what is this? Is it a comma?
21. S: No ... It's a full stop.
22. T: So when you put a full stop, do you see the relationship clearly?
23. S: (reads and explains in a kind of private speech) I think it's Ok!
24. T: Ok?
25. S: Oh! I noticed it's simple again...
- ...
26. T: But can't youas you see it's not that interesting...can you change it in a way... do you remember I told you when a topic sentence is a fact, you can change it to something interesting by adding....?
27. S: Our opinion?
28. T: hmm! Can you change it in way that shows your opinion
29. S: Ok, I'll try...

30. T: ... or the contrast between what people say and your own opinion...
31. S: Ok, you're right, thank you!
32. T: Do your best
- ...
33. S: (the student revises her topic sentence and a few minutes later finds the opportunity to ask the instructor to check it again) This way is ok or not?
34. T: The above sentence you mean. Do you think it's more interesting?
35. S: Yes.
36. T: Ok, I do agree with you!

In the above protocol, the student starts the mediation and asks the instructor to check the topic sentence's appropriateness. The instructor reads the sentence without providing any comments. In fact, as an implicit strategy for assistance, she asks the student's idea about what she has written (i.e., an elicitation question). However, since the instructor finds a more immediate problem in the surface structure of what the student has written, she postpones discussing whether the topic sentence is interesting or not to the end of the mediation session. In fact, by asking a question (line 6), which is a type of request for verification, she somehow identifies the student's problem. She even points to the specific part which needs improvement (as some mediation strategies).

In most cases, the student contributes to the mediation by reading the specified part but gives no response. Therefore, the instructor provides some metalinguistic clues, asks another implicit/leading question (line 14), and again provides clues about the problem's solution. If the learner does not understand what the tutor means or responds incorrectly, the tutor provides more leading questions and clues. As soon as the learner identifies the problem and the instructor, based on her understanding of the learner's ZPD level, is sure that she can solve the problem independently, she returns to the issue raised at the beginning of the mediation (i.e., whether the topic sentence is interesting or not). Again the instructor provides some explanation and, by pausing (line 26), provides an opportunity for the learner's contribution. The instructor provides a suggestion as to the possible solution to the problem, and in the end, we see the learner has incorporated the feedback offered and has solved the problem.

As the instructor is busy looking at some students' drafts and encouraging them to move along, another student brings and shows her written draft. The instructor notices some problems in her draft, especially concerning the incorrect use of vocabulary. Therefore, she engages in mediation with her:

Example 2:

1. S: I have written about *Economy*.
2. T: (the instructor reads some parts of her draft) Ok, a good argument, but there are some problems regarding the structures and words... what does this word mean?
3. S: *Invested* (she gives the translation of the word in Persian)...
4. T: Are you sure?
5. S: (a rather long pause!)
6. T: It's a false friend of something else. Can you remember it? What is it?
7. S: *Investment!*

8. T: (laughs) ... and the other about the collocation?
9. S: *Investing...*
10. T: (reads along with the student) ...*investing this money* ...
11. S: (gives an incorrect response)
12. T: No, the preposition that collocates with *invest...*
13. S: *For?*
14. T: Ok, you can think of it, *investing* ...
15. S: *In...*
16. T: Ok, *in....*

In the mediation, after reading some parts of the learner's draft, the instructor comments that the argument, which refers to the organization and development of her ideas, is rather good. However, there are some problems in the structure and vocabularies used (line 2). During the mediation, the instructor identifies the specific error and asks the learner for verification and explanation. When the learner gives no response, she provides more metalinguistic clues and encourages her to think more and find the correct word. As soon as the learner provides the correct response, the instructor refers to the second related problem's nature. She reads the specified part along with the learner, and when the learner responds incorrectly, she makes her comment more specific (line 12) and works with the student until she reaches the correct answer.

As the analysis of the recorded protocols indicated, the instructor used a variety of implicit and explicit mediational strategies/moves in her interaction with the students in order to gain insight into their ZPDs regarding the issue of concern, to help them resolve the problems encountered, to have a better performance on the intended task and, hence, promote their learning as the examples cited here and the instances in the whole recorded session show, the most frequent moves used by the instructor were a *request for verification* by using some elicitation questions and the *provision of some metalinguistic clues and explanations*. As for the learners' reciprocity moves, most learners showed some degree of *unresponsiveness or incorrect responses*. Based on the instructor's further mediations and her continuous explanations and encouraging/motivating comments, they were finally changed into incorporating feedback and overcoming *the problems*. Moreover, in some cases, the instructor has required the learners to *provide more explanations* for their responses. This shows the instructor's successful use of mediations to properly identify the learners' ZPDs, help them move beyond their current performance levels, and improve their learning. Finally, in this recorded session, it was noticed that, when the instructor observed a common problem in most of the learners' drafts, she provided the whole class with further instruction and moved the ZPD of the entire group forward (e.g., as a response to the students' problems in the use of punctuation marks).

Discussion

The first research question in the study explored the possible differences in the writing development of learners with different competency levels. It was observed that the mediation offered had been equally effective in improving the more- and less-skilled student writers'

performance. The effectiveness of DA in helping the learners to promote their learning is confirmed by several studies conducted on writing (e.g., Afshari et al., 2020; Alavi & Taghizadeh, 2014; Rahimi, Koushki, & Nassaji, 2015; Shi et al., 2019; Shrestha & Coffin, 2012; Xiaoxia & Yan, 2010). The present study results indicated that DA, by integrating assessment and instruction, can systematically provide insights into the learners' problems and capabilities and can more accurately assess their performances and thus promote their learning and development. The learners' mediation can allow the mediators to learn more about learners' strengths and weaknesses and provide an appropriate level of assistance that can help the learners learn the required knowledge and skills and perform autonomously on similar or more complex tasks later on. The effectiveness of G-DA in improving the writing competence of the learners can also be interpreted in terms of the appropriacy of the corrective feedback provided and meeting the conditions of CF that needs to be "contingent," "graduated," and "dialogic" (Aljaafreh & Lantolf, 1994, p. 468).

Moreover, the collaborative nature provided during the DA sessions reduces the learners' stress while working on the assessment tasks and the ZPD-sensitive mediation/assistance, which systematically unravels the learners' current status and their learning potentials, can prevent misinterpretations of the learners' abilities and, if appropriately implemented, can enhance the quality of their performance on the intended assessment tasks (Ajideh & Nourdad, 2012). Therefore, it can be asserted that the findings of the present study confirm the idea that the dialogic way of teaching can be of great help in increasing the learners' writing interest and improving their writing ability (Xiaoxia & Yan, 2010). It should be reiterated that, in the present study, the mediator conducted the DA sessions in the writing course based on the principles of G-DA and the findings of the study supported the feasibility of DA in the classroom setting while working with the ZPD of the entire group (see, e.g., Poehner & Lantolf, 2013). The fact that less skilled learners have benefited more from the mediation offered is in line with the finding of Afshari et al. (2020) finding that writing improvement as a result of the mediation offered was higher for low and mid ability learners compared with high ability ones who have already resolved the problems encountered by other learners and are at higher levels in their interlanguage and writing competence.

The second research question focused on exploring the nature of mediation offered in DA sessions. The transcribed data analysis revealed that the instructor used various implicit and explicit strategies in her interactions with the DA students. More specifically, request for verification, for which the instructor used elicitation questions, and provision of metalinguistic clues and explanations were the most frequent moves used by the mediator. Based on the mediator's understanding of the learners' ZPD level, which was revealed based on her engagement with them in several treatment sessions and the specific problems in their drafts, the learners were asked some elicitation questions. They were required to explain their choices up to the point of gradually reaching the ultimate/satisfactory solution to the problems. These questions and answers, which were sometimes the sole strategy in the interactions, were accompanied and informed by a set of metalinguistic clues and explicit explanations on the part of the mediator to provide the learners with some general and context-specific guidance/information about the issue of concern and to promote their learning.

As for the learners' reciprocity moves, it can be said that sometimes due to the (linguistic) complexity of the problems and the learners' insufficient competence and knowledge in some aspects of writing; the subjective nature of some problems encountered (e.g., *the effectiveness of topic sentence*); the learners' workloads due to working on the whole text, which required a high degree of alertness and concentration on every aspect of writing, they sometimes were unresponsive or provided incorrect answers to the mediation offered. However, as the mediations moved forward, the instructor employed more (explicit) strategies, and the learners understood what they should do; they incorporated the feedback and overcame the problems. Therefore, it can be claimed that based on the requirements of the assessment context and the learners' needs, a variety of tutor mediational and learner reciprocity moves were used in the present study; however, as Alavi et al. (2012) believe, no mediational inventory can be prescriptive and because the strategies offered are based on the specific group of learners' emergent abilities and their corresponding needs, the patterns of mediational strategies used in the interactions between the mediator and the learners, in the present study, are not generalizable to other interactions with other learners and in different contexts. DA is highly dependent on the mediational skills to reveal different learning abilities in problematic writing (Davoudi & Ataie-Tabar, 2015). In fact, the present study's evidence confirms the idea that DA helps the teachers diagnose the students' problem areas, provides new insights into learners' writing needs and developmental details and can improve learners' writing.

In addition, some cultural factors, different personalities of the learners and their learning styles can account for the different types of mediational strategies which may emerge in different studies. For example, some learners may naturally or culturally be less cooperative and like to work individually to accomplish the tasks. They may not favour the collaboration and interference of an outsider in their work, and despite facing a problem, they might not seek the mediator's assistance. Similarly, in the present study, as the mediator sometimes commented, some of the learners, in the initial sessions of experiencing the mediation, did not seek mediation when they encountered a problem or sometimes even covered their drafts with their hands to avoid the tutor's intervention. Another important point to consider is that, as observed in some cases in the present study, the learners' expectations of the type of assistance they should receive may lead to their unresponsiveness. In other words, they may only favour or seek an explicit type of mediation, which immediately guides them towards the intended solution to the problem and may not know the purpose of the mediator's elicitation questions or gradual movement from implicit to explicit strategies. In the same regard, Kheradmand and Razmjoo (2017) maintained that individual learner characteristics, time, language features were chosen to provide feedback; the mediator's role, learners' responsiveness to mediation, and agency were important in specifying mediation types.

Overall, the study's findings revealed that mediation substantially affected the DA students' writing. This finding lends further support to some DA practitioners' (e.g., Alavi & Taghizadeh, 2014; Aljaafreh & Lantolf, 1994; Poehner, 2007, 2008; Poehner & Lantolf, 2013) idea that because DA benefits from mediation and uses the insights gained by the consideration of learners' ZPDs, it can provide richer and more reliable information about the problematic areas in learners' performance and thus can enhance their learning potentials and

capacities for further development. The collaborative frame is created through the presence of a 'dialogic partner' and the interactional and inter-psychological activities they engage in drive learners' development in writing (Poehner & Infante, 2015).

Conclusion

The present study's findings confirmed the feasibility of implementing DA-based instruction while working with a group of learners and attempting to move the ZPD of the entire group forward. On the whole, it can be claimed that the systematic feedback offered within the frameworks of the DA, in which the students benefited from a ZPD-sensitive tutor mediation during the assessment, could assist the learners with the internalization of the acquired knowledge, improvement in writing and attainment of the level of independent performance to perform equally well when working on the more challenging writing tasks. However, in implementing the intended treatment, the instructor faced some obstacles, and also, some shortcomings were identified, which can be regarded as the limitations of the study. For example, at the beginning of the intervention, most students were (culturally-/personally-) resistant to the mediation and preferred not to participate in the process. The instructor faced a challenge to implement the DA sessions appropriately. It took time for her to overcome this affective hurdle and successfully engage the learners in the mediation sessions.

Moreover, the large number of students in the class and the time-constraints did not allow for extensive and extended tutor-learner interactions; consequently, sometimes the instructor did not find the opportunity to engage all the learners, and there was not enough time for all the learners to ask their questions and resolve their problems. This is an important issue that has affected the quality of the tutor-learner mediations and has decreased its effectiveness. Therefore, as Shrestha (2017) admits, despite the positive effects of DA on improving the students' writing, implementing a DA approach on a large scale has practical constraints due to the time needed and the intensive nature of the one-on-one dialogue. Furthermore, due to the complexity of the endeavour as well as some practical constraints and in order not to sensitize the learners to the mediation process/treatment, it was not possible to record all the interventions to see how the other mediational strategies were manifested in tutor-learner interactions, to examine how the nature of mediations changed from the beginning to the end of the writing course and to gain more insights into the students' changing ZPDs and the effects of mediation on the students' writing development. An area in which the future studies on G-DA studies on writing in classroom contexts should attend. In addition, further G-DA studies should be carried out in other language skills and components, investigating learners with different proficiency levels and ages and also in a variety of contexts to show the impact of DA on the students' performance and to see the effects of both learner variations and contextual/cultural factors on the successful use of mediational strategies and the types of tutor mediational and learner reciprocity moves that may emerge from the interactions. Finally, as Mardani and Tavakoli (2011) suggested, some programs can be designed to assist the teachers in providing high-quality mediation because the mediating behaviour of teachers highly influences DA.

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Appendix A. Poehner's (2005) typology of tutor-mediational and learner reciprocity moves

Tutor-mediational moves	Learner reciprocity moves
1. Helping Move Narration Along	1. Unresponsive
2. Accepting Response	2. Repeats Mediator
3. Request for Repetition	3. Responds Incorrectly
4. Request for Verification	4. Requests Additional Assistance
5. Reminder of Directions	5. Incorporates Feedback
6. Request for Renarration	6. Overcomes Problem
7. Identifying Specific Site of Error	7. Offers Explanation
8. Specifying Error	8. Uses Mediator as a Resource
9. Metalinguistic Clues	9. Rejects Mediator's Assistance
10. Translation	
11. Providing Example or Illustration	
12. Offering a Choice	
13. Providing Correct Response	
14. Providing Explanation	
15. Asking for Explanation	

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