The Impact of Task-Based Collaborative Output Activities on Learner Engagement in Writing Tasks

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Abstract
The present study explores the factors that shape learner engagement in writing tasks and the role that output-based instructions could perform in elevating the level of engagement. In so doing, to develop a measure for evaluating learner engagement in writing tasks, a pool of eight university teachers was interviewed and five university students participated in a think-aloud protocol and a total of 139 English-major university students were asked to complete the newly-developed inventory. The result of inter-coder reliability was acceptable and Structural Equation Modeling (SEM) provided support for the factor structure of the measures. The final validated inventory comprised four factors and 23 items. Following this, the findings obtained from an experiment on 31 English-major students revealed that both types of task-based (collaborative) instructions including debating and dictogloss could elevate the level of students' engagement in writing tasks. More specifically, the statistical analyses indicated that the debate-based instruction could increase the students' engagement in writing tasks more than the dictogloss instruction. In the end, the linkage between task-based (collaborative) output activities, engagement in writing tasks, and engagement components were discussed, and the pedagogical implications were offered based on the results of the study.

Keywords: learner engagement, debating, dictogloss, written performance, emotions

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Introduction

The conventional view in language classes presumes that writing functions mainly to develop patterns of oral language use, grammar, and vocabulary (Crowhurst, 1991). However, this view is being substituted by the idea that writing in a second language is a meaningful activity in and of itself. As pinpointed by Persky et al. (2003), writing is generally used in various communicative activities such as creating academic essays, writing business or newspaper reports, or web pages and e-mails. Likewise, Naghdipour (2016) emphasized the need to be proficient in English writing skills, taking the increasing development of globalization and the importance of worldwide communication.

Learner engagement in task performance, as an interesting topic for scholars in education (Fredricks et al., 2004), has been underrated in the domain of SLA (Aubrey, et al., 2020). In general, learner engagement is referred to as the cognitive and emotional involvement of the learners in doing a learning task (Schunk & Mullen, 2012). In the last two decades, studies have demonstrated solid evidence for the direct relationship between student engagement and academic success, and for the significant relationship between disengagement and poor academic performance (e.g., Kelly, 2008; Sirin & Rogers-Sirin, 2004). Furthermore, the notion of language engagement is closely linked to Csikszentmihalyi's (1990) Flow Theory based on which concentration, interest, and enjoyment must be experienced at the same time in an activity in order for flow to occur.

Taking the interplay between task-based instruction and learner engagement in writing, Hyland (2019) notes that writing is more than a matter of arranging elements in the right order which represents the challenging nature of writing skills. According to Shernoff et al. (2003), learner engagement is linked to challenging tasks, and it is affected by contextual and classroom factors such as instruction and interaction. One of these creative task-based instructions that could enable students to enhance their L2 writing ability is dictogloss which, as a task-based (collaborative) output activity, could assist learners to employ their grammar resources to reconstruct a text (Benati, 2017). Another task-based instruction that is in line with process-oriented approach to writing instruction is debate-based instruction. According to el Majidi et al. (2020), although debate is generally interwoven with oral communication, it is also useful for L2 writing instruction.

Meanwhile, in their seminal work, Hiver et al. (2021) represented the first systematic review of 20 years on language engagement research taking both conceptual and methodological issues into account, and the results of their analyses revealed that there is a very little construct-validating research on language engagement. Likewise, Fredricks and McColskey (2012) noted that the most frequently used approach to measuring engagement is self-report which cannot capture the multidimensional nature of engagement. Whereas engagement is highly context-dependent (Shernoff, 2013), reviews of measurement techniques for engagement show that the number of valid indirect measures of student engagement is very few (Hofkens & Ruzek, 2019). In a similar vein, to the best knowledge of the researcher, there is a paucity of research in the Iranian context to identify the indicators and constructs of

learner engagement in writing tasks. Moreover, the role of task-based speaking activities in learner engagement in writing tasks has not been a focus of research in our classroom context. In this study, learner engagement at the level of task engagement is defined as "a state of heightened attention and involvement, in which participation is reflected not only in the cognitive dimension, but in social, behavioral, and affective dimensions as well" (Philp & Duchesne, 2016, p. 54).

Review of Literature
Learner Engagement and SLA

A large number of published studies show that learner engagement has a direct relationship with satisfactory academic outcomes such as higher academic success (e.g., Finn & Zimmer, 2012; Fredricks et al., 2004). More specifically, in the language classroom setting, Ellis (2018) declared that exploring engagement through task-based instruction is informative because it stimulates learning cognitive processes like noticing that would enable students to absorb the L2 more successfully. Actually, task engagement is closely related to the notion of increased attention and involvement while accomplishing a learning task (Philp & Duchesne, 2016). In the Iranian context, the existing related literature reveals that engagement affects the teachers' and learners' academic performance (e.g., Fathi, et al., 2021; Hamedi et al., 2020; Modarresi, 2019; Shahian et al., 2017).

Taking the existing engagement models into consideration, previous research in the field of language learning acknowledges a combination of factors for learner engagement (Handelsman et al., 2005; Reschly & Christenson, 2012). For example, Skinner and Belmont (1993) found clear reasons for emotional and behavioral engagement; however, lack of attention to cognitive engagement left their model unexamined. Later, Fredricks et al. (2004) extensive analysis of engagement has guided many scholars to follow their model of engagement; nevertheless, having analyzed different models, they detected overlapping factors for cognitive and behavioral engagement. In the same vein, Handelsman et al. (2005) designed and validated a questionnaire for evaluating student engagement called the Student Course Engagement Questionnaire with four distinct dimensions including: skills, participation/interaction, emotional, and performance engagement. More recently, having reviewed the related literature, Redmond et al. (2018) developed an online engagement framework for higher education, categorizing a list of 24 indicators of engagement.

Task-Based (collaborative) Output Instructions

Much of the greater part of the literature acknowledges the effectiveness of (collaborative) tasks in promoting learning development (Ellis, 2018; Leow, 1998). For instance, Leow (1998) found that when learners devote their attention to grammatical items, their writing accuracy is enhanced. More specifically, Collins (2007) confirmed the effectiveness of Dictogloss, as a task-based (collaborative) output technique, in using verb tenses in a Japanese classroom. Whereas Dictogloss has been documented to be effective in L2 research (Malmqvist, 2005), the number of studies that examined its applicability with respect to proficiency level is few (Gallego, 2014).

The related literature has also showed that there is a positive association between debating and language development (el Majidi et al., 2018; Stewart, 2003). Furthermore, the previous literature indicates that L2 learners have a positive reaction to debating as an instructional tool (Doody & Condon, 2012; Lustigova, 2011). Recently, el Majidi et al. (2020) investigated the effectiveness of debate instruction in writing development in the context of secondary school and concluded that debate-based instruction enhanced students' writing performance, representing an increase in a number of indices of accuracy, fluency and complexity measures. More recently, Modarresi (2021) found that both dictogloss and debating instructions could significantly enhance L2 learners' writing performance, representing an increase in a number of indices of accuracy, fluency and complexity measures.

Theoretical Framework of the Study

The researcher opted for the theoretical underpinning developed by Philp and Duchesne (2016) for learner engagement in the task-based language classroom entailing four interrelated components: behavioral, affective, cognitive, and social engagement. Moreover, the next interdependent theoretical perspectives the support the idea that dictogloss and debating as task-based speaking activities are effective tools for language learning include Long's (1996) interaction hypothesis based on which engagement in meaning promotes learning and Swain's (1993) output hypothesis based on which output enables learners to produce language more deeply.

Taken together, the researcher tried to construct a measure for evaluating engagement in writing tasks. To the best knowledge of the researcher, no empirical study has been carried out in L2 research to identify the factors that shape learner engagement in writing tasks for intermediate EFL learners in the Iranian context. The study hypothesized that task-based (collaborative) output activities could enhance learner engagement in writing tasks. Therefore, the following research questions are addressed in this study:

RQ1: What factors do mainly determine learner engagement in writing tasks for Iranian EFL learners from the perspectives of university teachers and students?

RQ2: Does the engagement in writing inventory enjoy construct validity?

RQ3: Do dictogloss and debating increase learner engagement in writing tasks?

Methodology
Participants

At first, to discover the university teachers' views on the different factors of learner engagement in writing tasks, the researcher opted for criterion sampling to choose the participants for the first phase of the study. In doing so, he set the standards needed to the objectives of the study and looked for the participants who met those requirements. The standard specified by the researcher included: a) being an English university teacher, b) holding a PhD degree in English language, and c) having experience of publishing scientific papers on teaching and learning English. Altogether, a pool of eight individuals

took part in the interview phase of the study from different universities including Ferdowsi University of Mashhad, University of Neyshabour, University of Bojnord, Islamic Azad University of Mashhad, and Islamic Azad University of Quchan, all located in the northeast of Iran. Moreover, five students were selected to participate in 'concurrent think-aloud protocol' (Ericsson & Simon, 1993) to identify the factors that contribute to engagement in writing based on purposive sampling. Following this, after the new inventory was developed, 139 participants majoring in English Language Teaching, English Translation, and English Literature who were junior and senior students (females: n = 81, 58.30%; males: n = 58, 41.70%; Mean age = 21.64, SD = 1.23) joined in the second phase of the study based on availability sampling from the same universities mentioned above. The study sample for the third phase of the study consisted of 37 English-major junior BA students selected based on convenience sampling from Islamic Azad University of Quchan. They participated in a supplementary course of Panel Discussion and Writing Development during the academic year. Moreover, the researcher administered the Oxford Quick Placement Test (OPT) to the participants for homogeneity purposes. Six of the students were not classified in intermediate level (two students in class A and four students in class B) so that their writing performance on the pre-test and post-test were not included in the data analysis. Thus, the final sample included in the experiment consisted of 31 intermediate students (class A =16 & class B =15) (females: n = 17, 54.80%; males: n = 14, 45.20%; Mean age = 21.48, SD = .96).

Instrumentation

The first instrument used to identify the teachers' opinions about factors contributing to L2 learner engagement in writing tasks included four interview open-ended questions based on which they participated in face-to-face interview sessions. The contents of the questions revolved around their familiarity with learner engagement, their experience of employing task-based activities, and factors that contribute to learner engagement or disengagement while doing writing tasks. As for the content validity of the interview questions, the researcher carried out a pilot study through which three non-participating colleagues provided feedback on the interview questions. Further revisions were made based on their comments on the wording of the questions.

The second instrument used to measure students' level of engagement in writing tasks was the Engagement in Writing Inventory which was developed and validated specially for the aim of this study. To do this, the results emerged from the content analysis of the interviews and think-aloud protocols, along with the previous related literature, supplied the contents of the items comprising the inventory. The inventory included a 5-likert scale with 'strongly disagree', 'disagree', 'nor agree or disagree', 'agree', and 'strongly agree'.

The last instrument utilized to measure L2 learners' language proficiency before the experiment was OPT which contains 60 multiple choice vocabulary and grammar items. The scoring criteria categorize the test takers into four levels of English language proficiency: elementary (1-14), pre intermediate (15-29), intermediate (30-44), and upper intermediate (45-50).

Those volunteers who were classified in intermediate level were included in the present study.

Procedure

The study was carried out in three major steps. During the first step of the study, the relevant information for the interviews with eight university teachers were collected during four weeks from September 2018 to October 2018. The sample size seemed to be adequate since, according to (Dörnyei, 2007), an interview study with a sample size of six to 10 might work well. The researcher already arranged the appointments with the participants, informing them about the purpose of the study. Their responses were also audio-taped for further analysis.

Moreover, in this respect, five students participated in concurrent think-aloud to verbalize what they were going through while they were engaged with a writing task. The researcher asked the participants to tell whatever they were thinking about while doing the writing task. The writing task included writing an essay on the topic "the advantages and disadvantages of living in a small city". The data were collected during three weeks from September 2018 to October 2018. The students' verbal reporting was audio-recorded for further analysis.

During the second step of the study, the study adopted a clear procedure entailing three phases to ensure the psychometric properties of the inventory. Initially, the question items were constructed with reference to the information collected from the interviews and the previous related literature on the issue. The items were designed on the basis of a four-component framework in accordance with Philp and Duchesne's (2016) guidelines, tapping into the students' behavioral, affective, cognitive, and social engagement in the task-based language teaching classroom. Second, as the initial piloting, three individuals, specialized in L2 testing and assessment, were asked to pinpoint the problems with the content and clarity of the items. Third, after the researcher received the feedback from the initial pilot group, he conducted the final piloting phase during which the relevant inventory was administered to 139 students from November 2018 to December 2018.

Finally, in the third step of the study, prior to the treatment phase, the students were made homogenous in terms of language proficiency by means of OPT, and then, they were divided into two experimental groups. Before the treatment phase, the researcher administered the Engagement in Writing Inventory to the students. The treatment phase lasted for eleven sessions beginning from January 2019 to May 2019 with classes holding once a week for 90 minutes for each group, and the teacher in both classes allocated approximately the first 45 minutes to free-opinion speaking tasks and the second 45 minutes of his time in each class to writing tasks. The participating teacher who was the author provided the instruction for both groups. Taking the experiment, class A, consisting of 15 students, was taught through dictogloss instruction and class B, consisting of 16 students, through debating instruction. Both instructions dealt with the speaking and writing activities, meeting the requirements of the course.

As for the dictogloss group, the teacher, following the procedure suggested by Wajnryb (1990), presented the (collaborative) output tasks in four stages including preparation, dictation, reconstruction, analysis and correction. During the first stage, the teacher started the class with a warm up, reviewing the necessary vocabulary and collocations to cope with the task. During the second stage, the students listened to a related text read by the teacher at normal speed and they were asked not to take any notes. During the third stage, they worked in small groups and the teacher encouraged them to reconstruct the text. Finally, in the last stage, they analyzed, compared, and corrected their texts. The teacher was also around to provide them with feedback, if needed.

The debate group was given the chance to be for or against in the debate mostly in groups of four individuals in which two students were acted as protagonist and two as antagonist. Following the procedure developed by el Majidi et al. (2018), the teacher presented each debate on a triple level. Initially, on the learner-content level, the students were asked to interact with information, arguments, and texts. Then, on the learner-instructor level, the teacher encouraged the students to debate on the topic and offered feedback on their performance. Finally, on the learner-learner level, the students debated the topic in their groups. Following the treatment phase, the researcher administered the Engagement in Writing Inventory to see whether dictogloss and debating could increase learner engagement in writing tasks.

Data Analysis

To analyze the data, as for the first objective of the study regarding the factors shaping L2 learner engagement in writing tasks, the researcher opted for a "theme-based procedure" (Dörnyei, 2007) so as to categorize the responses obtained from the interviewees and for concurrent think-aloud protocols. The inter-rater agreement and inter-rater reliability for coded transcripts were also taken care of. It is worth mentioning that the inter-coder agreement requires that the two coders reconcile through discussion (Garrison et al., 2006) and the inter-coder reliability requires that the two coders choose the same code for the same unit of text (Krippendorff, 2004). As for the construct validity of the related inventory, the internal consistency of the inventory, along with its sub-constructs, was measured by Cronbach's Alpha coefficients. The construct validity of the inventory was initially examined through Factor Analysis. Thereafter, goodness-of-fit indices determined the validity of the measurement model (Kline, 2011). Regarding the third objective of the study to examine whether dictogloss and debating instructions could increase the learner engagement in writing tasks, One-way ANCOVA was run.

Results
Results Emerged from the Interviews and Think-aloud Protocols

As for the first research question of the study regarding the main factors that shape learner engagement in writing tasks for Iranian EFL learners from the perspectives of university teachers, the researcher, having analyzed the results obtained from the interviews and think-aloud, categorized the most salient themes and commonalities. Some of the statements made by the

teachers are reported in Appendix A. To this end, to assure the inter-coder reliability, having coded the data, the researcher provided the second person who was one of his colleagues with the data to code. Thereafter, the second person coded the responses by eliciting the commonalities and he also formulated rather similar findings with minor differences. Following the guidelines proposed by Campbell et al. (2013), the researcher divided the number of coding agreements by the number of agreements and disagreements combined and he achieved 67 percent inter-rater reliability. There were 48 common themes that at least one of the coders invoked a code and of these, there were 33 cases that both of the two coders had invoked the code. Therefore, the level of inter-coder reliability was 68 percent (33/48 = .68). However, after negotiating discrepancies, the study reached 84 percent inter-coder reliability (28/33 = .84). Therefore, following the coding reliability and agreement, the number of common themes reduced to 28 codes as follows: *Focus, time, motivation, effort, interest, family support, enjoyment, challenging tasks, attention, teacher help, writing development, persistence, willingness to interact, life problems, problem-solving, anxiety, context, grammar, mental loading, friendship classmates, generating ideas, energy, fluency, project-based tasks, being connected, distress, task difficulty level, and punctuation.*

Actually, the common codes delineate the scope of engagement entailing different contextual and situational factors. Factors such as attention, focus, motivation, willingness to interact, and project-based tasks show that engagement would be of particular interest to those researchers who follow the predominant line of thinking in SLA such as sociocultural theory, constructivism, and cognitive-interactionist approaches. Although there are different perspectives on the definitions and conceptual frameworks of engagement, some factors are consistent across definitions and frameworks such as active participation, interest, and attention (see also Reschly & Christenson, 2012). Moreover, the indicators of learner engagement in writing tasks stress the affective factors that have already been regarded as the less visible dimensions of engagement by some scholars (Zhang, 2020). Finally, engagement is linked to positive behaviors such as effort, persistence, and energy that can elevate the level of engagement while accomplishing a writing task.

Psychometric Properties of the Inventory

Firstly, to determine the internal consistency of the inventory, Cronbach's Alpha estimated the reliability of the whole items, including 23 items, as 0.80. Moreover, the reliability of each of the four underlying factors was also examined as follows: Factor One: 0.86, Factor Two: 0.82, Factor Three: 0.76, and Factor Four: 0.74. Then, to measure the construct validity of the inventory, first of all, the Kaiser-Meyer-Olkin Measure was checked and since it was .66 so that it was acceptable. Moreover, the Barlett's Test of Sphericity value was also significant ($p = .0005 < .05$) which was acceptable; therefore, factor analysis was appropriate. During the final piloting of the study, the inventory, containing 28 items, was administered to 139 students.

Table 1
The Results of Principal Component Analysis

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.59	27.10	27.10	7.59	27.10	27.10
2	4.99	17.82	44.93	4.99	17.82	44.93
3	2.52	9.03	53.96	2.52	9.03	53.96
4	2.06	7.36	61.32	2.06	7.36	61.32
5	1.60	5.73	67.06	1.60	5.73	67.06
6	1.49	5.33	72.40	1.49	5.33	72.40
7	1.14	4.07	76.47	1.14	4.07	76.47
8	.97	3.48	79.95			
9	.84	3.00	82.95			
10	.74	2.67	85.63			
11	.56	2.01	87.64			
12	.48	1.71	89.35			
13	.45	1.61	90.97			
14	.38	1.38	92.35			
15	.34	1.24	93.60			
16	.30	1.07	94.67			
17	.24	.88	95.55			
18	.22	.81	96.36			
19	.20	.73	97.10			
20	.17	.62	97.73			
21	.14	.52	98.25			
22	.13	.46	98.72			
23	.11	.40	99.12			
24	.08	.30	99.42			
25	.07	.26	99.68			
26	.05	.19	99.87			
27	.02	.07	99.95			
28	.01	.04	100.00			

Extraction Method: Principal Component Analysis.

As illustrated in Table 1, seven factors were extracted from principal component analysis which had eigenvalues more than 1.0 and accounted for 76.47% of the variance. Items *12* and *27* were removed from the inventory since their loadings were less than 0.30 on any factor. Moreover, items *14* had the problem of multicollinearity, or high loadings (r > 0.90). For this reason, it was also excluded from the inventory so that the number of items was reduced to 25. Thereafter, the researcher opted for the Scree test to discover the number of factors for rotation. The Scree test represented a four-factor solution as a more parsimonious grouping of the items. Following this, the factor rotation was run to represent the underlying factor structure.

Table 2
The Components of Engagement in Writing Inventory

	Component			
	1	2	3	4
item5	.83			
item20	.79			
item10	.69			
item3	.63			
item17	.56			
item12	.47			
item14		.82		
item16		.76		
item18		.71		
item9		.64		
item7		.49		
item21		.41		
item23			.76	
item11			.72	
item2			.66	
item8			.62	
item15			.58	
item22			.51	
item1			.41	
item13				.82
item6				.74
item4				.73
item24				.67
item19				.48
item25				.47

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

As displayed in Table 2, the first factor included 6 items, the second factor included 6 items, the third factor included 7 items, and the fourth factor included 6 items. After factor rotation, the whole items consisted of 25 items. As the final step of construct validation process, the results of Amos 20 displayed a good fit to the data. Some modifications were carried out on the model because some measurement models did not indicate adequacy to the data (see Figure 1). Altogether, two items were removed including one item from factor one and one item from factor three because of low loadings. Indeed, after modifications were made, the goodness-of-fit of the model enhanced significantly. v2/df was 2.35, less than the cutoff point of 3; RMSEA was .071, less than .08; and GFI, CFI, and TLI were .91, .92, and .91, respectively, which were above the suggested cutoff point of .90 (Tseng & Schmitt, 2008).

Figure 1
The Results of SEM (Behavioral, Emotional, Cognitive and Social Factors)
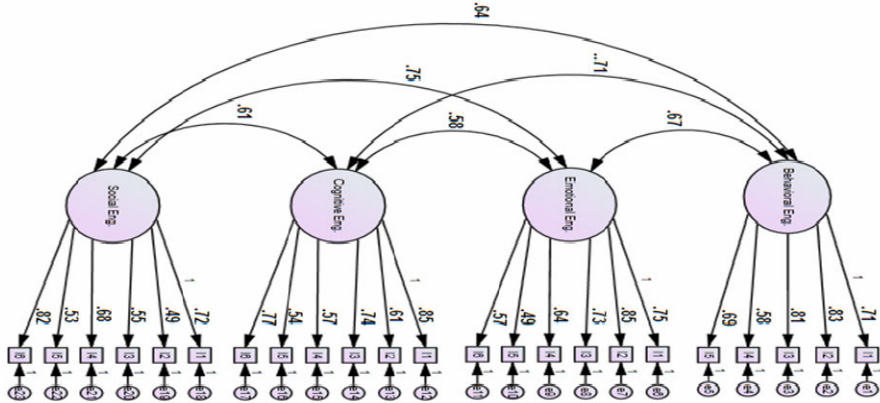
As shown in Figure 1, the association between the factors and the items was satisfactory since it was more than .30 and less than .90. As for the association for factors, the emotional and social factors had the higher correlation of .73, and the behavioral and cognitive factors had the higher correlation of .71. Therefore, each pair of these four factors was more dependent on each other. Consequently, the final inventory comprised four factors and 23 items. Pondering on the content of the items, the researcher named these new factors as follows: Factor one: Behavioral Engagement, Factor two: Emotional Engagement, Factor three: Cognitive Engagement, and Factor Four: Social Engagement (see Appendix B). The sub-constructs encompassing the validated scale could provide a comprehensive portrait of the multidimensional nature of learner engagement in writing tasks in L2 settings. Actually, engagement can be regarded as a meta-construct in L2 development, taking behavioral, emotional, cognitive, and social factors into account, and because of its multiple dimensions, Ellis (2019) refers to engagement as "the major force of learning" (p. 480). Since the number of validated instruments for measuring student engagement is very few (Hofkens & Ruzek, 2019), the inventory designed and validated in this study can be used as an instrument for evaluating learner engagement in writing tasks in further research.

Task-Based (collaborative) Output Activities and Engagement in Writing

As for the third objective of the study regarding whether dictogloss and debating could increase learner engagement in writing tasks, the researcher ran One-way ANCOVA. To meet the requirements, initially, the general distribution of scores for both groups was checked. The relationship was clearly linear so there was no violation in the assumption of the linear relationship. Moreover, the results of tests of between-subjects effects indicated that there was not violation of the assumption of homogeneity of regression slopes.

Table 3
Means and Standard Deviation of Variables

	group	N	Mean	Std. Deviation
pre-test scores	dictogloss group	16	61.18	10.65
	debate group	15	58.86	5.02
post-test scores	dictogloss group	16	72.62	9.99
	debate group	15	79.20	9.68

As shown in Table 3, prior to the treatment phase, the mean score of the dictogloss group was 61.18 with the standard deviation of 10.65 and the mean score of the debate group was 58.86 with the standard deviation of 5.02. However, following the treatment phase, the mean score of the dictogloss group reached 72.62 with the standard deviation of 9.99 and the mean score of the debate group reached 79.20 with the standard deviation of 9.68. Indeed, the results indicated that both types of task-based (collaborative) instructions could elevate the level of students' engagement in writing tasks.

Table 4
ANCOVA Test Results

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1871.32a	2	935.66	20.54	.00	.59
Intercept	323.28	1	323.28	7.09	.01	.20
pre	1536.64	1	1536.64	33.73	.00	.54
group	558.77	1	558.77	12.26	.00	.30
Error	1275.51	28	45.55			
Total	181292.00	31				
Corrected Total	3146.83	30				

a. R Squared = .595 (Adjusted R Squared = .566)

However, as shown in Table 4, the results obtained from One-way ANCOVA confirmed that the two groups were significantly different in terms of their scores on the engagement in writing tasks [F (1, 28) =12.26, p = .00, partial eta squared = .30]. The debating instruction could increase the students' engagement in writing tasks more than the dictogloss and the value of effect size was .30 which was large, according to Cohen's (1988) guidelines. Although both dictogloss and debating are regarded as task-based (collaborative) output activities that could help students enhance their writing ability, the results revealed that the debating instruction could elevate the level of involvement because of the nature of the discussion, and engaged students can develop further and faster (Egbert, 2020). Therefore, debate as an instructional tool can provide advantages for students to increase their engagement and bolster their performance in writing tasks.

Discussion

The current study demonstrated that different factors contribute to shaping L2 learner engagement in writing which were categorized into 28 factors based on the responses emerged from EFL university teachers and students. Likewise, the underlying constructs of Engagement in Writing Inventory represented different dimensions for engagement entailing

behavioral, emotional, cognitive, and social engagement. Finally, the results of One-way ANCOVA confirmed that task-based (collaborative) output activities could boost the learners' engagement in writing tasks.

As of the items comprising engagement in writing factors, items loadings on factor one, including five items, deal with the time spent by the learners to do the task, their active participation in doing the task, avoiding whatever drives them into distractions, the amount of energy they channel into the writing tasks, and the amount of effort devoted to the task. Therefore, the researcher came up with behavioral engagement as the label for factor one. Items loadings on factor two, entailing 6 items, are mainly concerned with the feelings and senses of the learners while doing writing tasks, among which are their enjoyment, interest, willingness to interact with other students, gaining satisfaction from their writing performance, suffering from bad stress, or distress, and showing frustration over fruitless attempt. Therefore, the researcher decided on the name emotional engagement for factor two.

Items loadings on factor three, consisting of 6 items, mainly cover the challenges facing learners in carrying out the writing tasks, ability to cope with demanding tasks if they become deeply involved in writing, thinking hard and carefully while completing the task, paying close attention to aspect of writing proficiency in terms of accuracy, fluency and complexity, becoming absorbed in their writings, and remaining focused on the writing task. Altogether, the researcher came up with cognitive engagement as the label for factor three. Finally, the contents of the items loadings on factor four, consisting of 6 items, mainly include external factors contributing to the engagement entailing family support, peer encouragement, the quality of teacher feedback, classroom atmosphere, the communicative intent, and project-based works. Thus, the researcher decided on the name social engagement for factor four.

Considering the first objective of the study, the results of the coding reliability and agreement supported the content validity of commonalities emerged from the interviews and concurrent think-aloud protocols. The findings of the study are aligned with the previous studies on the role of common themes and codes such as the work by Appleton et al. (2008) who categorized 16 common themes for engagement such as time on task, homework completion, participation, self-regulation, and belonging to groups. Likewise, the study conducted by Aubrey et al. (2020) revealed a variety of learner-level and task-level factors that are germane to learners' engagement and disengagement in tasks. The present study also identified factors related to disengagement such as anxiety and distress. These factors are mostly pertinent to emotional engagement and the replacement of negative emotions by positive emotions in the classroom would lead a disengaged student to a progression to engaged student. Higher engagement with the task would make a demotivated student remotivated. The obtained results are also in line with another contemporary research work undertaken by Mercer and Dörnyei (2020) who equated engagement in a learning task to active participation, focused attention, and involvement.

As of the second objective of the study concerning the construct validity of the related inventory, the results of the measurement model confirmed a four-factor structure for engagement which is in line with the

contemporary research work undertaken by Pekrun and Linnenbrink-Garcia (2012) who mainly came up with behavioral, cognitive, emotional, and social constructs for engagement. The results of the study corroborate the related literature in that the multidimensional nature of engagement makes it a unique construct with the three dimensions of behavioral, cognitive, and emotional engagement (e.g., Appleton et al., 2008; Fredricks et al., 2004). To be more specific, the first existing factor of engagement in writing tasks is behavioral engagement in this study which is in line with the finding of Finn and Rock (1997) who found behavioral engagement as an important component of academic success. The second existing factor is emotional engagement which has been considered as a key element affecting degree of willingness to do task and the learners' sense of enjoyment and frustration (Hamedi et al., 2020). The third factor is cognitive engagement which put emphasis on memory processes and attention (Pekrun & Linnenbrink-Garcia, 2012). And, the fourth existing factor is social engagement which is aligned with the finding of Philp & Duchesne (2016) who found interactions and collaborations determining in a task-based language classroom.

Finally, taking the third objective of the study into account, the obtained results revealed that EFL learners experienced increased engagement in writing through output-based (collaborative) tasks which is in agreement with the study carried out by Shernoff et al. (2003) who concluded that task-based group work instruction increases students' learning engagement. The results of the study are consistent with the study undertaken by Yang (2008) who declared that the interplay between speaking activities and writing tasks scaffolds writing development. The findings of the study confirmed that group work and panel discussion can establish engagement for the reason that these types of activities could trigger students' attention and active participation, foster positive emotions, and maintain the engagement, therefore; engagement to a large extent is similar to working within students' zone of proximal development to guarantee that engagement is initially established and then maintained (Modarresi & Alavi, 2014; Rogoff, 1990).

Conclusion

The findings of this study make a strong case for addressing the issue of engagement in writing and embracing the future perspective of EFL learners' engagement factors: their active participation, focused attention, emotions, and interactions. Indeed, the attention devoted to the students' engagement in their second language learning is of great value since students can be actively engaged on writing tasks provided that the students could incorporate their behavioral, emotional, cognitive, and social engagement into the writing tasks. The present study reinforces the conclusion that writing tasks are highly challenging, requiring higher mental loads; however, the amalgamation of speaking activities with writing tasks can make such challenges interesting and exciting for the students so that they would engage more in the tasks if they are equipped with task-based (collaborative) output instructions. Indeed, it seems that higher engagement with the task is related to higher-order thinking processes that would enable students to think creatively. In this regard, courses such as panel discussion could offer rich interactions for the learners to reflect on and revise their L2 output.

The study presents a number of implications for EFL learners and teachers in the second language environment. L2 learners are suggested to benefit from their behavioral and cognitive abilities by participating actively in the class to expand their mental capacity with focus on problem-solving techniques and delve into the learning tasks through deep thinking. Students should notice that positive emotional factors could foster their perseverance and increase their motivational intensity since cognition without emotion would not lead to successful progress. L2 teachers are recommended to provide the students with activities that are derived from new findings in the field of SLA. Indeed, classroom teachers could act as instructional scaffolding, helping students to engage fully in the tasks while diagnosing their disengagement factors.

Although the present study offers some interesting insights, it has a number of limitations along with some recommendations for future research. First, care should be taken in terms of external generalizability of the findings since the sample is not representative of all English-major students at university level. Second, due to the limited number of students available, the study included no control group in the experiment. Indeed, according to Mackey and Gass (2016), whereas the use of a control group is generally recommended, in some circumstances, the inclusion of a control group might not be possible for practical reasons. Finally, as of the relationship between output-based (collaborative) instructions and learner engagement, a fruitful area for further research can examine the extent to which these variables can contribute to the development of writing proficiency in terms of accuracy, fluency and complexity or the extent to which learner engagement with writing proficiency is related to the brain waves from a neuro-linguistic perspective so that now the door is open for engaged researchers to carry out further research into the role of engagement in the Iranian context in order to construct a comprehensive picture of engagement in reference to learning a new language.

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Appendix A
Sample Excerpts Emerged from the Interviews

Participants	Excerpts	Codes
Interviewee A	Those who find themselves involved in doing the writing tasks exert much more effort to accomplish the tasks.	Effort
Interviewee B	Students who are willing to interact with the teacher inside and outside the classroom use language more effectively.	willing to interact
Interviewee C	To me, context gives life to learning so that classroom environment can increase students' motivation in doing the writing tasks.	context, friendship classmates
Interviewee D	Some students are perfectionist. They like to produce flawless writings so they spend considerable time to fulfil a task.	time, writing development
Interviewee E	I think that motivation is a central factor in language learning and motivated students practice more.	Motivation
Interviewee F	Actually, writing tasks need more concentration and students who are focused are able to solve difficult writing problems.	focus, problem-solving
Interviewee G	In my opinion, writing is a matter of software first of all and students who immerse themselves in the task can produce creative writings.	mental loading, generating ideas
Interviewee H	Meanwhile, teachers have a significant role in increasing students' interest; supportive and knowledgeable teachers capture students' attention.	interest, teacher help, attention

Appendix B
Engagement in Writing Inventory

Behavioral Engagement
1) I spend enough time to do the task.
2) I can cope with the distractions.
3) I put all my energies into the task.
4) I do my best to create an excellent writing.
5) I participate actively in completing the task.

Emotional Engagement
1) I enjoy writing.
2) I am willing to interact with my peers.
3) I can write without feeling distressed.
4) I am interested in creative writing.
5) I get inner satisfaction from my writings.
6) I rarely feel frustrated with my performance.

Cognitive Engagement
1) I challenge to solve the writing problems.
2) I can complete difficult tasks if I get into them.
3) I think hard and critically while writing.
4) I find myself absorbed in doing the task.
5) I pay attention to all aspects of writing.
6) I can stay focused.

Social Engagement
1) My family is supportive.
2) My classmates are helpful.
3) The teacher's feedback is informative.
4) The classroom context is motivating.
5) Writing connects me to the world.
6) I think I do well in project-based tasks