Research Article

Scrutinizing the Utility of Collaborative Tasks for Improving Male and Female EFL Learners' Flow Experiences

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Abstract
The present study strived to determine the degree to which collaborative tasks and EFL learners' gender affected their flow experiences. To this end, first, the researchers selected 56 intermediate-level EFL learners in two intact classrooms at a private language institute in Urmia (Iran) as the participants. Second, they randomly assigned the classes to an experimental group and a control group. Third, they used a flow state questionnaire to determine the participants' flow experiences prior to the onset of the study. Fourth, they provided the experimental group with collaborative language learning treatment during 12 sessions. Nonetheless, they did not give this treatment to the control group. Finally, the researchers administered the flow state questionnaire to the groups anew to appraise the efficacy of collaborative tasks in augmenting the participants' flow experiences. The results indicated that the above-mentioned tasks had a positive effect on the EFL learners' flow state of mind. Furthermore, based on the results, it was revealed that the female learners' flow experiences were more positively affected by the collaborative tasks in comparison with the male learners' flow experiences. The obtained results may empower teacher educators, syllabus designers, and researchers to take account of the flow state of mind during the process of language acquisition.
Keywords: collaborative language learning, flow experiences, gender, language learning tasks, state of mind

Introduction

A close perusal of the pertinent research accentuates the fact that collaborative language learning has received considerable attention in various language learning contexts (e.g. Abahussain, 2020; Afzali & Astaraki, 2022; Alizaded Tabaqi, Yaqubi, & Abadikhah, 2019; Ishino, 2021; Johnson & Johnson, 1989; Payant & Kim, 2019; Reddington, 2018; Shirazifard, Abbasian, Mohseni, & Rashtchi, 2022; Su & Zou, 2020). This approach to language learning foregrounds the significance of group work in the context of the classroom and underscores the consequential role of shared language acquisition resources (Tsay & Brady, 2010). More specifically, in this mode of language learning, the members of student groups supervise their peers' language performance, provide them with constructive feedback, and evaluate their output in terms of linguistic accuracy and content-based truth value in order to improve the overall performance of their group (Johnson, 2012).

Forsythe (2014) averred that collaborative language learning characterizes an approach to language learning that exhorts the members of learner groups to develop a reciprocal relationship with their peers and to coordinate their efforts with their peers' endeavors in order to achieve the predetermined outcome of the pertinent tasks. Considering these characteristics, Flowers (2015) noted that the development of learner accountability is the sine qua non of this approach to language learning. That is, it prompts the learners to hold themselves accountable for their own and their group members' performance in the context of the classroom.

Payant and Kim (2019) capitalized on the above-mentioned features of collaborative language learning in order to differentiate it from the parallel approach which has been termed cooperative language learning. As they noted, while collaborative learning highlights the consequential roles of collective responsibility and unified endeavor to produce the non-linguistic outcome of the tasks, cooperative language learning emphasizes the desirability of individual responsibility and coordinated cooperation. Based on this difference, they accentuated the supremacy of collaborative language learning over cooperative language learning in the context of the classroom. As they concluded, in general, collaborative language learning has been operationalized by means of language learning tasks.

Lee and Bonk (2014) pointed out that collaborative language learning has been adopted as an approach which depends on diverse language learning tasks. As they explained, tasks can be appraised from two distinct vantage points including plan-based and process-based vantage points which are complementary in pragmatic terms. Lee and Bonk maintain that from the plan-based perspective, tasks refer to the work plans which provide the

members of the learners' groups with adequate information on their intents and propel them to take advantage of their current language resources to produce their predetermined outcomes with their peers' support and assistance. On the other hand, from a process-based perspective, a task characterizes the series of actions which are taken to achieve pre-specified outcomes. As they noted, the process of the language learning tasks might be congruous or incongruous with their plans owing to the fact that the collaboration among the language learners in the determined groups sways the actions that they take to achieve their pertinent outcomes.

Considering the above-mentioned issues, Niemeier (2017) argued that collaborative tasks constitute the activities which prompt the learners to take advantage of the target language in order to interact with their peers, provide them with specific information, identify the existing gaps among the group members' information pieces, and achieve a non-linguistic outcome. As he concluded, these tasks may affect various learner factors including the learners' flow experiences among others.

Sato (2017) pointed out that the flow state of mind has emerged from the field of positive psychology. As he explained, this field of psychology examines the determining factors in the amelioration of the people's individual and social well-being. Csikszentmihalyi (1975) developed the concept of flow in order to characterize the individuals' state of mind during their task performance. He explained that, these individuals accentuated the fact that immersion in the relevant tasks was analogous with the flow of water in the river. Moreover, they noted that they got carried away in the process of task performance and forgot about all of the intervening factors. Considering this issue, Csikszentmihalyi (1990) noted that flow delineates a state of mind in which the individuals devote their undivided attention to certain tasks and derive pleasure, energy, and satisfaction from their endeavors to perform the relevant tasks. Likewise, Oga-Baldwin and Nakata (2020) noted that in the flow state of mind the people's immersion in task performance emanates from their rewarding performances of the relevant tasks and empowers them to take the required actions to perform the pertinent tasks in disregard of the multitudinous internal (e.g. inhibitions) and external (e.g. time-related requirements) factors. Moreover, as they pointed out, the scrutiny and specification of the key components of flow might empower the educationalists to develop appropriate learning tasks for the betterment of the learners' education in the context of the classroom.

Nakamura and Csikszentmihályi (2001) made an endeavor to itemize the major components of this concept. They averred that six components including: enthralling nature of task, increased concentration, integration of cognizance and performance, sub-consciousness, sway over task performance, and change

in conceptualization of time constitute the flow experience of mind. As they explained, in order to help their learners to reach the flow state, first, the instructors should provide their learners with riveting tasks to attract their attention and to increase their concentration on performing the relevant tasks. Second, they need to prompt their learners to develop awareness of various aspects of the relevant tasks during their performance. Third, they have to apprise the learners of the consequential role of intense concentration on the relevant tasks and should exhort them to disregard all of the intervening factors in order to expedite the process of their subconscious task performance. Fourth, they should make the learners aware of the significance of their control over the different aspects of the relevant tasks. Finally, they have to determine the degree to which the learners' immersion in task performance has altered their awareness of time constraints. More specifically, the learners' cognizance of time-based restrictions accentuates their inability to reach the flow state and underlines the fact that the instructors' mentorship constitutes the sine qua non of the learners' flow experiences. Nakamura and Csikszentmihályi (2001) noted that, in these situations, the teachers have to capitalize on the momentousness of sub-consciousness and should adjure their learners to shrug off all of the contextual and internal factors to reach the flow state of mind.

Csikszentmihályi, Abuhamdeh and Nakamura (2005) probed deeper into the construct of flow and added three more components to the above-mentioned components. These components included constructive feedback, need-oriented negligence, and success-oriented ardor. They pointed out that, teachers should provide their learners with useful feedback on their success in achieving flow and need to spur them to turn a blind eye to their contextual needs. Furthermore, they have to arouse their learners' passion into the satisfactory performance of the relevant tasks in the context of the classroom. They concluded that, there is a need to specify the characteristics of the learning tasks which empower the learners to reach the flow state of mind.

Delle Fave, Massimini, and Bassi (2011) made an effort to particularize the underlying characteristics of the learning tasks which enable the learners to reach the flow state. As they explained, these features involved: goal-oriented nature of tasks, immediate evaluation, and equilibrium between task demands and learner competence. They pointed out that the optimal learning tasks need to encourage the learners to accomplish specific objectives in order to help the learners to increase their task performance concentration. Moreover, the pertinent tasks have to enable the learners to evaluate their performance in the context of the classroom to redefine their objectives and to make the requisite adjustments to their performance in order to reach the flow state of mind. Finally, the relevant tasks have to establish dynamic equilibrium between their

own demands and the learners' current skills and abilities. More specifically, the teachers have to ensure that the learners are not overwhelmed by the demands of their learning tasks. Delle Fave, Massimini, and Bassi (2011) concluded that there is a need to distinguish flow from similar concepts in the field of psychology.

Considering the above-mentioned issues regarding the flow state of mind, Oga-Baldwin (2019) drew a distinction between flow and the parallel state of mind which has been termed hyperfocus. As he pointed out, while flow delineates a state of mind which energizes the individuals and ameliorates their task performance, hyperfocus characterizes a state of mind that captivates their attention and sidetracks the performance of their normal everyday tasks. He averred that the detrimental impact of hyperfocus on everyday life tasks stems from the fact that a number of individuals have a proclivity to be fastidious and punctilious about the small details and are not able to focus on the main requirements of the pertinent tasks. As he concluded, the individuals' flow state of mind might be swayed by a number of their personal attributes including their gender in various academic settings.

Mulyadi (2018) pointed out that personal attributes encompass a number of variables such as age, gender, and native language background among others which are used to differentiate the groups of individuals from each other. As he noted, among various personal attributes, gender has captured the SLA researchers' attention more than the others. Milla and Gutierrez-Mangado (2019) defined the variable of gender in sociological and biological terms. They noted that, from a sociological perspective, gender constitutes a concept which links specific social roles to the individuals' masculinity or femininity. On the other hand, from a biological perspective, gender comprises the set of physiological characteristics which draw a distinction between male and female individuals. As they concluded, the biological gender constitutes a learner factor which is likely to affect the individuals' education including their acquisition of foreign languages in various academic settings.

A close scrutiny of the relevant research on the flow state of mind and the collaborative tasks in the field of Second Language Acquisition (SLA) underscores the fact that researchers have focused on specific lines of research to the exclusion of others. More specifically, a group of studies (e.g. Afzali & Izadpanah, 2021; Shahani, Chalak, & Heidari Tabrizi, 2021) have focused on the utility of flipped language instruction for promoting the learners' flow experiences. Moreover, certain studies (e.g. Ghasemi, Rezvani, & Namaziandost, 2021; Thissen, Menninghaus, & Schlotz, 2020; Van der Linden, Tops, & Bakker, 2021) have strived to determine the impact of the learners' flow experiences on their attitudes towards different language learning activities.

Furthermore, a number of studies (e.g. Aubrey, 2017; Baralt, Gurzynski-Weiss, & Kim, 2016) have made an endeavor to determine the degree to which the learners' flow experiences are influenced by their native culture. Finally, the majority of the studies on collaborative tasks (e.g. Khatib & Dehghankar, 2018; Kormos & Préfontaine 2017; Mohazabieh, Sahragard, Rassaei, & Zamanian, 2020; Naserpour, Zarei & Esfandiari, 2020; Révész, Michel & Gilabert, 2016; Salimi & Karami, 2019; Taheri & Abdollahi-Guilani, 2019) have examined the utility of these tasks for expediting the learners' acquisition of different aspects of the target language.

Notwithstanding, there are not any studies which have dealt with the impact of collaborative tasks and learners' gender on their flow experiences. Consequently, there is a need to deal with the relevant inadequacies of research. This study strived to address the above-mentioned issue in Iranian EFL context. That is, it attempted to answer the following research questions:

1. Do collaborative reading tasks have a significant effect on EFL learners' flow experiences?

2. Does EFL learners' gender mediate the effect of collaborative reading tasks on their flow experiences?

Method

Participants

Considering the aforementioned aims of the study, the researchers selected 56 intermediate –level language learners (i.e., 26 male & 30 female) in two intact classrooms at a private language institute in Urmia (Iran) as the participants according to their performances on a proficiency test. These learners ranged in age from 18 to 25 and were native speakers of Azeri, Persian or Kurdish. Furthermore, their language learning period at the relevant institute was in the range of two to three years.

Materials and Instruments
Proficiency Test

The researchers utilized Allan's (2004) Oxford Placement Test to select the participants. This test comprises 60 multiple-choice items in three parts including*:* grammar, vocabulary, and cloze test. Allan (2004) averred that this test was satisfactorily valid and reliable and constituted an appropriate instrument for evaluating the learners' language proficiency. Nonetheless, the researchers used Cronbach's alpha measure to examine the reliability of the test in Iranian EFL context. The obtained results highlighted the fact that the reliability index of the test (i.e. .83) was acceptable and it could be used in the present study.

Flow State Questionnaire

Based on the main intentions of the study, the researchers used Jackson and Marsh's (1996) Flow State Scale in order to examine the participants' flow experiences prior to the onset of the study and subsequent to the end of the treatment sessions (see Appendix A). This self-report questionnaire encompasses 36 five-point Likert-scale items. As Jackson and Marsh (1996) noted, the questionnaire had acceptable reliability and validity indices. Notwithstanding, the researchers of the present study took advantage of Cronbach's alpha measure in order to determine its reliability. On the basis of the results, the reliability index of the questionnaire was .89 and it could be employed in this study.

Procedure

In this study, first, the researchers utilized the aforementioned proficiency test to select 56 intermediate-level language learners including 26 male learners and 30 female learners in two intact classrooms of the pertinent institute as the participants. There were 28 language learners in each of these classrooms. Second, they randomly assigned these classes to an experimental group (i.e. collaborative group) and a control group. There were 12 male and 16 female learners in each of these groups. Second, they administered Jackson and Marsh's (1996) flow state questionnaire to both of the groups in order to examine their flow experiences prior to the beginning of the treatment sessions.

Third, they provided the experimental group and the control group with their pertinent treatment in 12 sessions in a one-month period (i.e. 3 sessions per week). More specifically, in the collaborative group, the researchers assigned the learners to 7 four-member groups and provided each of the groups with specific texts which contained a certain number of visually enhanced (i.e. boldfaced & italicized) collocations. Moreover, they asked the participants to use the target language to interact with their group members and to guess the meanings of the visually enhanced parts of the texts. The researchers supervised the performance of both of the groups and guided them through the process of each of the tasks. On the other hand, in the control group, the researchers provided each of the learners with the same visually-enhanced texts and asked them to guess the meanings of their enhanced collocations. Fourth, the researchers administered the relevant flow state questionnaire to the groups anew to specify the effect of the treatment on the participants' flow experiences. Finally, they used SPSS 20 to carry out the data analysis of the study.

Results

To analyze the data, the researchers used two-way ANCOVA instead of two independent samples t-tests since: a) they were not able to randomly assign the participants to the groups of the study and used intact classrooms, and b) the use of two independent samples t-tests could increase the chance of making a type 1 error (Mackey & Gass, 2016). As Pallant (2007) noted, two-way ANCOVA constitutes a parametric statistical test which enables the researchers to control the effect of covariates on the performances of the groups and to determine the degree to which two categorical variables influences the pertinent performances.

Additionally, to control the impact of the learners' pretest scores (i.e., covariate) on their posttest scores, the researchers used a pretest-treatment-posttest design. Moreover, they aimed to determine the degree to which the language instruction independent categorical variable (with collaborative-task-based instruction category & traditional language instruction category) and gender independent categorical variable (with male category & female category) influenced the participants' flow experiences (i.e., the dependent variable). Consequently, they selected the two-way ANCOVA test to perform the data analysis of the study.

Prior to the use of the two-way ANCOVA test, the researchers focused on its assumptions. In this regard, the researchers used Jackson and Marsh's (1996) flow state questionnaire which constituted one of the most reliable measures of flow experience in the pertinent field. Moreover, they examined the covariate (i.e., pretest scores) prior to the onset of the treatment sessions. That is, they provided the participants with the relevant questionnaire before the onset of the treatment. Finally, they focused only on the pretest scores and did not examine other covariates. Consequently, the researchers did not violate the measurement of covariate, reliability of the covariate, and correlations among covariates assumptions.

In addition, the scrutiny of the relationship between the dependent variable and the covariate showed that there was a linear relationship between these variables. Furthermore, the examination of the relationship between the treatment and the covariate showed that their interaction index (0.799) was large than .05. Therefore, the researchers did not violate the linearity and homogeneity of regression slopes assumptions.

Considering these results, the researchers used the two-way ANCOVA test to carry out the relevant analyses. Table 1 provides the pertinent descriptive statistics.

Table 1
Descriptive Statistics for the Performances of the Collaborative Group and the Control Group on the Flow Posttest

Gender	Groups	Mean	Std. Deviation	N
Male	Collaborative Group	140.58	11.357	12
	Control Group	125.25	3.388	12
Female	Collaborative	165.63	5.749	16
	Control	126.00	5.715	16

As shown in Table 1, the male and female learners in the experimental group had better performances on the posttest in comparison with the male and female learners in the control group. Nonetheless, the researchers had to check the results of the ANCOVA test. Prior to the perusal of the results of this test, the researchers needed to examine the homogeneity of variances. Table 2 shows the relevant results.

Table 2
Levene's Test of the Equality of Error Variances of the Performances of the Collaborative Group and the Control Group on the Flow Posttest

F	df1	df2	Sig.
4.310	3	52	.749

According to Table 2, the p-value in the results of the Levene's test (i.e., 0.749) was larger than the cut-off point .05. Therefore, the researchers did not violate the assumption of homogeneity of variances and could examine the results of the ANCOCA test. Table 3 provides the relevant results.

Table 3
Two-Way ANCOVA Test of the Performances of the Collaborative Group and the Control Group on the Flow Posttest

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	16913.365	4	4228.341	115.314	.000	.900
Intercept	465.763	1	465.763	12.702	.001	.199
Pretest	660.853	1	660.853	18.023	.000	.261
Gender	470.155	1	470.155	12.822	.001	.201
Groups	9953.546	1	9953.546	271.451	.000	.842
Gender * Groups	2242.308	1	2242.308	61.152	.000	.545
Error	1870.063	51	36.668			
Total	1120868.000	56				
Corrected Total	18783.429	55				

As shown in Table 3, the p-values of main effect of the gender variable (.001) and the main effect of the type of instruction (shown as *groups*) variable (.000) were less than .05. Likewise, the p-value of the interaction effect between the gender and type of instruction variables (.000) was less than .05. Consequently, the collaborative tasks and the learners' gender influenced their flow experiences. Moreover, these variables interacted with each other and influenced the male and female learners' flow experiences in different ways. Figure 1 shows these results.
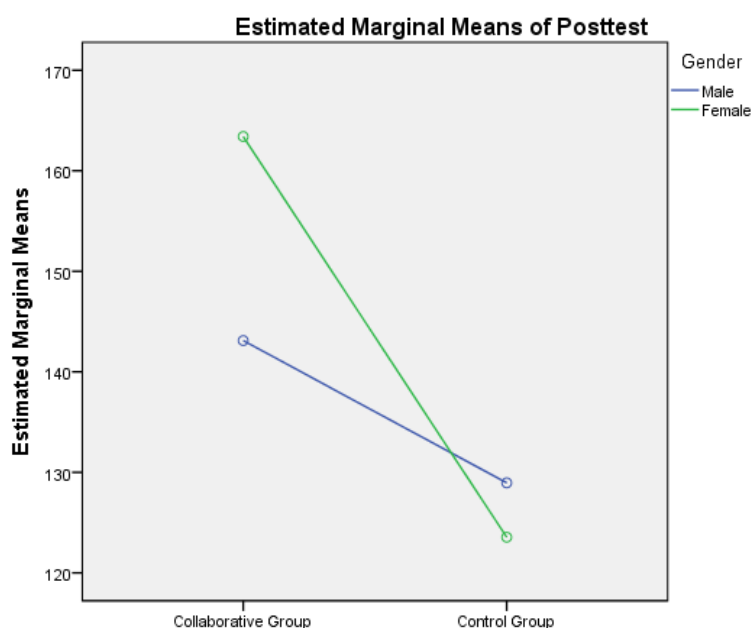
Estimated Marginal Means of Posttest

Figure 1: *Performances of the Male and Female EFL Learners in the Collaborative Group and the Control Group on the Flow Posttest*

As shown in Figure 1, the male and female learners in the collaborative outperformed the male and female learners in the control group on the flow posttest. Consequently, the collaborative type of instruction was a factor which had a positive main effect on the participants' flow experiences. Furthermore, in the collaborative group, the female learners outperformed the male learners on the flow posttest. Therefore, the participants' gender was the other variable that had a positive main impact on their flow experiences. Finally, the intersection of the lines in Figure 1 highlights the interaction effect between the collaborative type of instruction and the learners' gender (i.e. being a female learner) on the flow posttest. That is, the flow posttest

performance of the female learners in the collaborative group was better than the performances of the male learners in the collaborative group and both the male and female learners in the control group.

Discussion

The first research question of the present study made an endeavor to determine the degree to which collaborative tasks influenced the EFL learners' flow experiences in the context of the classroom. The obtained results highlighted the fact that the relevant tasks ameliorated these learners' flow experiences. In general, these results are in line with the results of the studies conducted by Salimi and Karami (2019), Taheri and Abdollahi-Guilani (2019), Mohazabieh, Sahragard, Rassaei, and Zamanian (2020), and Naserpour, Zarei and Esfandiari (2020) which have accentuated the utility of these tasks for expediting the language learners' acquisition of the various aspects of the target language.

Kormos and Préfontaine (2017) averred that collaborative language learning tasks empower the learners to develop and to extend their Zone of Proximal Development (ZPD). As they noted, this zone characterizes the differences between the learners' unsupported and supported language performance. They explained that the learners' collaboration and interaction with their peers expedite their creation of their ZPD and prompt them to establish successive ZPDs based on their acquired knowledge of the target language. Likewise, Oga-Baldwin and Nakata (2020) pointed out that the language learners' interaction and cooperation with their peers during the performance of the collaborative tasks have a positive effect on their flow experiences due to the fact that they intensify their focus on the objectives of the relevant tasks and enable them to disregard the intervening contextual factors. That is, the collaborative tasks have the potentiality to assist the learners in the development of flow-based ZPDs.

Moreover, Révész, Michel, and Gilabert (2016) stated that collaborative tasks are likely to have a beneficial effect on the language learners' personal characteristics (e.g. self-efficacy & motivation) since they empower the learners to cast aside their language learning inhibitions in the context of the classroom. Similarly, Oga-Baldwin (2019) pointed out that, in general, the learners' flow tends to soar when they lose their inhibitions and focus on the intents of their relevant tasks.

Considering the above-mentioned issues, it can be argued that in the present study collaborative language learning tasks ameliorated the EFL learners' flow experiences since they empowered them to establish and extend their flow-oriented ZPDs and enabled them to cast aside their

inhibitions in the context of the classroom.

The second research question made an attempt to determine the extent to which the EFL learners' gender mediated the impact of collaborative tasks on their flow experiences. The obtained results showed that the EFL learners' gender was a determining factor in their flow experiences. More specifically, based on the results, collaborative language learning had a more advantageous effect on the female learners' flow experiences compared to the male learners. In general, these results corroborate the results of the studies by Murphy (2010), and Gtowka (2014) which have shown that the above-mentioned tasks are more beneficial to the female learners' language achievement in comparison with the male learners.

Mulyadi (2018) pointed out that, in general, female learners are more attentive than the male learners in a variety of educational settings. He noted that, this kind of attentiveness empowers the female learners to process incoming information in a more efficient way compared to the male learners. As he concluded, the female learners' efficient information processing enables them to extend their attention and concentration spans and to direct their selective attention to the main objectives of their tasks. Likewise, Oga-Baldwin and Nakata (2020) argued that the language learners tend to achieve the flow state of mind when they have the ability to disregard the intervening variables and to pay selective attention to their relevant tasks.

Considering the above-mentioned discussions, it can be averred that in the present study, female leaners' flow experiences were more beneficially affected by the collaborative tasks in comparison with the male learners' flow experiences since female learners were more attentive in the context of the classroom, processed the relevant linguistic information of the tasks more efficiently than the male learners, and were more competent than the male learners to direct their selective attention to the objectives of the relevant tasks.

The results of the present study underscored the fact that collaborative language learning tasks significantly ameliorated intermediate-level EFL learners' flow experiences in the context of the classroom. Furthermore, based on the obtained results, these tasks had a more beneficial effect on the female learners' flow experiences in comparison with the male learners. It appears that a number of provisional conclusions can be drawn considering the above-mentioned results.

First, it can be averred that, there is a need to redress the current teacher education courses. This remold process should focus on the content of these courses and on the education of the teacher educators. More specifically, the scrutiny of the content of the teacher education courses highlights the fact that most of them do not provide the prospective teachers with sufficient

information on the consequential learner factors including the flow state of mind. Therefore, there is a need to redress these courses in a way that they comprise a certain module which empowers the teachers to deal with the major learner factors during the process of language acquisition.

Moreover, the current teacher education courses do not acquaint the pre-service and in-service teachers with the classifications of tasks and the underlying principles of collaborative language learning in a satisfactory way. That is, although the fundamental tenets of Communicative Language Teaching have gained momentum in these courses, the prospective teachers are not able to put them into practice in their classes. Consequently, these courses need to be overhauled to empower the teachers to bridge the gap between the theoretical discussions of collaborative language learning tasks and their practical use in the context of the classroom.

Furthermore, the perusal of the background of most of the teacher educators shows that they are experienced teachers who have obtained numerous teacher education certificates. Nonetheless, they may not be fully informed about the learner factors including the flow state of mind which may sway the process of language learning in the academic settings. Therefore, there is a need to reeducate the teacher educators in order to apprise them of the consequential role of learner factors (e.g. flow experiences) in the learners' acquisition of various aspects of the target language.

Second, it can be stated that, there is a need to amend the current instructional materials of EFL courses including the relevant textbooks. The examination of these textbooks indicates that they encompass scanty collaborative language learning tasks. Furthermore, the preponderance of the tasks in these textbooks does not provide the learners with the opportunity to achieve the flow state of mind during the process of task performance. Accordingly, there is a need to remold the relevant textbooks on the basis of the central tenets of collaborative language learning and the main contentions of flow state of mind.

Finally, it can be argued that, SLA researchers have to tackle the subject of learner factors including the flow state of mind in a systematic way in a comprehensive theory of SLA. The appraisal of the existing SLA theories shows that most of them pay scant attention to the postulations and principles of positive psychology, including the flow state of mind, which might ameliorate the language learners' acquisition of the various aspects of the target language. Therefore, the SLA researchers need to make an endeavor to develop more overarching and more all-embracing SLA theories in light of the contentions of positive psychology.

The present study had certain limitations and delimitations. First, it was not able to use random sampling and focused on intact classrooms. Second, it

took advantage of a relatively small sample. Moreover, the study delimited itself to the intermediate proficiency level and was conducted in a language institute setting. That is, it did not provide adequate information on the examined variables at the other proficiency levels and in the different academic settings including school and university settings.

The future studies need to deal with the above-mentioned limitations and delimitations of the present study. Furthermore, the pertinent studies have to make an attempt to specify the effect of collaborative language learning tasks on the other learner factors including learner beliefs, motivation, attitudes, and self-efficacy among others. Moreover, these studies should examine the degree to which other learner attributes such as native language background mediate the impact of collaborative language learning tasks on the EFL learners' flow experiences. Lastly, the future studies need to use qualitative and mixed-methods research designs in order to provide an in-depth understanding of the utility of collaborative language learning tasks for ameliorating the language learners' flow experiences.

Declaration of interest: none

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Biodata

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