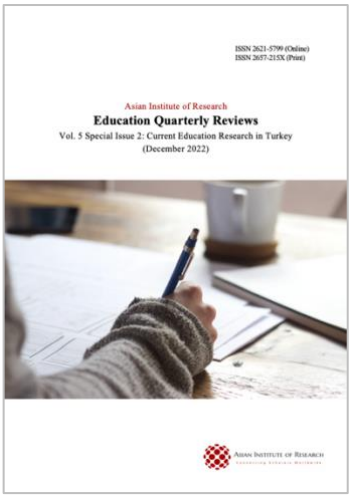

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An Investigation of Undergraduate L2 Writers' Motivational Writing Regulation Strategies in Relation to Collaborative Learning Beliefs

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Abstract
The concept of motivational regulation has always been on the agenda of researchers; however, the role of motivational regulation has received relatively little attention in terms of writing skills. Hence, the present study aims to investigate the potential correlations between motivational writing regulation strategies concerning collaborative writing beliefs of undergraduate L2 writers. To this end, a total of 102 undergraduate L2 writers were surveyed. To collect the data, two research tools were used. The first one is *the Writing Strategies for Self-regulated Learning Questionnaire (WSSRLQ)* (Teng and Zhang 2016a). This questionnaire conceptualizes motivational writing regulation strategies in terms of cognitive, metacognitive, and social-behavioral factors. The second data collection tool employed in the present study was the *Collaborative Learning Beliefs Survey*, which was prepared based on Roskams (1999). According to the findings of the study, there is a correlation between self-regulated writing strategies and collaborative learning beliefs. Hence, it is suggested that EFL writing instructions focus on motivational regulation strategies and other aspects of self-regulated strategies to ensure effective L2 writing instruction.

Keywords: Writing Self-Efficacy, Collaborative Learning Beliefs, Undergraduate L2 Writers

1. Introduction

Self-regulated learning requires motivational regulation (MR). Zimmerman and Schunk (2008) define it as the purposeful alteration of students' excitement or motivational processing to achieve academic achievement. There is an increasing realization that the interplay of MR tactics with other aspects of self-regulated learning strategies ought to have a significant impact on student commitment, achievement, as well as other learning outcomes (Wolters et al. 2011). A previous study found that learners who used MR approaches were more likely to start, maintain, and improve their motivation or effort to complete a task (Wolters & Benzon, 2013).

Considering the complexity and challenges of writing, motivational control becomes crucial in the writing-learning process (Hayes, 2012). It has previously been stated that effective writers are expected to utilize a range of

motivational regulation strategies to experience pleasant sentiments, interests, and self-initiated ideas that lead to the attainment of several literary goals, such as improving writing abilities and essay quality (Boscolo & Hidi, 2007). According to the experts, MR demonstrates how pupils can overcome barriers and maintain or boost their enthusiasm for learning (Wolters & Mueller, 2010). As a result, the usage of other learning methods that have been proven to be directly related to learners' educational performance in writing in other language situations is impacted (Teng & Zhang, 2016). Despite this, little research has been conducted on the role of motivational regulation strategies in the L2 writing process. There is a paucity of research-based information on how MR strategies affect students' academic achievement while interacting with other aspects of self-regulation. This is particularly evident in EFL writing.

Collaborative writing, on the other hand, is a type of peer work that is frequently employed in language-learning settings by some academics. Over the last thirty years, collaborative writing has grown in popularity as a useful instructional activity in language learning contexts as part of the change from teacher-centered to student-centered instructional strategies (Bygate et al., 2013). Simultaneously, technological advancements have made collaborative writing more easily adopted in a variety of educational contexts (Li & Storch, 2017). While collaborative writing is acknowledged to be good for language learners, studies of collaborative writing provide varying outcomes in terms of how students perceive collaborative writing, their behaviors during the co-writing activities, and if language learning occurs during such settings. Furthermore, instructors' reluctance to employ collaborative writing activities is documented, which may be attributable to a lack of understanding of the potential advantages of collaborative writing for language learners. There are also practical considerations about implementing collaborative writing in foreign language classrooms, including difficulties in assessment (Storch, 2013), participants' proclivity to using their mother tongue (Riley, 2009), and unaddressed linguistic issues, which makes collaborative writing research in language classes extremely difficult (Kim & McDonough, 2008).

Even though collaborative writing has garnered a lot of attention from scholars, there have been very few studies on this issue. Given the aforementioned research gaps, the purpose of this study is to look into possible links between motivational writing control mechanisms and collaborative writing attitudes of undergraduate L2 writers.

2. Literature Review

2.1. Motivational Writing Regulation Strategies

Writing is a social mental activity in which writers are aware of the demands of their readers and are eager to put in the specific time and effort required to improve written drafts till they communicate effectively (Zimmerman & Risemberg, 1997). According to the preceding explanation, excellent writing necessitates not only pupils' metacognitive and cognitive participation, but also their motivational control in employing several methods to boost their attempts and perseverance in finishing writing tasks (Manchón et al., 2007). According to some research studies, higher-skilled EFL authors used more effective and comprehensive metacognitive and cognitive strategies including organizing, reviewing, and editing than their less-skilled peers (Zhang et al., 2016). Nevertheless, students' awareness of metacognitive and cognitive strategies is frequently insufficient to foster active involvement in writing assignments (Andrade & Evans, 2013). Many academics contend that for writers, writing activities are sometimes fundamentally tough since they strain various higher and lower-order psycholinguistic processing which exist within a constant motivational state (Troia et al., 2013). This indicates that good authors must be inspired to begin, continue, or increase their willingness to begin, offer work toward, or accomplish a certain activity or objective (Wolters, 2003).

The need for the use of MR strategies is especially highlighted in Turkey, where learning writing in English is commonly regarded as the most difficult job for many English language learners. This indicates that Turkish language learners must not only employ a variety of metacognitive and cognitive strategies to assist them to fulfill learning objectives, but they must also utilize certain ways to manage their negative emotions to continue their learning efforts. Zimmerman (2011) and Oxford (2013) claim that these active string arrangements of learning processes help learners perform better. Considering the paucity of research into MR strategies in the foreign language writing context, it is necessary to investigate how Turkish learners actively manage their motivation during the writing-learning process. The study of how motivational regulation tactics impact writing performance

is quite interesting. This is because self-regulated learning is a multidimensional, integrated concept that emphasizes the triadic interplay of motivational regulation, metacognitive strategies, and social contextual elements in the process of learning (Zimmerman & Schunk, 2008).

2.2. Collaborative Writing Beliefs

Collaborative writing offers a social environment for L2 learners' language learning by allowing them to exchange ideas, gather language materials, give collective scaffolding, and internalize the information that they co-create with peers (Thorne & Hellermann, 2015). Yet, while examining collaborative writing, researchers discovered that just assigning learners to engage with peers does not guarantee that they will write cooperatively (Storch, 2013). A lot of research studies have been conducted to analyze group dynamics, and most of them have indicated that students learn more from collaborative-oriented interaction contexts (Walls, 2018).

Several research studies on learners' perceptions of collaborative writing tasks in language classes have indicated that learners usually believe collaborative writing activities are helpful, with a variety of advantages. These include increasing consciousness and writing skills; enabling good written and verbal communication through a method of concept mapping, realigning linguistic features, getting instant feedback; as well as providing more chances to interact with other classmates, presumably reducing writing anxiety (Fernandez Dobao, 2020). While students have generally positive opinions of collaborative writing, they have voiced certain reservations about participation in collaborative writing activities. In a study, some learners prefer writing alone to collaborative writing since they believe the varying working pace and various perspectives about the assignment would lead to disagreements among group members. Others are hesitant to address their peers' mistakes because they feel insecure about their language abilities and are afraid of criticizing others (Fernandez Dobao & Blum, 2013).

Although previous research has shown that students' ability to collaborative learning and group relationships should shape their attitudes toward collaborative writing (Chen & Yu, 2019), it has also been suggested that ethnic attitudes may have a substantial impact on students' views regarding peer work. In a study, Roskams (1999) researched the opinions of college students regarding pair work and discovered that language learners had a strong collectivist drive as well as an accomplishment orientation towards peer collaboration, probably due to the emphasis on high academic success. Although learners loved working with their peers, both an accomplishment concern and a collectivism concern influenced their opinions. Due to their concern about receiving lesser grades, several students preferred being examined individually by the members of the group rather than together as a group (Roskams, 1999).

To recapitulate, previous research has shown that engaging in collaborative writing generates social circumstances and communicative settings for L2 learners to communicate in the target language, facilitating their L2 development. The current study intends to look at the possible links between motivational writing regulation strategies and collaborative writing beliefs among undergraduate L2 writers. It sought to answer the following research questions:

1. What are the self-reported motivational writing regulation strategies of undergraduate L2 writers?
2. What are the self-reported collaborative writing beliefs of undergraduate L2 writers?
3. Do undergraduate L2 writers differ in terms of their motivational writing regulation strategies and collaborative writing beliefs based on gender or grade level?
4. What are the correlations between undergraduate L2 writers' motivational writing regulation strategies and collaborative learning beliefs?

3. Methodology

3.1. The participants and Context

Within the scope of the study, the data was collected as the learners were already conducting two collaborative tasks. Hence, the use of a collaborative beliefs survey is highly relevant. The survey was conducted after the learners finished their collaborative writing projects.

The total number of participants is 105. All the participants are college-level English language and literature students. The number of female students is 77 (67.5%) while the number of male participants is 28 (24.6%). The number of first-grade students in the present study is 26 (22.8%), second-grade students are 61 (53.5%), and third-grade students is 12 (10.5%). The first-grade participants are taking two writing courses. The second and third-grade students have already taken two writing courses. The third-grade students are also taking the "Research Techniques" course, which includes academic writing.

3.2. Data Collection Tools

3.2.1. Writing Strategies for Self-Regulated Learning Questionnaire (WSSRLQ):

The first data collection tool was the Writing Strategies for Self-Regulated Learning Questionnaire (WSSRLQ), which was developed by (Teng & Zhang, 2017) in an attempt to analyze EFL learners' metacognitive, cognitive, and social behavior strategies within the context of learning to write. This tool is a 7-point Likert scale. The options range from 1 (Not at all true of me) to 7 (Very true of me). The main theoretical background of the WSSRLQ was the self-regulation theory proposed by (Zimmerman, 2011) in addition to L2 writing theories (Cumming, 2012). WSSRLQ aims to measure L2 writers' context-specific self-regulated L2 writing strategies. Teng and Zhang (2017) validated the internal and criterion-related validity of the tool with 512 participants.

WSSRLQ contains three broad dimensions, which are (1) cognitive strategies (measured with 8 items), (2) metacognitive strategies (measured with 9 items), (3) social behavioral strategies (measured with 7 items), and (4) motivation regulation strategies (measured with 17 items). Each category includes further sub-categories. For example, text processing and course memory are sub-dimensions of cognitive processes. Ideal planning and goal-oriented monitoring are examples of metacognitive methods. Finally, social behavioral strategies include peer learning and dealing with feedback. The reliability analysis indicated that the WSSRLQ has a Cronbach's alpha value of .903, indicating that the tool is highly reliable.

3.2.2. Collaborative Learning Beliefs Survey

The second instrument used in the present study was a Collaborative Learning Beliefs Survey, which was formed by Zhai (2021). In that study, Zhai (2021) developed this survey to measure the collaborative beliefs of learners in the context of collaborative writing. There are 16 items in the questionnaires. Some of the items were adopted from Roskams (1999). The survey consists of 16 Likert-type items. The survey includes three dimensions: (1) Students' ideas about the usefulness of collaborative learning, (2) the creation of peer relationships, and (3) the execution of collaboration via students' concerns and preferences when working cooperatively. Zhai (2021) measured the reliability level of this survey as .83. In the present study, Cronbach's alpha value of the survey was measured as .68, indicating a dependable level of reliability.

4. Findings

Table 1: Descriptive statistics about cognitive statistics

Variable	Items	N	M	SD	**Min**	**Max**
Text Processing (TP)	1. I check grammar mistakes while revising.	105	5.22	1.31	1	7
	2. I check spelling and punctuation while revising.	105	5.15	1.40	1	7
	3. I check the structure for logical coherence while revising.	105	5.08	1.28	2	7
	4. I check the cohesiveness or connection among sentences while revising.	105	5.34	1.24	1	7
	5. I check whether the topic and the content have been clearly expressed while revising.	105	5.22	1.07	1	7
Course memory	1. To remember, I write useful words and expressions taught in writing courses.	105	5.01	1.17	2	7

	2. To remember, I speak out useful words and expressions taught in writing courses	105	4.78	1.39	1	7
	3. To remember, I read my class notes and the course material over and over again	105	4.82	1.42	1	7

Table 1 presents the findings regarding cognitive strategies. The general mean score for the cognitive strategies was calculated as 5.08, which indicates that the participants agreed with the statements. To check the normality of the distribution, both skewness and kurtosis values were calculated, and the results indicated that for all the items these values range from 0.14 and 0.868, which indicates that the data is normally distributed. To be more particular, in terms of text processing strategies, we can see from the table that the participants check the cohesiveness or connection among sentences (M=5.34) and check the clarity of the content (M=5.22). In addition, the participants also reported that they check grammar mistakes (M=5.22), spelling as well as punctuation (M=5.15). Finally, the participants also reported that they check the structure for logical coherence (M=5.08). When it comes to course memory strategies, it can be seen that the participants write useful words and expressions that they have learned in writing courses (M=5.01). However, the participants do not seem to speak out useful words and expressions that they have learned in writing courses (M=4.78), nor do they seem to read their class notes and the course material over and over again (M=4.82).

Table 2: Descriptive statistics about metacognitive strategies

Variable	Items	N	**Mean**	SD	**Min**	**Max**
Idea planning	1 To assist me plan, I read similar articles.	105	4.86	1.40	1	7
	2 I utilize the internet to get relevant information to aid in my planning.	105	5.88	1.17	1	7
	3 I consider the key parts of a successful composition that I've learned to assist me plan.	105	5.25	1.16	2	7
Goal-oriented monitoring	1 When I am studying English writing, I make goals for myself to help guide my learning activities.	105	4.91	1.32	1	7
	2 I monitor my English learning progress to ensure that I meet my objective.	105	4.97	1.34	1	7
	3 In writing classes, I assess my understanding of the material.	105	4.86	1.24	2	7
	4 I keep track of my learning progress when authoring courses.	105	4.64	1.25	1	7
	5 When I'm writing, I tell myself to stay on track.	105	4.92	1.38	1	7
	6 I established a learning objective to better my writing.	105	4.95	1.34	1	7

Table 2 presents the findings regarding the metacognitive strategies. The general mean score for the metacognitive strategies was calculated as 5.04, which indicates that the participants agreed with the statements. To check the normality of the distribution, both skewness and kurtosis values were calculated, and the results indicated that for all the items these values range from 0.33 and 0.789, which indicates that the data is normally distributed. Table 2 also makes it clear that the participants can use the Internet to search for required information (M=5.88) and can consider the essential elements of an accurate composition (M=5.25). However, within the context of the idea planning dimension, the participants do not seem to take advantage of reading articles for their development (M=4.86). As for the goal orientation dimension in metacognitive strategies, the participants do not seem to benefit from them satisfactorily. In particular, the general mean score for the goal orientation dimension is 4.85. To be more particular, the participants do not seem to stick to their plans (M=4.95), nor do they seem to set up learning goals for their writing (M=4.92). Furthermore, the participants do not seem to evaluate their mastery of the content in writing courses (M=4.86) and they do not seem to monitor their learning process (M=4.64).

Table 3: Descriptive statistics about social behavioral strategies

Variable	Items	N	**Mean**	SD	**Min**	**Max**
Peer learning	1. In writing classes, I brainstorm with my classmates to assist me to write.	105	4.90	1.55		7
	2. I talk with my classmates or teachers to get new writing ideas.	105	4.39	1.72		7
	3. I collaborate with other students in writing classes.	105	3.94	1.81		7
Feedback handling	1. I am open to receiving critiques on my writing from my peers.	105	4.93	1.58		7
	2. I welcome instructor criticism of my writing.	105	5.64	1.41		7
	3. I aim to enhance my English writing depending on criticism from my classmates.	105	4.80	1.51		7
	4. I aim to enhance my English writing based on comments from professors.	105	5.57	1.41		7

Table 3 presents the findings regarding social behavioral strategies. The general mean score for the social behavioral strategies was calculated as 4.88, which indicates that the participants are undecided about whether they use social behavioral strategies. To check the normality of the distribution, both skewness and kurtosis values were calculated, and the results indicated that for all the items these values range from 0.23 and 1.101, which indicates that the data is normally distributed. The participants do not seem to brainstorm with their peers (M=4.90), discuss with their peers or teachers to generate more ideas (M=4.39), nor do they work with others in the writing process (M=3.94). Concerning feedback handling, it can be seen that the participants are eager to improve their English writing through teacher feedback (M=5.57). However, they do not seem to be open to peer feedback (M=4.93). They value teacher feedback (M=5.64) more than the feedback that they receive from their peers (M=4.89).

4.1. Findings about the Collaborative Beliefs

The second aim of the present study was to measure the collaborative learning beliefs of undergraduate L2 writers. The results are presented below.

Table 4: Students' beliefs about peer collaboration concerning the efficacy of collaboration

Items	N	**Mean**	SD	**Min**	**Max**	Skewness
1 Getting a good grade is more essential to me than developing a strong friendship with a classmate.	99	3,5556	1,27153	1	6	-,385
2 I believe that working with my classmates will help me improve my English.	98	4,4184	1,04461	1	6	-,637
3 If I believe my concept is superior, I disregard my partner's recommendations.	99	3,8687	1,10330	1	6	-,386
4 If I believe my proposal is superior, I attempt to persuade my partner.	99	4,0202	1,00995	1	6	-,526

Table 4 presents the findings regarding peer collaboration concerning the efficacy of collaboration. The general mean score for this variable was found 4.00, showing that the participants are undecided about the efficacy of peer feedback. A moderate number of the participants stated that their English would be improved through working with other classmates (M=4.4184). The participants do not foreground the idea of getting high marks in the face of having a good relationship with their peers (M=3.5556) and they do not seem to ignore their friends' suggestions (M=3.8687). What is more, most of the participants are not highly willing to persuade their peers when they think that their ideas are better (M=4.0202).

Table 5: Students' beliefs about students' perceptions of giving and receiving peer feedback

Items	N	**Mean**	SD	**Min**	**Max**	Skewness
1 I appreciate the notion of being evaluated by my partner.	99	3,9394	1,42727	1	6	-,751
2 Working with others will teach me more than working alone.	99	2,7778	1,43253	1	6	,422
3 Collaborating with others will result in a higher grade than working alone.	99	4,4343	1,03176	1	6	-,503
4 I believe that comments on my work from my peers are useful.	98	4,2653	1,07023	1	6	-1,170
5 I am not afraid of having my group member(s) criticize my work.	98	3,8265	1,20159	1	6	-,604

Table 5 presents the findings regarding students' views on giving and receiving peer feedback. As can be understood from the table, the participants do not seem to believe that working with others would lead to a better grade than working alone (M=4.4343) and value their peers' feedback (M=4.2653). The learners do not seem to value the idea of being assessed by their classmates (M=3.9393). They do not feel comfortable when they are criticized by their peers (M=3.8265). Finally, the participants do not agree that they learn more by working with others than by working alone (M=2.7778).

Table 6: Descriptive statistics about the preferences and concerns about the implementation of collaboration

Items	N	**Mean**	SD	**Min**	**Max**	Skewness
1 I am apprehensive about conflict when working with others.	98	4,2959	1,21172	1	6	-,875
2 When working with others, I'm concerned about the division of labor.	98	4,3673	1,08777	1	6	-1,368
3 I'm apprehensive about working at various speeds with others.	99	4,5960	1,15987	1	6	-,759
4 I dislike it when my group member(s) directly points out a flaw in my work (even if it is true).	99	4,1616	1,15800	1	6	-1,007
5 When working in a group, I tend to work harder than when working alone.	99	3,4848	1,26462	1	6	-,212
6 I would rather receive improvement suggestions from my teacher than from a group member (s)	99	4,1717	,99016	1	6	-,354

Table 6 presents the findings regarding the preferences and concerns about the implementation of collaboration. As we can understand from the table, they are concerned about the different working paces when working with others (M=4.5960) and the division of work when working with others (M=4.3673), and about disagreement when working with others (M=4.2959). Moreover, the participants do not like it being pointed out as their fault (M= 4,1616). They would also be more satisfied when they get feedback from their teachers (M=4.1717). In addition, the participants do not seem to value the role of collaborative work in writing (M=3.4848).

Table 7: Descriptive statistics about motivation regulation strategies

Variables	Mini	Max	Mean	Sd
Interest Enhancement	1,00	7,00	5.2046	1,41951
Performance Self-talk	1,00	7,00	4.8451	1,39662
Mastery Self-talk	1,00	7,00	5.8903	1,16377
Emotional Control	1,00	7,00	4.4211	1,41365
Environment Structuring	1,00	7,00	5.3551	1,16377
Total	1,00	7,00	4.9567	1,23591

Table 7 presents descriptive statistics about motivational regulation strategies. The total mean score for the motivational regulation strategies was 4.9567, which indicated that the participants do not agree with most of the items in this category. The mean score for interest enhancement is 5.2046. This shows that the participants barely agree that They seek ways to make writing learning more enjoyable (M=4.8190) or find fascinating themes to practice writing in English (M=4.8571). However, the participants seem to agree that they relate the writing assignment to a real-life occurrence (M=5.8762). As for performance self-talk, the overall mean score was 4.8451. This shows that Participants in the current study express that it is critical to practice writing in English to surpass their classmates (M=4.9709) or desire higher marks (M=4.9143). Concerning mastery of self-talk, the mean score is 5.8903, which indicates that the students persuade themselves to work hard (M=5.9044) and urge themselves to work hard to study as much as possible through writing courses (M=5.9233). When it comes to emotional control, the mean score was 4.4211. This shows that L2 writers may have a hard time regulating their emotional issues and maintaining their resilience. Finally, concerning environmental structuring, the mean score was 5.3551. This shows that the participants agree that they can regulate their environment as they are conducting the writing process.

Table 8: Correlation between writing self-regulation strategies and collaborative learning beliefs

	Cog	Metacog	Sociobeh	Motreg	Collabeff	Peer feedback	implementcol
Cog	1	,691**	,378**	,634**	-,176	-,155	-,105
Metacog		1	,465**	,866**	-,113	-,013	-,010
Sociobeh			1	,839**	-,058	,066	-,050
Motreg				1	-,097	,022	-,036
Collabeff					1	,505**	,566**
Peerfeedback						1	,411**
implementcol							1

*. Correlation is significant at the 0.01 level (2-tailed). Cog= cognitive strategies, metacog= metacognitive strategies, Sociobeh= social behavioral strategies, collabeff=efficacy of collaboration, Peerfeedback=perceptions of peer feedback, implementcol=implementation of collaboration

Table 8 presents the results concerning writing self-regulation strategies and collaborative learning beliefs. Significant positive correlations were found between the sub-dimensions of writing self-regulation strategies. For instance, the correlation between cognitive strategies and metacognitive strategies was significant ($r = .70$, $p < .01$), as cognitive strategies and socio-behavioral strategies ($r = .38$, $p < .01$). Similarly, the correlation between cognitive strategies and motivation regulation strategies was also significant ($r = .63$, $p < .01$). The internal relations between the sub-dimensions of collaborative learning were also significant. For example, the correlation between the efficacy of collaboration and beliefs about peer feedback was positive and strong ($r = .50$, $p < .01$), and the correlation between the efficacy of collaboration and implementation of collaboration were also positive and strong ($r = .49$, $p < .01$). However, no significant correlations were observed between and among the sub-dimensions of writing self-regulation strategies and collaborative learning beliefs.

5. Discussion

The main aim of the present study was to measure the L2 writers' motivational writing regulation strategies concerning collaborative learning beliefs. The main finding indicated that in terms of cognitive strategies, the participants have a relatively high level of cognitive strategies along with metacognitive strategies. These findings indicate that undergraduate L2 writers can check whether their compositions are coherent enough and whether their compositions contain grammar mistakes. Similarly, the participants were also found to have a relatively high level of metacognitive strategies, implying that they can use online sources effectively and have a good command of the essential components of a composition. Nevertheless, the participants do not read more academic articles, nor can they make use of goal orientation strategies. They also reported that they do not make efficient use of goal-

setting strategies. These findings indicate that L2 writers should be instructed on how to make plans, and how to set goals and work for them. L2 instructors should spend extra time and energy cultivating these strategies.

Concerning the social behavioral strategies, the study found that the participants do not make efficient use of them. For example, the participants do not work with their peers to generate ideas, nor do they discuss with their peers to find out more about the L2 writing process. What is more, the L2 writers in the present study do not seem to be willing to get peer feedback. Similarly, concerning the efficacy of collaboration, the participants reported that they are not highly efficient in improving their L2 writing with their peers. Such findings are important given that the impact of peer feedback on students, especially higher education students, has been stressed by some authors (Barnard et al., 2015; Yu & Lee, 2016; Yu & Hu, 2017). This shows that L2 writers need more instruction and guidance in goal-setting and social behavioral strategies in general.

Even though the students ranked high in terms of cognitive writing strategies such as course memory and text processing, they ranked rather low in terms of goal-oriented monitoring aspects of metacognitive strategies and both sub-dimensions of peer learning and feedback handling of social cognitive strategies in the current study. These findings are remarkable since they indicate that L2 undergraduate writers do not seem to benefit from metacognitive and social cognitive strategies. Given that motivational regulation strategies directly affect the learning process on condition that they are activated in tandem with all cognitive, metacognitive as well as social behavioral strategies (Wolters, 2003; Zimmerman, 2011). To be more particular, Teng and Zhang (2016) demonstrated that some strategies, namely *goal-setting, text-generating, feedback-handling, and idea-planning strategies*, which were found to be low in this research study, significantly affect L2 writers writing performance. This study found that undergraduate L2 writers do not have a high level of goal-oriented monitoring. This finding assumes importance given that L2 writing is viewed as a "deliberate, goal-directed attempt to make writing enjoyable, less challenging, and more effective" (Teng & Zhang, 2016, p. 7). In addition, recent publications show that SRL is highly important for L2 writers. Santangelo (2016), for example, found that L2 writers perform better when they depend on several SRL strategies. Similar results were also reported by Graham et al., (2018) and Schunk & Greene (2018). Similarly, Oxford (2013) suggests that "the cognitive and metacognitive strategies facilitate understanding, increase meaningful mental associations, and are the most useful strategies for long-term retention of information" (p. 30).

One of the significant findings of the present study was that the L2 writers do not tend to benefit from the social cognitive strategies, nor, more importantly, do they seem to take benefit of collaborative learning principles. This merits some speculation given that writing is a "… social cognitive process wherein writers must be aware of readers' expectations and must be willing to devote the personal time and effort necessary to revise text drafts until they communicate effectively" (Zimmerman & Risemberg, 1997, p. 76). A viable suggestion could be to promote collaborative writing as an instructional strategy, which has come to the fore over the last few years (Chen & Ren, 2022). The main theoretical background for collaborative writing is the sociocultural theory (Vygotsky, 1978) in addition to task-based language teaching and communicative language teaching. The reason why collaborative writing could be a feasible solution to promoting collaborative teaching is that collaborative writing requires learners to engage in purposeful interaction during the writing process (Storch, 2013).

The present study found that the participants do not accept the value of or do not seem to benefit from the merits of collaborative learning. Future research is needed on why undergraduate L2 writers in Turkey do not value collaborative learning. Researchers should also clarify the role of collaboration in the development of writing skills. To do this, project-based writing strategies could be employed.

Pedagogically speaking, working on motivational strategies for L2 writing so that potentially effective methodologies could be drawn based on the results. The results frequently indicate that L2 writing teachers are supposed to make research-based decisions (Zhang, 2016), which is possible through effective handling of the topic with research studies. Furthermore, Zhou and Hiver (2022) demonstrated that the utilization of SRL strategies for L2 writing contributes to student engagement in writing classes. Therefore, as was pointed out by Dao (2020), or Zhang et al. (2016), Providing strategies-based training would be a successful technique for increasing student engagement in L2 writing.

The present study assumes significance given that it indicated that L2 writers fail to make effective use of collaborative learning strategies. Hence, L2 teachers are expected to persuade their learners that working with more knowledgeable others is a beneficial practice, as a principle of socio-cultural learning theory (Vygotsky, 1978). This means that EFL teachers are expected to teach language learners how to make use of cognitive, metacognitive, or social-behavioral strategies to consolidate their writing skills so that they can handle challenges that may emerge in the learning process.

The present study offers some insights into the relationship between self-regulated writing self-efficacy and collaborative learning beliefs. However, there are some limitations to the present study. First, the study was limited to 102 undergraduate L2 writers. Future studies could consider increasing the number of participants. Second, the present study was based on quantitative means of data collection. Future studies could consider the collection of different means of data. Third, longitudinal studies could be designed to see the role of collaboration on the self-regulated self-efficacy of undergraduate L2 writers. One fine example of longitudinal studies that focus on writing strategy use is that of Sasaki et al. (2018), who analyzed the strategy-use patterns of 37 Japanese university students over 3.5 years. Their study provided highly valuable insights. Finally, in the present study, it was not possible to include L2 writers' writing performance in the evaluation. Future studies could consider the relations between and among collaborative learning beliefs, writing self-regulated efficacy, and writing performance to get a more holistic picture.

A significant suggestion for future research would be to include context-dependency as an important factor in strategies development and strategy implementation on the part of L2 writers given that according to researchers' strategy use can be affected by contextual factors such as L2 proficiency, motivation, or environmental issues (Forgas, Baumeister, & Tice, 2009). Hence, although there is a body of research that focuses on the contextual aspects of strategy use, more focused studies are needed in that regard.

All in all, now that the language learning strategies research is experiencing a new "paradigm shift" (Dörnyei & Ryan, 2015, p. 165), where they are more frequently viewed as process-based constructs as opposed to earlier conceptualization where they were seen as "learner attributes", it is timely and beneficial to include strategies-based investigations in language skills, the writing skill being of the primary skills drawing remarkably from strategy use (Sasaki et al., 2018).

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