Research Paper

Assisting Higher Education Learners to Acquire Self-Regulated Writing Strategies during COVID-19

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ABSTRACT

Background: The abrupt transition to virtual language learning environments due to the Covid-19 pandemic has brought considerable challenges to educational practices. In the context of foreign/second language learning and teaching, it has become more difficult to ensure that learners have the necessary engagement and motivation levels along with sufficient support and guidance. As educators and researchers report, the adversities in today's online learning environments need to be challenged.

Purposes: The study is meant to contribute to language learning and teaching practices by sharing the results of the implementation of a self-supporting tool, namely, Self-Monitoring Chart for Effective Writing Strategies. The chart has been developed by the researchers for an online academic English writing course at higher education level to assist learners their writing improvement and to become self-regulated learners while maintaining their engagement in their writing tasks.

Methodology/Approach: The study was designed as a qualitative case study and the opinions of the participants on their experiences of using the chart were elicited using semi-structured interviews. The participants were students at English Language Teaching departments of two state universities (N=48). The qualitative data gathered was analyzed using systematic content analysis.

Findings and Discussion: The results indicate that the learners greatly benefited from using the SMC. In particular, they reported to have become aware of SRL writing strategies, to have learned how to implement them, to be more engaged and more motivated in writing tasks. The implications are meant to contribute to online language learning and teaching contexts.

INTRODUCTION

Covid-19 brought about considerable challenges to different stakeholders in education; namely, learners, teachers and administrators at universities. The main challenges include technology and infrastructure-related impediments, issues due to lack of motivation and desirable attitudes, and also problems stemming from inadequate and/or inefficient online learning and teaching approaches (e.g., Alea et al., 2020; Amemado, 2020; Aristovnik, et.al. 2020; Chen et al., 2020; Crawford et al., 2020; Drane et. al., 2020; Dwivedi et al., 2020; Toquero, 2020). According to recent studies, the observable outcomes of this abrupt transition have been quite overwhelming on the side of the teachers (Donitsa-Schmidt & Ramot, 2020; Mishra et al., 2020). They have not only felt the need for curricular, administrative and infrastructural support to teach online, but they also have experienced important problems related to using effective online teaching methods and techniques, supporting learners with the necessary resources for online learning, monitoring their progress, and adapting themselves to this new environment (Donitsa-Schmidt & Ramot, 2020; Mishra et al. 2020). In addition to lack of social interaction, sense of belonging to the school environment, and the technological difficulties, learners have experienced difficulties in receiving timely feedback from their teachers (Adnan & Anwar, 2020; Chen et al., 2020; Drane et. al., 2020; Popa et al., 2020).

In the context of foreign/second language (F/SL) learning and teaching, recent studies indicate that the challenges during online learning have superadded (Chen et al., 2020; Popa et al., 2020). Virtual language learning environments make it more difficult to ensure that learners have the necessary engagement and motivation levels along with sufficient support and guidance (Chen et al., 2020; Mishra et al. 2020; Popa et al., 2020). Language learning is not composed of acquiring the gradual knowledge included in educational programs, but rather, it is mainly considered to be skill development, which requires higher levels of learner engagement and self-regulated learning (Hu &Kuh, 2003; Mazer, 2013). In such a skill-building process, learners need to be motivated and engaged by being actively involved in the materials, tasks and activities that are both challenging and motivating while receiving timely and sufficient feedback on their progress (Fredericks et al., 2004; Gellin, 2003; Hu &Kuh, 2003; Mazer, 2013).

As for improving foreign language writing skills throughout online education, which is considered as one of the most challenging skills for learners (McCutchen, 2011; Wang, 2014), the process has been even more challenging. Research illustrates that language learners try hard to write in an effective or 'satisfactory' manner as the nature of the writing itself is multi-dimensional and learners are required to meet specific standards belonging to structural, lexical, discourse, and task features (Hidi&Boscolo, 2006; MacArthur, 2014; Wang, 2014).

In higher education contexts, writing in foreign language plays a substantial role in learners' personal, academic, professional, and social development as writing experiences enable learners to improve their language production skills, develop critical thinking skills, learn to communicate their ideas in F/SL contexts effectively, and to improve their knowledge on the content areas (Bruning & Horn, 2000). Therefore, the adversities in today's online learning environments need to be challenged. One way to assist learners to continue improving their writing skills is to enable them to become self-regulated learners and assist them to maintain their engagement in their writing tasks in online education. Reporting learner engagement as a strong predictor for achievement and long-term success, research highlights the importance of increasing learner engagement both for higher academic achievement and for life-long learning and satisfaction for life (Appleton, et al., 2006; Trowler&Trowler, 2010). Within this context, we postulate that learner engagement levels could be elevated by introducing to and equipping learners with SRL strategies as "self-regulated learners have the necessary cognitive, behavioral, affective, and social features to become active, independent, and constructive learners." (Seker, 2016; p.601). In this respect, a self-monitoring chart for effective writing strategies (SMC) has been developed by the researchers and tailored for an online academic English writing course at higher education level in order to equip learners with self-regulated learning strategies (SRL) and assist them to be productively engaged. The aim of the study is to find out the impacts of the implementation of SMC on learners' reported use of SRL strategies in their writing tasks. The specific research questions sought are:

1. Do students report using SRL strategies in their writing assignments with the help of SMC?
2. Do students report higher levels of engagement in their writing tasks with the help of SMC?
3. What are the opinions of higher education ELT learners on the SMC?

REVIEW OF LITERATURE

Learner Engagement

Engagement is defined as "positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufelli et al, 2002, p.74). Engagement can manifest itself in persistent affective and cognitive state, high levels of energy activation and involvement for tasks, high levels of concentration, persistence, and resilience against challenges (Llyod, 2014; Truta et al., 2018). In the field of educational psychology, on the other hand, learner engagement broadly refers to active involvement in learning and is viewed from cognitive, psychological, social, and behavioral dimensions (Finn& Zimmer, 2012; Fredricks et al., 2011). When engaged, learners have been reported to spend more time and energy on learning tasks (Hu &Kuh, 2003; Kuh, 2009); feel higher levels of enjoyment and attachment (Pike &Kuh, 2005); have higher self-esteem and satisfaction (Lam et al., 2012); develop practical competence and establish relationships with the newly learned materials and their own personal and academic lives (Gellin, 2003; Pike & Kuh, 2005); exhibit increased performance and productivity (Krause & Coates, 2008); and obtain higher grades and achievement rates (Klem& Connell, 2004; Rumberger&Rotermund, 2012).

Considering engagement as the interaction between the learner and the learning context, Fredricks and McColskey (2012) distinguish between the concept of motivation and of engagement. While motivation is the underlying reason(s) for an action or an effort, engagement is the behavioral, emotional, and cognitive manifestations of motivation. In other words, motivation is perceived as a psychological state that determines the learner's desire to do a task, engagement is more related to the actual actions and/or efforts taken towards the task. A motivated learner is expected to 'want to learn' whereas an engaged learner 'exhibits the efforts to learn". At this stage, if learners are able to regulate their learning efforts, they are more likely to accomplish deeper learning (Fredrickset al., 2004), which creates an opportunity to implement self-regulated learning strategies that lead to deeper learning (Pintrich & DeGroot, 1990).

Self-Regulated Learning and Its Role in Foreign Language Learning

In its broader sense, self-regulated learning refers to demonstrating control over learning actions (Fredricks, et al., 2011). For Pintrich (2004), self-regulated learning process is "an active and constructive process through which learners establish objectives, monitor, regulate and control their cognition, motivation and behaviour guided by their goals and the contextual features of the learning environment' (p. 453). When executed effectively, the use of self-regulated learning strategies have been reported to enhance learner autonomy and increase achievement by enabling learners to become active agents of their learning (Andrade & Evans, 2012; Beishuizen & Steffens, 2011).

In the context of foreign language learning, self-regulated learners are found to exhibit higher performance in language skills (i.e., speaking, writing, reading, etc.) and higher language achievement rates (Andrade & Evans, 2012; Gunning & Oxford, 2014; Ma & Oxford, 2014).

Foreign language learning requires continuous engagement and persistence in learning. However, learners' engagement could be facilitated and their learning experiences could be enhanced by equipping them with SRL language learning strategies. When self-regulated learners are engaged in learning, they are likely to set effective learning goals, create optimum learning environments, maintain necessary psychological states, search and compile sources efficiently, manage their time effectively, seek support from or collaborate with others, implement and orchestrate necessary cognitive strategies for deeper learning while monitoring and evaluating their learning processes continuously.

METHOD

The study was designed as a qualitative case study, which is defined as 'a research methodology that provides tools for researchers to study complex phenomena within their contexts' (Baxter & Jack, 2008, p. 544). The opinions of the participant higher education learners on their experiences of using the developed tool were investigated using semi-structured interviews. The qualitative data gathered was analyzed following inductive content analysis method (Mason 2002).

The Development of the Self-Monitoring Chart

A chart for effective writing strategies has been developed in order to guide higher education learners by efficiently implementing SRL writing strategies autonomously while assisting them in their online academic writing tasks (Appendix B). The chart was developed in line with the cyclical model of SRL with the phases of forethought, performance, and reflection on performance (Zimmerman, 2000). These phases are represented as pre-writing, writing, and post-writing in SMC. Under each phase, learners are provided with cognitive, metacognitive, affective and socio-interactional SRL strategies that could be implemented to elevate their engagement and their performance in their writing tasks. For each phase, the steps to be completed are listed together with the actions that should be planned or taken at each phase during completing a writing task. In the chart;

Phases: The chart has three phases (i.e., pre-writing, writing, and post-writing) representing forethought, performance, and reflection on performance phases in the cyclical model of SRL;

Steps: They include the main steps to be taken under each phase and reflect cognitive, metacognitive, affective, and socio-interactional SRL strategy categories adapted for writing skill development (e.g., goal setting, organizing study environment, outlining, or editing);

Actions: They comprise cognitive, metacognitive, affective, and socio-interactional SRL strategies to implement under each step (e.g., gathering sufficient knowledge, activating previous knowledge, searching online sources, asking for assistance/feedback, exchanging ideas and sources, etc.).

Covering both lower-level and higher-level writing skills (Wilson, et al. 2016), the chart has a dual purpose: first, it aims to introduce SRL writing strategies by listing them in a systematic chronological order. The second purpose is to guide and enable learners to acquire and improve SRL repertoire and use, digital skills, and collaboration. Figure 1 shows the graphical representation of the SMC.
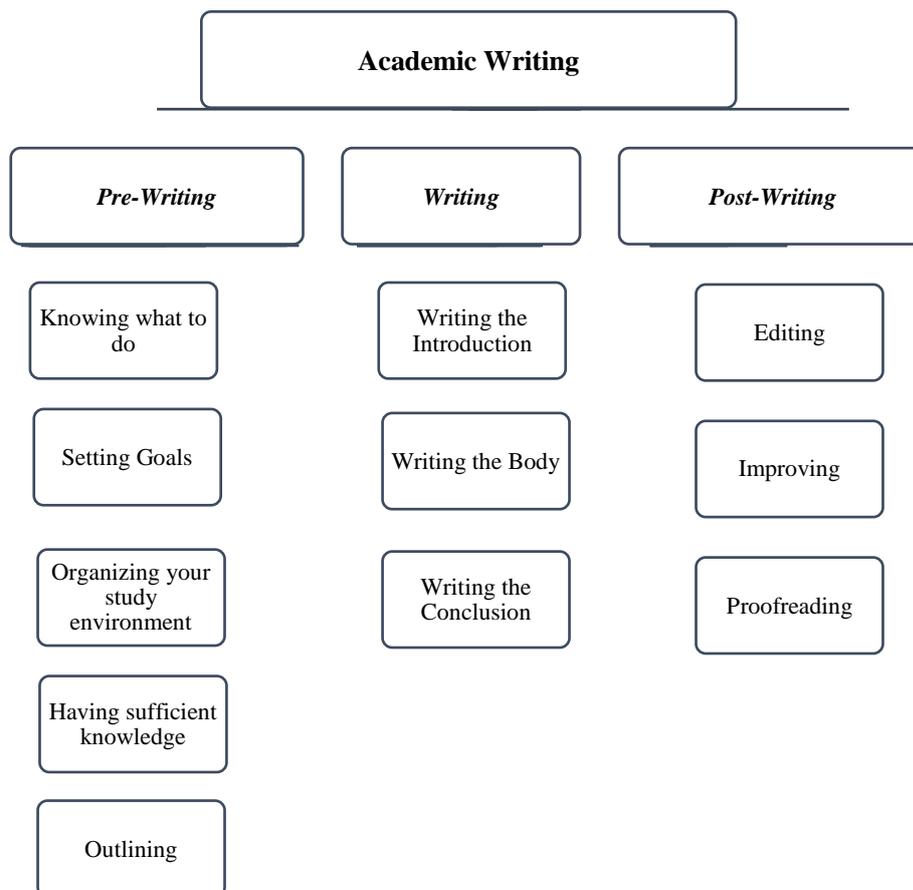

Figure 1. The Graphical Representation of Self-Monitoring Chart for Writing

Context and Participants

The participants were students at English Language Teaching (ELT) departments of two state universities in Turkey. The learners registered to 'Critical Reading and Writing' courses (N=148) were asked to participate on a voluntary basis. Among these, 48 of them agreed to participate in the online semi-structured interviews and signed consent forms. The ethical approval for this study was received by the Research Ethics Committee of one of the universities (Date and Number: 2020/14-6).

Table 1. Demographic information of the participants

	Gender		Age			
	Female	Male	17-19	20-22	23-25	26+
F	28	20	11	23	10	4
%	58.3	41.6	22.9	47.9	20.8	8.3
Std. Dev.	.455		.69213			

The majority of the participant learners are female, and their ages varied between 20 and 22 (58.3 % and 47.9%, respectively). The researchers were their course instructors. The course was delivered by the researchers synchronously through the online course management systems of these two universities during Covid-19 pandemic. In line with the aim of the study, the learners were informed about the chart and were asked to follow the phases, the steps, and the actions listed in it as they progressed in their writing tasks. While doing so, they were requested to fill the chart's self-check boxes (i.e., done, not done, will do (when?) for the three argumentative research-integrated writing tasks that they would be assigned in the course. They were expected to submit a completed chart along with each essay submission.

Data Collection Tool and Procedure

Previous to their first assignment, the SMC was introduced to the participant learners through a virtual meeting and a screencast video that explained the chart in detail. The virtual meeting was held previous to the participant learners' first assignment using Google meet and lasted 57 minutes. In the meeting, the chart was explained, the rationale and the theoretical basis were shared, and theoretical and practical information on SRL strategies and their implementations were discussed. During the meeting, the participants were encouraged to share their opinions and ask questions regarding the content and/or the implementation of the strategies in the chart. In addition, a screencast video was prepared by one of the researchers and lasted 74 minutes. In the video, the researcher explicated and exemplified each phase, step, and action in the chart in a detailed way while explaining each action's corresponding strategies. The video link was shared with the participants together with the SMC chart that they were supposed to fill while completing their first writing task. They were asked to fill the chart for each of the following three assignments as well and send it along with their each assignment.

Following the submissions of three argumentative research-integrated writing tasks along with filled SMCs, the semi-structured interviews, developed by the researchers to investigate the learners' opinions on the SMC, were conducted online with the volunteering learners (see Appendix A). These interviews were recorded and were transcribed verbatim by the researchers. The qualitative data was analyzed following inductive content analysis method (Mason, 2002). In the first step of the analysis, each researcher interpreted the themes and codes separately. Then, these first results for the emerging codes were compared and the differences were discussed until the disagreements were resolved. In order to increase credibility and transferability of the data, the researchers worked on the themes together. After the researchers tabulated and interpreted the themes and codes together, another coder worked with the researchers on some randomly selected episodes from the interview transcripts. The calculated interrater reliability was based on percentages using the following formula: [Reliability= (number of agreements)/ (number of agreements+number of disagreements)*100] (Miles & Huberman, 1994). The interrater reliability in this study was found to be 89 %, which is considered to indicate a considerably high level of reliability as any value above 75% is considered to be acceptable (Mackey & Gass, 2005).

FINDINGS

In the semi-structured online interviews conducted, the participants' opinions on the SMC were elicited. The emerging frequent themes regarding the participant learners' opinions were directed towards two main categories: The themes in first category were related to "Opinions on SRL strategies and their implementations", which had three sub-categories as a) "becoming aware of the strategies", b) "learning how to employ the strategies", and c) "being motivated/encouraged to use the strategies".

Table 2. Frequencies of themes and subthemes for the first category

	Awareness		Implementation			Motivation to use	
	Became aware with SMC	Already knew some	Pre-writing	Writing	Post-writing	Highly	Moderately
F	32	16	32	14	38	28	14
%	66.6	33.3	66.6	29.1	79.1	58.3	29.1

According to the results, the majority of the participants became aware of the SRL writing strategies for the first time by the help of SMC (66.6%) while some of them stated that they already knew some of the strategies (33.3%). As one of the participants put it; '*It was not until the time that you have sent this chart [that I had used] these strategies that you have shown us in the self-monitoring chart*' (L12).

The participants also commented on the use of the strategies during their writing tasks stating that they practiced implementing various SRL strategies during different phases of their writing assignments. For example, one of the participants expressed that '*These strategies are the key supports that help me to improve my writing skills. Although I use all the strategies from time to time, in my writing process, I started to use the brainstorming strategies before starting the actual writing all the time, a grammar checker for the purpose of examining and checking examples about the subject while writing, and I will continue to use them. I also use the links from post-writing section*' (L7). Another participant commented in a similar way; '*Thanks to this chart, I've minimized my grammar errors. Plus, the pre-writing section supported me to make up sentences from random brainstorming ideas, and I verified the accuracy of my paper with samples. Moreover, I can say that writing does not scare me like it used to as I have understood that by following the steps, I can do it easily*' (L11).

There were responds for using SRL in pre-writing, writing, and post-writing stages, yet, post-writing strategies was the most highly mentioned (79.1%). As one participant stated; '*I became much more conscious about how I should approach towards a writing assignment. Especially for the post-writing part, I believe that I have started to benefit from them*' (L18). Similarly, L9 said that '*During this process, I have learnt what exactly I should do to edit my writing. Beforehand, I used to read my written work and could not find anything to change before I submit it*'.

Another frequently mentioned SRL writing strategies during the interviews were those in the pre-writing phase (66.6%), such as goals setting and planning as stated in the following excerpt: '*Firstly, I believe the chart is really helpful for those who get anxious and unaware of what, or how to write. It does not only provide simple instructions but it also gives tips to the students. Especially the pre-writing section is a very basic and sufficient guide to start a paper and for gathering one's thoughts around*' (L34). One of the participants told his first experience in the following words: '*Beforehand, I was just starting to write and then I was submitting my assignments. Now, what I have learned is that it is a process that requires planning*' (L19). Another one said that '*I have learned to organize my work as I can now make a plan for myself and write an outline for a research assignment. I am able to plan on making my homework assignments better now*' (L22). Another learner explained how SMC assisted her to implement the strategies for setting goals and planning: '*I get help from this chart, especially when setting short goals that will organize my writing environment and control my writing process*' (L31).

The smaller group of participant learners has also indicated that with the help of this chart, they were able to become more aware of and could use these strategies in the 'performance phase' (29.1%), as they could monitor and evaluate their performance in writing. For instance, L33 stated that '*My friend and I exchanged our writing assignments and we gave feedback to each other's essays. Afterwards, we made some corrections on our assignments before we resubmitted them. I believe this process will help me get better grades*'.A similar comment was made by another participant; '*It helped me to be more structured in the writing process and to pay attention to even small points. In this way, I think my rate of making mistakes have decreased*' (L15).

Overall, the participants pointed out that SMC increased their awareness of different strategies to be employed while they were involved in any writing activity and it also helped them to utilize some strategies for goal setting, performance, and evaluation successfully. They also revealed that they were willing and motivated to make use of SRL writing strategies in their future academic life as thanked the course teachers, i.e., the researchers, for the personalized guidance for autonomy.

The second category included the themes related to the participants' engagement levels in their writing tasks while using SMC and the frequencies and the percentages of the themes and subthemes are given in Table 3 below:

Table 3. The frequencies of the themes and subthemes for the second category

	Spending more time on …					Motivation	
	Planning	Searching for Resources	Writing	Editing	Communicating about writing tasks	Highly	Moderately
F	32	14	28	29	11	32	16
%	66.6	29.1	58.3	60.4	22.9	66.6	33.3

As can be seen in Table 3 above, the majority of the participants stated that they started to spend more time and energy on their writing tasks after using SMC, which indicates higher levels of engagement in writing. Specifically, they reported to spend more time on planning their writings, as stated by one participant: '*I am still using those strategies and they help me a lot. I used to get in trouble with my timing and I struggled a lot of times about how to start writing. I realized that I didn't use to spend any time on planning my writing. That chart gave me the planning skill*' (L6); or as another participant put it; '*I believe the chart is beneficial as it is very detailed. … There are different actions in each step. They include many tips from brainstorming to samples with useful links. They all helped me to plan every single detail about how to do it and when to do it. I saw that when I spend enough time on planning and organizing, I have better writing quality*' (L4).

They also reported to spend more time on organizing or editing their writing tasks (e.g., '*Thanks to this chart; I believe every student like me is a better writer than they were. This chart helps you to make a unity in your writing by following the steps. It helps you to organize your ideas and prepare you to the last version of your writing piece. It shows that you can't reach the perfect version of your writing if you do not care and observe it as long as it requires*'(L20); '*First of all, I think it provides a broad perspective for the writing skill since the table is too detailed and you need to work on it several times to understand it. While examining the chart, I have made a lot of use of the table in my homework processes by organizing many things, so I think it is very beneficial/helpful, though I realized now finishing my writing tasks takes much longer*'(L12) '*I've minimized my grammar errors with the help of this self-monitoring chart. It urged me to control the tiniest points of my papers. It takes more time now; but thanks to the chart, I am no longer nervous to write a paper since there is a chart that I can keep in control my papers*' (L14).

The other important theme that emerged from the interviews carried out is 'being motivating'. Most of the participant students stated high levels of motivation towards writing thanks to using the SMC (66.6%). While a smaller group stated moderate levels of motivation (33.3%), there were no responds indicating de-motivation or discouraging effect of using the SMC. As stated by one of the learners; '*I learned effective writing strategies thanks to this self-monitoring chart. Through this chart, I realized my mistakes better. Besides, it affected positively my attitudes towards writing. Now I think I kind of like to write*' (L37).

Many students thought that once they became aware of the strategies that could be used in their writing assignments, they became more motivated for their writing assignments in the future, as the participants stated, '*I am planning to do more research after the feedback you gave us because I have learnt a lot about writing*' (L19); '*I have learnt many different websites that I was not aware of and also the different techniques of searching online which I am planning to use in the future for my assignments*' (L12); '*It was quite beneficial. Why not use them in the future as well? I think they will all help me get higher grades*' (L10); '*Additionally, I would like to point out that I am going to -without a doubt- take advantage of this chart for the upcoming assignments aiming for writing skills*'(L21).

The last group of themes included the responses related to "Opinions on SMC as a Tool", which yielded negative and positive groups of themes with multiple sub-categories under each. Their distribution is given in Table 4 below:

Table 4. The distribution of negative and positive opinions on SMC as a tool

	Negative Opinions on SMC as a Tool			**Opinions on SMC as a Tool**			
	Complex	Time-consuming	Unnecessary	Practical	Clear	Useful	Supportive
F	5	2	1	26	34	39	21
%	10.4	4.1	2	54.1	70.8	81.2	43.7

While the majority of the opinions elicited regarding the use of SMC were highly positive, eight participants expressed negative opinions. They either found the use of the chart complex (10.4%), time consuming (4.1%), or unnecessary (2%). As expressed by one of the participants, '*The chart was a little bit too detailed for me. I sometimes got bored following the steps. They were too many and complicated*' (L18).

On the other hand, the positive comments were significantly higher. The participants found the chart to be practical (54.1%), clear (70.8%), useful (81.2%), and supportive (43.7%). A high number of students mentioned the usefulness of the chart stating that; '*I found it very useful and helpful in terms of effectiveness of my writing skills, and I could better understand what I have done and what I should do next for these writing steps thanks to this chart*'; (L42) '*The chart is definitely beneficial because it made me realize what i know and what I'm lack of. It also gives many tips on brainstorming with some useful links to benefit from*' (L16) '*The chart was helpful since I controlled my papers according to the points that are written on the chart. It was a very detailed chart, and it helped me analyze my papers in depth. There were many tips such as brainstorming and samples*' (L13). They also stated the support they felt when using the chart; '*I found it pretty supportive for writing. It helped me when I wasn't sure if something that I wrote was correct or wrong. Since I could easily open the chart and look over it, it was a great option for me to get rid of the doubts of my writings*' (L17). The practicality was another frequently mentioned theme: '*In my opinion it is very beneficial to have such a chart. I can say that it is easier for the article to be prepared to be divided into pieces and planned in an orderly fashion like a skeletal system ... writing techniques that were previously very complicated started to become a little more understandable for me. I can't say that of course I got it done, but my point of view has changed and it started to get clearer about writing*' (L24) '*Thanks to this table, my grammatical mistakes have decreased, my writing has become more organized and qualified. In addition, the fact that everything in the table is divided into parts in detail, it has made this process easier for me by enabling me to do the writing assignments I have overlooked in a more disciplined and organized manner*'(L25).

Overall, the participants' opinions on the SMC and their experiences of using it were mostly highly positive and one participant explains it as: '*Finally, it affected me positively. While I was thinking that there was not anything else I should be careful about, I recognized several points where I am to be more cautious. It also approved some things that I am already doing, which was a relief for me. Now, with the help of the chart, I am trying to be more thorough*' (L29).

CONCLUSION

Up until the outbreak of Covid-19 pandemic, online education was delivered in some institutions, usually by choice. Today, it is the

mode of learning for all schools around the globe, and it seems likely to be the case in the future, and thus, it has become an essential for learners to be equipped with the strategies that will be beneficial for them to deal with the challenges of the virtual learning settings. Training learners to become more autonomous, particularly at higher education level, could help them adapt to the new era of online learning. Equipping them with SRL learning strategies, enhancing their digital literacies, and providing collaborative learning experiences to compensate for lack of social interaction seem to be among the starting points. In order to help smoother transition to virtual learning environments, not only learners but also teachers need support in terms of applicable and efficient methodologies for online learning. Instructional suggestions that enhance learner engagement and motivation should be provided in order to help teachers.

To promote SRL strategies, teachers could integrate SRL strategy training programs or any other form of guidance to their online teaching practices in order to introduce and equip their learners with flexible and effective use of cognitive metacognitive, affective, and socio-cultural writing SRL strategies. Despite the many negative impacts of the pandemic, developing methods and means to assist higher education learners to become autonomous is likely to be among the positive outcomes. Academic writing courses at higher education level could provide one of the viable venues for such integration.

As an attempt to provide a tool for higher education learners to be equipped with self-regulated learning strategies (SRL) in order to assist them to be productively engaged in their academic writing tasks, a self-monitoring chart has been developed. The SMC chart proposed in the study is meant to assist higher education learners throughout their academic writing improvement by assisting them to implement SRL writing strategies while providing practical tips on implementation and resources. The overall findings indicate that the learners greatly benefited from implementing the SMC. They reported to have become aware of SRL writing strategies, to have learned how to implement them, to be more engaged in writing tasks and more motivated to write. Yet, according to the opinions of the participant learners, the SMC needs improvement in several aspects. First of all, it needs to be simplified for the first time users in order not to overwhelm them. Also, as the participants stated that they benefited greatly from the practical examples and web sites mentioned, more examples, digital resources and applications, and practical alternatives should be added to the chart. Further studies with larger samples and mixed data are needed to improve the chart. As research in the field has frequently highlighted the importance of tailoring SRL instructional practices based on situational factors because learners' adoption of strategies is affected by both context and some learner characteristics (Csizer & Tanko 2017; Han & Hiver 2018), the SMC chart could be tailored based on the contexts intended to be used. Also, future studies could investigate the impacts of such tools on learners' achievement.

Conflict of Interest Statement: No conflict of interest has been declared by the authors.

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APPENDIX A: Semi-Structured Interview Questions

1. Before using the SMC, were you familiar with SRL writing strategies? If yes, which ones? How often did you use them?
2. Has using the SMC helped you to become familiar with SRL writing strategies? If yes, which ones?
3. Did you use/Do you still use these strategies for your writing assignments? How often?
3. Which of the SRL writing strategies do you find most helpful for you? Why?
4. Do you think your engagement level for L2 writing has changed after using the SMC? If yes, how?
5. How did this chart affect your view towards foreign language writing?
6. What is your opinion about the chart? Do you think it was beneficial/helpful? If yes, how did you benefit from it?
7. Please share any other opinions or comments you have.
Thank you for your contributions.

APPENDIX B: Self-Monitoring Chart for Effective Writing Strategies

Phases	Steps	Actions	Have you ………?	Self-Check		
				Done	Not Done	Will Do (when?)
Pre-Writing	Knowing what to do	Understanding the Assignment	Make sure you know exactly what the topic is Make sure you know exactly what the specific focusing points in the topic are Check whether it is research-integrated or based on personal opinions/observations paper Clarify in your mind what you are expected to dwell on throughout your writing (Are you going to explain or summarize or discuss or argue, etc.)			
		Knowing the Formatting requirements of the assignment	Make sure you know the required format (e.g., paragraph, essay, research paper, report, etc.) Make sure you know any specific requirements for the page layout			
		Attending to the Deadline	Take note of the assignment deadline Make sure you know where and how you are supposed to submit it (e.g. online, in class, etc.) Make sure you get ready mentally			
		Attending to the Required Length	What is the required length in number of words or pages? Try to keep focused and calm			
		Attending to the Required Style	What tone is expected from you [a] academic & scientific or casual; b) formal or informal; c) argumentative or informative or entertaining]?			
	Setting Goals	Set short and long term goals for your writing improvement	Decide when to start Decide when to finish Decide which grade you want Visualize and decide on the final quality of your assignment Think about ways to maintain your concentration (e.g., rewards, self-talk, help from peers or parents, doing physical exercises, etc.)			
	Organizing your study environment	Set an optimum study environment to write	Eliminate distractions that might interfere with writing Avoid watching television/ using cell phones/ talking with friends/ multi-tasking / listening to music, etc. while working on a writing task Work on writing tasks at one's most productive times (e.g., early in the morning, late at night, in the afternoon, etc.) Work on writing tasks at one's most productive places (e.g., at home, in one's own room, in a library, at school, in a park, etc.) Work on writing tasks under one's most productive conditions (e.g., silence, darkness, crowd, organized or clean environment, etc.) Avoid disturbance from other people, physical environment, other thoughts or duties, psychological tensions, etc.			
	Having sufficient knowledge on the topic the topic	Brainstorming	Activate your previous knowledge on the topic. Write them down if it helps Use brainstorming techniques (e.g, mind mapping, listing, etc.) Check https://www.wework.com/ideas/worklife/effective-brainstorming-techniques for more techniques			
		Gathering necessary Resources	Conduct extensive research using credible sources (e.g., Google Academic, University Library – Science Direct or Sage, Elsevier, JSTOR, or Taylor & Francis Journals)			
		Reading on the topic	Keep on the main topic and take notes of the relevant information you find. Remember to note the publication details for Citation using APA			
	Outlining	Finding the main points/arguments to be addressed in the writing assignment	Identify at least two main arguments that you will argue in your writing to support your stance			
		Deciding on the order of the main points/arguments to be addressed in the writing assignment	Decide how to order the main arguments you have decided			
		Identifying how to explain each main point/argument	Decide what information you need to explain each main argument Collect required information to explain your argument from credible sources Refer to your notes if you have already completed your search on the topic			
		Identifying how to support each main point/argument	Decide what information you need to support each main argument Collect required information to support your argument from credible sources Refer to your notes if you have already completed your search on the topic			
		Identifying how to exemplify each main point/argument	Decide what examples you need for each main argument Collect required examples for your argument from credible sources Refer to your notes if you have already completed your search on the topic			
		Identifying what to write as an introduction	Check sample college papers/essays to get ideas on what to write in introduction (e.g., https://mypaperwriter.com/samples/ https://www.shemmassianconsulting.com/blog/college-essay-examples https://collegepapersamples.com/ https://resources.library.lemoyne.edu/guides/history/handbook/sample-papers) Find online sources for best samples and share these sources with your friends Make sure you take notes of the ideas/phrases/styles you like			

		Identifying what to write as a conclusion	Check sample college papers/essays to get ideas on what to write in conclusion (e.g., https://mypaperwriter.com/samples/ https://www.shemmassianconsulting.com/blog/college-essay-examples https://collegepapersamples.com/ https://resources.library.lemoyne.edu/guides/history/handbook/sample-papers) Find online sources for best samples and share these sources with your friends Make sure you take notes of the ideas/phrases/styles you like			
Writing	**Writing the Introduction**	Writing an effective and intriguing starting statement(s)	Check your notes from sample essays for useful/effective the ideas/phrases/styles to write starting statements			
		Writing appropriate and striking lead-in statement(s)	Check your notes from sample essays for useful/effective the ideas/phrases/styles to write lead-in statements			
		Writing an effective Thesis Statement	Check your notes from sample essays for useful/effective the ideas/phrases/styles to write a Thesis Statement			
		Hinting the main arguments to be discussed throughout your essay	Check your notes from sample essays for useful/effective the ideas/phrases/styles			
	Writing the Body	Writing the first body paragraph	Check your notes from sample essays for useful/effective the ideas/phrases/styles			
		Integrating the main argument to be discussed in the first paragraph	Write an effective Topic Sentence that will introduce your main argument for this paragraph Check your notes from sample essays for useful/effective the ideas/phrases/styles to write a Topic Sentence			
		Explaining clearly what you mean by your argument	Make sure you use clear explanation of what you mean so that the readers do not have to guess or complete the story or be misled by incomplete/vogue statements			
		Writing supportive evidence	Write supportive statements (facts, testimonies, research results, official reports, statistics, etc.) to back up your argument Add clarifying/highlighting examples (where applies)			
		Writing the second body paragraph	Check your notes from sample essays for useful/effective the ideas/phrases/styles			
		Integrating the main argument to be discussed in the second paragraph	Write an effective Topic Sentence that will introduce your main argument for this paragraph Check your notes from sample essays for useful/effective the ideas/phrases/styles to write a Topic Sentence			
		Explaining clearly what you mean by your argument	Make sure you use clear explanation of what you mean so that the readers do not have to guess or complete the story or be misled by incomplete/vogue statements			
		Writing supportive evidence	Write supportive statements (facts, testimonies, research results, official reports, statistics, etc.) to back up your argument Add clarifying/highlighting examples (where applies)			
		Repeat for the third/fourth/fifth paragraphs				
	Conclusion	Start the conclusion with a signaling transition/connector, etc.	Check your notes from sample essays for useful/effective the ideas/phrases/styles			
		Restate your thesis or write a general conclusive statement	Check your notes from sample essays for useful/effective the ideas/phrases/styles			
		Summarize your main arguments briefly (the ones you want to emphasize)	Check your notes from sample essays for useful/effective the ideas/phrases/styles			
		Write a concluding remark	Check your notes from sample essays for useful/effective the ideas/phrases/styles for concluding remarks (e.g., suggestion, prediction, recommendation, warning, a personal stand, a famous quote, etc.)			

Post-Writing	**Editing**	Edit your writing for grammar use accuracy	Use tools to help you (e.g. computer such as Office program software tool grammar check, Grammarly, WhiteSmoke, LanguageTool, etc.) Exchange with peers to give each other feedback			
		Edit your writing for vocabulary use accuracy	Use tools to help you (e.g. computer such as Office program software tool language check, Grammarly, MyVocab, LancsLex, WhiteSmoke, LanguageTool, etc.) Exchange with peers to give each other feedback			
		Edit your writing for spelling	Use tools to help you (e.g. computer such as Office program software tool language check, LanguageTool, etc.) Exchange with peers to give each other feedback			
		Edit your writing for punctuation & capitalization	Use tools to help you (e.g. computer such as Office program software tool language check, LanguageTool, etc.) Exchange with peers to give each other feedback			
		Edit your writing for formatting style (e.g. APA Style)	Visit useful web sites to learn and check for formatting (e.g., https://apastyle.apa.org/ https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_style_introduction.html https://www.easybib.com/guides/citation-guides/apa-format/ Find online sources for best samples and share these sources with your friends			
		Check for Originality	Visit useful web sites to check for originality (i.e., plagiarism) (e.g., TurnitIn, Ithenticate)			
	Improving	Edit your writing for redundant/irrelevant sentences	Read throughout and underline less relevant or redundant statements/sentences Eliminate the ones you find irrelevant or misplaced Exchange with peers to give each other feedback			
		Edit your writing for completeness	Read throughout and decide if every argument you state is supported/explained/exemplified Add statements if you think there is a need Exchange with peers to give each other feedback			
		Edit your writing for coherence (logical flow of ideas between/among sentences and paragraphs)	Identify the points where you move from one argument to a different one. Is there a logical transition? Reorder the arguments/statements if you think necessary Exchange with peers to give each other feedback			
		Edit your writing for cohesion (effective transition between/among sentences and paragraphs)	Identify the points where you move from one argument to a different one. Is there an efficient /appropriate transitory word/phrase? Add connectors, transitions if necessary Exchange with peers to give each other feedback			

		Improve sentence structure quality, variety and effectiveness	Analyze college level sample essays (e.g., https://mypaperwriter.com/samples/ https://www.shemmassianconsulting.com/blog/college-essay-examples https://collegepapersamples.com/ https://resources.library.lemoyne.edu/guides/history/handbook/sample-papers) Find online sources for best samples and share these sources with your friends Make a list of useful phrases/structures as you read through sample essays Keep a journal/notebook to record the useful phrases/structures you have noted to help you improve your writing quality Check your writing and determine the structures that could be replaced by the ones you noted from the sample writings			
		Improve vocabulary quality, variety and effectiveness	Use variety of vocabulary and avoid repetition or use of weak words (check https://www.thesaurus.com/ https://www.merriam-webster.com/thesaurus https://www.collinsdictionary.com/dictionary/english-thesaurus) Analyze college level sample essays (e.g., https://mypaperwriter.com/samples/ https://www.shemmassianconsulting.com/blog/college-essay-examples https://collegepapersamples.com/ https://resources.library.lemoyne.edu/guides/history/handbook/sample-papers) Find online sources for best samples and share these sources with your friends Make a list of useful phrases/words as you read through sample essays Keep a journal/notebook to record the useful phrases/structures you have noted to help you improve your writing quality Check your writing and determine the structures that could be replaced by the ones you noted from the sample writings			
	Proofreading	Proof-read your writing with a fresh mind and apply necessary changes/improvements	Correct/change/improve where necessary			
		Evaluate/Assess your writing using the rubric/criteria used by your teacher	If you are not happy with your evaluation result, repeat editing cycle			
		Have a peer proof-read your writing for constructive feedback (do the same for your friend) apply necessary changes/improvements	Give clear and constructive feedback to your friend. Make sure you avoid general/vague/cliché feedback such as "I like it", "it is good", "good", "not good", etc. Be specific to help. Remember, you are not asked for your opinion but for your expertise in writing and your attention to details.			
		Evaluate/Assess your writing again using the rubric/criteria used by your teacher	If you are not happy with your evaluation result, repeat editing cycle If you are happy with the result, reward yourself!			
	Submit!	**Congratulations!**				