



# Implementing Mobile Mediated Collaborative Writing (MMCW) to Empower Self-Regulated Learning in the EFL Classroom

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**Abstract.** Writing in EFL classes needs multidimensional competences including cognitive, metacognitive, socio-behaviour, and motivational aspects in the whole process. Unfortunately, previous studies have been focused more on writing products, cognitive aspects, and individual types. Therefore, to fill in the need, the aims of this study are twofold: (1) to provide a model of Mobile Mediated Collaborative Writing (MMCW) within the framework of self-regulated learning, and (2) to find out the learners' opinions of their new experiences in MMCW practices. This is a case study involving an EFL teacher and 20 students in a private university in West Java, Indonesia. Classroom observation was conducted in the MMCW process and followed by semi-structured interview to the EFL teacher and six selected students. The data was collected and analysed thematically. The findings of the study would be beneficial for EFL teachers and students to provide pedagogical practices of MMCW in self-regulated writing activities. In addition, EFL teacher and students build their viewpoints on practicing MMCW in self-regulated writing activities. The conclusion would share implications for EFL teaching and learning and provide recommendations for future practices and research in writing classes.

**Keywords:** Collaborative writing, MMCW, Self-regulated learning.

## 1. Introduction

Several literatures have reported that writing skill needs multidimensional strategies including cognitive, metacognitive, socio behaviour, and motivational aspects during its process [1], [2], [3]. In the process of writing, EFL students naturally nurture cognitive loads to produce ideas, insights, and written expression and to integrate their vocabulary mastery, reading comprehension, critical thinking, and structural competence into greater writing performance. Technically speaking, students commonly plan, revise, draft and polish their writings [4]. In addition to its procedures, they need to monitor, operationalize, set, and evaluate their goals of writing progress in promoting their written work in the context of English as a foreign language [5]. The studies by Poorebrahim et al. [6] and Teng and Zhang [7] are mentioned that the socio behavior dimension indicates that they collaborate, peer work, discuss to result the best version of written work. Given the supporting statement, Guo et al. [8] mention that the motivational strategy maintains EFL students' motivation, engagement. It also avoids distraction and misperception during the process of writing. These four dimensional strategies are holistically coalesced to accommodate students' competences of writing.

To facilitate four multidimensional competences in writing class, self-regulated writing activities or instructions are convinced by EFL teacher to accommodate students' needs. Several

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studies showed the effectivity of self-regulation learning strategies mediated in writing classes [9], [10]. McArthur et al. [11] report that the current approach provides effective training aid which focus on assisting students in boosting their writing production by helping them learn more about writing strategies, practice self-control techniques for prioritizing their efforts, set goals, and evaluate their progress. Sari et al. [12] write that similar instructions on self-regulated writing strategies contribute to both students' paragraph and essay writing, and this indicates that social environment including peer assistance, discussion and collaborative work outperformed than other dimensions of instructions.

The various model of self-regulated writing instructions and activities proposed by some experts have been evidenced the worth application in various levels of education [13], [14]. The framework provides the writing strategies and accommodates students' self-regulated learning to boost students' writing skill [15]. Given the supporting detail statement from classroom practices, students are stimulated to begin their activities from pre-writing including background knowledge activation, positive affirmation, writing strategy used, and self-regulation to solve students' problem on achieving good writing performance [16]. In addition to the core activity of writing, students learn the writing strategies, observe teacher's elaboration, practice using strategies altogether with other classroom members, in group, and also individually. It also captured that they are trained to supervise their writing works through self-assessment and peer review before submission proceeded.

Highlighted from recursive instructional self-regulated writing activities, collaborative writing (CW) is one of the activities offered into instructional design to promote students' writing performance. CW donates effective contribution on students' performance instead of individual work [17], [18], [19]. Besides the cognitive impact, the positive engagement during the occurred process has been reported dynamically [20], [21]. The process is also indicated that students boost their competency in peer handling, feedback management, and self-correction [22]. Constructed from the theories from technology enhanced collaborative writing (TECW) and computer mediated collaborative writing (CMCW), the exploration of specific use of mobile devices has been investigated unexclusively. In regard to recent and massive technology development, mobile devices such as tablets and smart phones fulfil its features as well as personal computer and becoming more important in language learning [23]. Shortt et al's [24] study reports that the utilization of several applications in mobile devices offer the pervasive reach, flexible functionality, and freemium business model which has brought significant attention on language learning particularly writing as a foreign language. In addition to cultivate its potential advantages of CW implementation under the framework is rarely conducted [25] and [26]. The present study investigates the collaborative writing under analytical framework of self-regulated writing activities which remain its effectiveness and focuses on (1) providing a model of Mobile Mediated Collaborative Writing (MMCW) within the framework of self-regulated learning, (2) finding out the EFL students' opinions of their new experiences in MMCW practices.

## 1.1 Self-Regulated Learning (SRL) and Academic Writing

The literature has proven that students with high self-regulated learning strategies outperform their writing performance [27], [28]. Self-regulated learning (SRL), which is a concept in educational psychology, is best understood as a dynamic, productive process in which students define learning objectives, monitor, regulate, and control their cognition, motivation, and behavior [29]. SRL strategies-based instruction has a solid track record in L1 writing situations, as students are given practical tips for finishing writing assignments to increase their resourcefulness, self-reflection, and goal-orientation [30]. Teng and Zhang [31] prove that self-regulated writing instructions are relevantly suited to L2 learners or English as a foreign language to empower students' writing outcome.

Conceptualized from the SRL framework in English as a foreign language context, the research findings draw upon into implementation of self-regulated learning strategies in writing instructions which beneficially impact on students' writing achievement. For example, Zimmerman [32] determine three phases of writing process namely pre-task phase (goal setting, and plan what to write), performing task phase (plan implementation and monitor the writing process), post task phase (writing reflection). In addition, integration of genre-based approach and self-regulated learning strategies which is named genre based self-regulated instructions (GBRSI) report impressive application in Thai's writing class in regard to students' writing ability and their self-regulation strategies [33]. Chen et al. [34] highlight that average writing test evaluations reveal that both instructions of self-regulated strategy development conditions are more successful than the comparison condition at assisting participants in improving text quality. Compared to the comparison group, the treatment groups generate writing that was more reader-friendly and experience bigger increases in content scores.

In regard to its advantageous sphere of self-regulated learning (SRL) writing activities and the necessity of technology enhanced into pedagogical practices, the alacrity studies have been conducted for recent needs in educational context. Han et al. [35] mention that to support students' SRL learning and improve their writing skills, learning management systems and automated writing evaluation (AWE) platforms may both be used. They draw the conclusion that the employment of SRL techniques and the technical tools employed in this investigation were favorably correlated. In the classroom practices, all three stages of online self-regulated writing involve students using internet resources [36] and show prominent different both qualitative and quantitative [37].

## 1.2 Collaborative Writing

Collaborative writing (CW) refers to joint activity in producing single writing which is requested a shared document where group members participate in a meaningful way, make decisions together, and take ownership of the content [38], [39], [40],[18], [19]. Alongside the process, students gain writing skills from their peers, gain knowledge and make decisions together, learn how to resolve problems and disagreements, use methods, and make collaboration a positive experience for everyone through teamwork and cooperation [41].

Storch [19] defines two stages of the most significant empirical studies on collaborative writing published from 1994 to 2017. The majority of researchers used conventional techniques to perform collaborative writing activities in the first stage (from 1994 to 2009), which involved having students write in pairs, on paper, face-to-face, and in classrooms. The majority of the collaborative writing experiments during the second stage (from 2009 to 2017) used computers and the Internet. According to Storch's assessment, the primary emphasis of the studies on collaborative learning are on the behaviors of the students while they engaged in writing and interaction as well as the language learning results of this activity.

Numerous research findings on collaborative writing remain positively from various level of education. A study by Azkarai and Kopinska [42] highlight that the process of collaborative writing for Spanish EFL young learners reveal that most pairs displayed a cooperative and collaborative pattern of interaction, language related episode (LRE), and initial task motivation of the participants. In the context of secondary education, findings show that the paired works create compositions that are more concise but also more accurate, with a minor increase in lexical and grammatical complexity. They also scored higher in terms of substance, structure, and organization. In addition, students have the chance to collaborate, share ideas, consider their language use, and give feedback to one another (collective scaffolding) [43]. In addition to its beneficial contribution, Zheng et al. [44] report that the collaborative writing at tertiary education can be used as an alternative and effective way using in classroom practices. Driven under the framework of technology enhanced collaborative writing (TECW) and computer mediated collaborative writing (CMCW), mobile mediated collaborative writing (MMCW) contributes beneficial consideration due to its practicality and flexibility in educational settings. Starting from TECW and CMCW refers to the practice of leveraging digital tools and technologies for collaborative writing [45], [19]). Technology or computer can make "creation and sharing of texts" easier and more accessible for students, as well as increase writing and communication efficiency over traditional, in-person, paper-based collaborative writing [46].

## **2. Method**

### **2.1 Research Design**

The present study employed a descriptive case study proposed by Cresswell and Poth [47] to answer two addressed research objectives in providing a model of MMCW under the framework of self-regulated activities (SRWA) and finding the EFL students' opinions of their new experiences in MMCW practices in writing class.

### **2.2 Research Participants and Context**

The study engaged an Indonesian EFL teacher and twenty sophomore students which are learning English as a foreign language for their professional development as the prospective teacher. The convenience sampling was used to determine their participation on data collection and they have committed to joining the research agenda by submitting the commitment letter. The EFL teacher is teaching during eight years ago in university setting focusing on writing skills including writing for beginner, sophomore and advanced students. She equips herself with professional teacher certificate, language proficiency certificate, and professional development on related skill. Moreover, twenty

university students consisting sixteen female students and four male students on average B1 level (intermediate) which has diagnostically tested using internal prediction test. Moreover, the six selected students (purposive sampling) were determined to attend semi-structured interview which is elaborated in the following table.

Table 1. Research participants of interview

Participant Initial	Gender	Participant Writing Competency
S1	Female	Low
S2	Male	High
S3	Female	High
S4	Female	Moderate
S5	Male	Moderate
S6	Male	Low

### 2.3 Data Collection and Analysis

The qualitative data from participant classroom observation and semi-structured interviews were conducted into writing classroom practices. Several classroom observations were applied during eight meetings of writing class to collect the data classroom viewpoints. The classroom agenda cover pre-test, MMCW under the SRWA treatment, and post-test. To assist the researchers in investigating the data, video recorded and observation checklist were used to the session. After data gained, research data were analysed thematically using NVivo 12 to ease researchers in data interpretation.

In addition to find out students' perceptions on experiencing MMCW under the framework of self-regulation writing activities, semi structured interviews were distributed to six selected students from three levels (high, moderate, and low) of their writing performance of pre-test. The interviews lasted around 30 minutes and were conducted in Indonesian to dig their opinion and experiences of MMCW implementation. Individual semi-structured interviews were taped, transcribed, and then translated into English for further data analysis. Member checking processes were employed to evaluate the accuracy of the interview data further. Furthermore, to ensure accuracy, the interview questions were explained to the participants during the interview session. The transcripts of the interviews were also provided to the students so that they could review the accuracy of the information and, if necessary, make edits or revisions.

## 3. Research Findings

### #RQ 1. How does EFL teacher provide a model of Mobile Mediated Collaborative Writing (MMCW) within the framework of self-regulated writing activities?

Answering the research question on how EFL teacher provides a model of MMCW within the framework of SRWA, we employed participant classroom observations in writing class as the it is presented as follows.

Table 2. Classroom observation research finding

Theme	Subtheme	Classroom Activities
Cognitive	Course Memory	<p>Measuring students' background knowledge through pre-test.</p> <p>Assessing students' vocabulary mastery which is relevant of argumentative texts which are being learnt.</p> <p>Overviewing generic structure of argumentative texts.</p> <p>Elaborating STOP DARE writing strategy.</p> <p>Introducing action of self-regulation strategies: self-talk, goal setting, self-statement.</p> <p>Implementing power point presentation to support the learning using SRWA framework.</p> <p>Using flashcards STOP DARE</p> <p>Distributing worksheet to support learning MMCW under SRWA framework.</p>
	Text Processing	<p>Instructing students to analyze argumetative texts as a model of learning.</p> <p>Providing vocabulary lists in relation to argumentative texts which will be learnt.</p>
Metacognitive	Idea Planning	<p>Discussing students' role in learning and applying the strategies STOP DARE</p> <p>Asking students to commit to learning the strategies</p> <p>Guiding students in setting goals for learning and strategy use</p> <p>Introducing self-graphing and guide students in graphing performance</p> <p>Discussing situations in which students may apply the strategies</p>
	Goal Oriented Monev	<p>Asking students to create self-statement in sticky notes</p> <p>Checking and discussing students' goal setting</p> <p>Monitoring students' goal setting in students' worksheets</p> <p>Assessing students' memorization of the academic strategy and self- statements</p> <p>Discussing self-statements including importance and</p>

		<p>appropriate uses</p> <p>Accommodating students complete practice activities (e.g., songs, matching games, partner quizzing) to memorize the academic strategy and self-state-ments</p>
Socio-behaviour	Peer learning	<p>Providing opportunities for students to practice the academic and self- regulation strategies with support of writing strategy STOP DARE</p> <p>Giving opportunities for students to practice the academic and self- regulation strategies with support of self-ssessment rubrics</p> <p>Distributing e-worksheets of writing strategy within SRWA framework</p>
	Feedback Handling	<p>Monitoring students' progress</p> <p>Removing supports as students can apply the strategies independently in collaborative writing</p> <p>Reteaching lessons to students who are struggling to apply the strategies</p>
Motivational	Interest enhancement	<p>Modelling how to use application of strategies through think-alouds and use of materials that students will use</p> <p>Discussing self-statements including importance and appropriate uses</p> <p>Facilitating students to create self-statements for future use</p> <p>Implementing interesting activity (games, quizzes) to nurture students' interest in writing</p> <p>Distributing relevant topics with students' needs</p>
	Motivational self-talk	<p>Giving attractive reminder to students to achieve their goals</p> <p>Giving rewards for students who are doing their bests</p> <p>Facilitating interesting worksheets and activities to keep up students' motivation in writing</p>
	Emotional control	<p>Accommodating activity to keep up students' motivation in writing</p> <p>Providing interesting activities to reduce students' anxiety and depression in writing</p>

Table 1 showed information that process oriented approach was implemented to produce argumentative writing for EFL students. It seems that all the process of multidimensional aspects had fulfilled with detail description of activities. First, cognitive aspect deals with course memory and text

processing. In the course memory, that teacher activates students' background knowledge through assessing students' comprehension and vocabulary mastery of topic, overview students' memory, introduce writing strategy, and introduce self-regulation strategy learning kit. In the text processing, the classroom observation data showed that lecturer and EFL students learn critically with analysis, mastery, and problem solving tasks. Second, metacognitive aspect concerns on planning students' idea and goal oriented monitoring and evaluation. On idea planning session, the data of classroom observation was found that both EFL teacher and students were engaged in discussion on writing strategy, self-regulation strategy learning kit, and commitment to write good quality learning outcome. Beside the session, they also focused on customizing self-regulation strategy learning kit based on students' needs, nurturing their routines of using writing, and accommodating students to optimum practice before their writing. Third, socio behaviour aspect covers on peer learning and feedback handling which allow EFL students to collaborate with their mates to produce good writing. In the process of collaboration, the research emphasised on using mobile mediated collaborative writing (MMCW) which means all their needs of classroom activities can be fulfilled with mobile devices (tablets and smart phones). It was found that they started on discussing on classroom topic, suspending on their arguments, using the writing strategy, drafting, revising, evaluating, and submitting as final products of group works. The last aspect is motivational dimension which contain interest enhancement, motivational self-talk, and emotional control. These activities remained on equipping and maintaining EFL students to be ready in the process of writing with the various challenges to produce good writing.

To accommodate students' needs in implementing MMCW in the writing class, EFL teacher conducted dynamic activities as instructional practices in the teaching and learning process which is figured below.

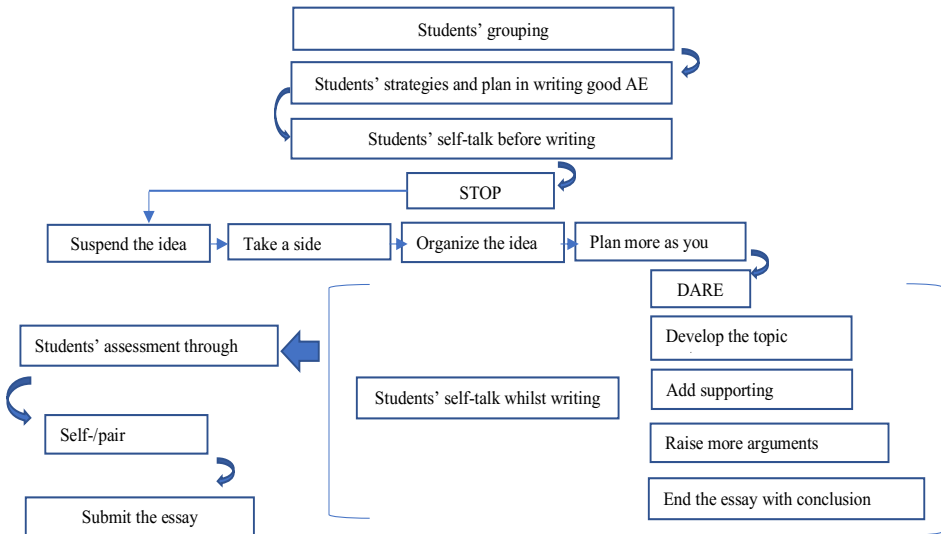




Figure 1. Model of MMCW in SRWA

Figure 1 indicated that the model of MMCW in SRWA focuses on several phases including goal setting, strategies on achieving optimum goal, implementing a plan and monitoring, and evaluation. First, in setting their goals and strategies, EFL students discussed and filled out the worksheet of their plan and strategies in producing high quality of argumentative essay. In addition to the manage their motivation, they affirmed themselves by using self-talk before writing which is provided by teacher. In the implementation process, it was observed that they write collaboratively using worksheet on STOP DARE writing strategies. In suspending their idea, they searched their idea from search engine, journal, and websites, and social media related the topic in pairs. After that, students completed argument’s table on either agreement and disagreement about the provided topic with the supporting details including facts, statistical and research data. After getting their sides of arguments, they organized their arguments into a piece of essay with the structure of DARE paragraph. They were engaged to finish the structure of essay starting from very first beginning paragraph to the end of paragraph. After completing their essay, they checked their works using automatic writing evaluation and then followed by ticking self-assessment rubrics before submitting their works online.

**# RQ2. How are EFL students’ opinions of their new experiences in MMCW practices?**

The research question is pinpointed to answer on EFL students’ experience in MMCW practices during writing class. Based on interview data, we found three parts to be elaborated in the following table.

Table 3. Students’ experience in MMCW practices in SRWA

No	Theme	Subtheme	Interview data
1	Experiences	Pedagogical	Students can share the idea and discuss ideas real time in their virtual worksheet Students give feedback, comments, and revise their collaborative writing through Google Docs Students can interact easily using editing features Students can self-assess their writing using rubrics provided by teacher
		Technological	Students are familiar with mobile mediated application for their writing

Students comprehend how to begin, utilize these platforms to ease their writing  
 Students find their enjoyment of using these platforms during writing process

Table. 3 informed us about students’ experiences on implementing MMCW within the framework of SRWA. The research data found that students’ experience both pedagogical and technological experiences on writing class. In pedagogical experience, EFL students found that they had new experiences on writing process including real time idea sharing and discussion through virtual worksheet. They also used feedback giving, comment and revise their works collaboratively. After producing an essay, they can check their writing with mediation of automatic writing assessment and self-assess their writing through virtual rubrics provided by teacher. Alongside the process, they interacted and communicated written, verbal and using several emoticons to proceed the successful writing product as it is briefly mentioned by interviewee.

**Student 1.** *I am very pleased to operate the features of Google docs in writing collaboratively with my mate. I can interact, discuss, and revise our works although we are in different place. After writing a draft, we check our essay with Grammarly, and revise together. I also happy that my lecturer gave me rubrics for self-assessment which help us reflect the quality of our writing.*

Beside new experiences, EFL students also faced challenges in implementing MMCW in SRWA during the writing process which is classified in the following table.

Table 4. Students’ challenges in MMCW practices in SRWA

No	Theme	Subtheme	Students’ challenges
1	Challenges	Internal	Students’ time management to accomplish all steps in writing process Students feel learning loss due to pandemic Covid-19 so that they need learn everything from the beginning (linguistics, critical thinking, and creativity) Students mental block of writing mindset Students’ survival on the writing process
		External	Lack of internet connection Lack of academic resources Lack of face-to-face teacher’s supervision

The above table highlights on both internal and external challenges found during MMCW implementation. Internally, EFL students found that they have time management, learning loss, awareness, and survival during the learning of writing. Besides, the external challenges covers students’ academic resources and supervision which is assumed beneficially for their improvement of writing which is representatively one of the interviewees below.

**Student 3.** *I felt that I got learning loss due to Covid-19 Pandemic, firstly it was so stressful to hear writing task, but using this framework which my lecturer provides step by step procedures on how to write argumentative essay, it help me very much.*

To cope with their challenges, EFL students seemed to decide their learning strategies in MMCW within SRWA in writing class as seen in the following table.

Table 5. Students’ strategies in MMCW practices in SRWA

No	Theme	Subtheme	Students’ strategies
1	Strategies	Personal	<p>Students ask their mates if they found problems during the process of writing</p> <p>Students watch the video tutorial how to get started on platforms used on learning process</p> <p>Students review their notes on classroom practices</p> <p>Students search the information from academic journal, websites, and academic portal regarding the topic</p>
		Institutional	<p>Students listen and follow teacher’s socialization on how to use mobile mediated platforms</p> <p>Students are asked to attend the professional development provided by teacher</p> <p>Students conducted self-practice as more as possible</p>

The above table emphasizes on the students’ strategies used by EFL students in MMCW implementation within the framework of SRWA. Based on the research data, it was found that they dealt with personal and institutional strategies to solve their problems during teaching and learning process. The personal strategies were found that EFL students initiatively discuss with their mates, watch the video tutorials, and search the detailed information on their learning resources during classroom practices. In the point of view of institutional strategies which is come from their teacher,

it was found that they were instructed to pay attention on teacher's tutorial on using these platforms, watch professional development and self-practice outside the classroom hours.

**Student 2.** *I was struggling on using the features on Google docs in the beginning, but I ask my classmate how to utilize these feature of giving feedback, revise, and put emoticons as well as the comments. And finally I can do that for my writing process.*

#### 4. Discussions

The present study would like to cultivate how EFL teacher provides MMCW in SRWA to promote students' academic writing performance. The model of MMCW is rooted under four phases of self-regulated learning namely set writing goals, plan the strategies how to accomplish the best achievement, implement and monitor the plan, and the evaluate all things done during the writing process. These four phases are actualized from self-regulation strategies from Zimmerman [30] which highlights on foretaught, performance, and evaluation. Concerning on the process-oriented approach in its implementation, it promotes students' peer learning through several instructional learning activities in writing the essay. This is in line with previous study from Latifi et al. [48] which report that EFL students' providing feedback and how to handle feedback which are common activity found during the stages of strategies [49]. Through these all activities, students' self-regulation is improving in teaching and learning process particularly in writing class since they involve effectively in self-talk, goal setting, think aloud, plan the strategies, self-statement.

Moving into the further point, the model of MMCW accommodates students to promote the four dimensions of self-regulation strategies. In the cognitive aspect, it provides opportunity to memorize and contextualize about learnt topic into learners' needs in their collaboration. The research by Teng et al. [50] also report that these strategies can promote students' learning and their awareness on the importance the classroom topic. In addition, the metacognitive aspects support students on how they plan the strategies, monitor, and reflect during the writing process to produce their best version of writing which is also evidenced from the previous studies [51]. Beside these two dimensions, the socio behaviors competence provides opportunities on students learn together, share their idea, feedback acceptance and handling in one mission which is realized through beneficial interaction, communication, and discussion. This corroborates the preliminary research by Ayadi and Onodipe [52] which emphasize that discussion and interaction are two important point to run the writing collaboratively. In motivational regulation strategies, provision of meaningful joint activities [53], attractive and intimate rewarding [54], and motivated strategies are recommended in writing activities run as well as it is committed.

The model of MMCW within the framework of SRWA offers positive insight to EFL students in its implementation. In the teaching and learning process of writing, pedagogical activities influence students' academic performance [55]. By providing relevant SRWA pedagogical instruments into students' needs, which means promote students' cognitive load. In line with previous research finding from Rogers et al [16] which evidenced that pedagogical efforts from teachers actively impact on students' involvement during classroom practices. Beside its role on the students' critical thinking, students' self-regulation strategies are nurtured through these pedagogical activities

which is highly supported from Harris and Graham [13], it was reported that direct instruction of writing strategy assist students with struggling on their writing. Regarding the technological opinions, the flexibility and easiness of offered platforms are the key points to discuss. Flexibility offers students to work the assigned task everywhere with real time connection with their mates. Beside this advantage, the curriculum hour load in face-to-face meeting can be overcome effectively which remain us that writing needs more time to practice than other skills [56]. The friendly used platform of MMCW is also one of the key points in which students' preferences in 21<sup>st</sup> century of encountering all things in easy way [57]. To do so, the model is one of alternative of learning instructional activities to promote their writing class.

Despite its experiences in classroom activities, the challenges and strategies in running the MMCW in SRWA were also discussed. Pertaining the challenges found in the EFL writing classes, linguistics challenges are the main barriers encountered for English as a foreign language students. As it is mentioned by Hidayati [58], linguistic competence is the key issue for EFL students who struggling in writing beside cultural and motivational competences. To overcome the internal challenge, EFL students are recommended to enrich their capacity buildings through several academic activities. Gracia et al. [59] suggest that professional development through digital application can be alternative strategy to fulfill it. Complementing the academic activities, numerous agenda including discussion, tutorial watching, and lecturer supervision are the optional practices to do so in solving the mentioned challenge. As well as external challenge found which is mostly on internet connection problems, Zhang and Wu [60] also reported that learning climate is the crucial issue to solved for gaining effective learning. To overcome, EFL students dealt with strategies on how they mitigate this issue to run effective learning.

## 5. Conclusion and Recommendations

The study have to led two key points on the model MMCW in SRWA to empower students' self-regulated learning in writing and EFL students' opinions about new experiences on MMCW implementation to promote their academic writing. Pertaining to the model MMCW in SRWA, its implementation promote students' self-regulation learning in writing though the process-based approach. By pedagogical instructions offered, EFL students are enabled to empower their writing skill concurrently with self-regulation strategies. Alongside these instructions, the virtual learning kit is also equipped to ease students in running MMCW within SRWA from the preparation, implementation and evaluation.

Gaining new experiences into MMCW in SRWA implementation, EFL students give positive opinions in classroom practices as well as challenges and strategies used which is elaborated for future research. The output of current study is only focused on the monomodal writing, whereas the global needs of collaborative writing is multimodal writing, so the future researchers are recommended to tackle comparative study on this potential idea. The idea of showing model of MMCW is the attractive issue to discuss, yet the upcoming study highlights on the best practice on how to create the addressed model and learning kit to equip other educators in every level of educations.

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