

Secondary School EFL Teachers' Knowledge of Self-Regulated Learning (SRL)

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ARTICLE INFORMATION

Article History:

Accepted: 11-04-2023
Approved: 17-07-2023

Keywords:

*Self-regulated learning;
Teachers' knowledge of SRL;
Teachers' practices of SRL*

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ABSTRACT

Self-regulated learning (SRL) is an important skill to acquire for students because it helps students to have a better academic achievement, study skills, self-efficacy, and learning motivation in a learning process. Teachers are required to have high level of knowledge about SRL to be able to teach SRL to their students. Thus, this study was aimed to examine teachers' knowledge of SRL. This study employed a quantitative method using survey design involving 42 EFL teachers from junior and secondary schools in two districts in Gresik Regency. A knowledge test to measure teachers' content knowledge of SRL (SK-SRL) and pedagogical content knowledge of SRL (PCK-SRL) was administered to collect the data. The result of this study showed that EFL teachers hold a moderate level of knowledge of SRL. This means that EFL teachers understand the general concept of SRL, various types of SRL strategies such as cognitive, metacognitive, and motivation as well as emotion strategies. Moreover, teachers also understood about the three-cyclical phases of SRL which were the forethought, monitoring, and evaluation phase as well as various activities in each phase. However, they still need more insight about how to diagnose students' SRL competence and skills, and need to explore more various ways to teach SRL to their students.

The Recently, the Indonesia Ministry of Education and Culture (MOEC) has decided to implement *Merdeka Belajar* curriculum. The term '*merdeka*' which literally means 'independent' is in line with the implementation of this new curriculum in which teachers and students are 'independent' or 'more flexible' in conducting the learning process. Nugroho and Narawaty (2022) summarized some essential changes of the new curriculum are: (1) the use of project-based learning to develop students' soft-skills and students' characters that were in line with *Pelajar Pancasila*'s characters; (2) the use of learning materials which are simplified to make students focus on the basic competences; and (3) The learning and teaching process becomes more flexible which enable teachers to conduct a situated-learning based on the learning environments. The government believes that it will lead to a more effective and efficient learning process since both teachers and students are required to be aware of students' needs and interest in conducting the learning and teaching process.

Merdeka Belajar Curriculum was aimed to solve the 'massive learning loss' that were experienced by many students in the world including Indonesia due to the sudden learning shift during Covid-19 Pandemic Era. The learning loss itself refers to the decrease of students' academic progress including students' knowledge and skills (Pier et al., 2021). In line with this situation, the new curriculum merges and simplifies the learning materials so that students can focus on learning materials that were essential, and in the same time, they were able to learn the basic competences deeper as well as recover their learning loss.

Merdeka Belajar curriculum also brings a new perspective regarding how the students become the center of the learning process and focuses on students' independence as well as their responsibility in their own learning. For instance, aside from some mandatory learning subjects that have been settled, students were able to choose only the learning subjects they were interested in among the optional subjects ("Kurikulum Merdeka," n.d.). This is clear that students need to possess high academic awareness to decide which learning subjects that suit them. Consequently, this also leads to the changes of the teachers' role during the learning process, from the instructor to facilitator. In line with this, project based-learning becomes one of some teaching methods that are recommended by the government to be applied in the classroom. Project-based learning refers to the teaching methods where students will be engaged in a project. By using this method, students were asked to continuously plan, employ, and evaluate their own strategies and steps to accomplish the projects.

The students' centeredness, in fact, has been sounded in the prior curriculum. Although, in the real situation, there are still many cases where teachers still dominate the learning process (Imaduddin, Zuhaida, & Hidayah, 2019; Kholisho & Marfuatun, 2018; Yulia, Wahyoedi, & Saptop, 2019). The new curriculum brings the promising concept to solve the students' centeredness

issues that have been existing for a long time. For instance, in this new curriculum, teachers were required to focus on the students' process and progress in accomplishing the project, not only focusing on the final outcomes. This is surely decreasing students' pressure during the learning process. Instead of worrying about the final scores, they can focus on acquiring the basic competences and essential skills.

Conducting a learning process that promotes students' centeredness requires effective strategies. Even though this term seems like a new term, the concept of students' centeredness has been acknowledged and somehow overlaps with other terms used in other countries. One of them is self-regulation. Self-regulation was first coined by Zimmerman (2000) as "the thoughts, feelings and actions produced by someone who has been systematically planned and adjusted to the achievement of his personal goals." Even some researchers such as (Ramadina, 2021) use the term 'self-regulated curriculum' interchangeably with '*Merdeka Belajar curriculum*'. In the academic field, self-regulation is more well-known as self-regulated learning.

SRL strategies were divided into three main strategies by namely cognitive strategies, metacognitive strategies, and emotional and motivational strategies. This was proposed by Boekaerts (1999) and was well-known as three-layers strategies in SRL. Cognitive strategies, the first strategy, refer to the strategies that support students in processing and memorizing new information. For example, rehearsal strategies, elaboration strategies, and organizational strategies. In using rehearsal strategies, students are asked to repeat, copy, or note the new information. Meanwhile, elaboration strategies refer to the way students connect previous knowledge with the new knowledge they've just learned. In addition, organizational strategies enable students to organize and systemize new information such as mind mapping. Next, the second strategy namely metacognitive strategies, deal with the strategies that control cognitive strategies. In other words, this strategy defines if the implementation of cognitive strategies will be successful or not. Thus, this strategy is aimed to enhance the quality of the learning as a whole. This strategy might be applied in the whole phases of learning including planning, monitoring, and evaluating. In the planning phase, students were asked to set their academic goals. This means that students will be required to have their academic awareness. They need to be aware of what they want to achieve and what the activities that they will do to achieve their goals. The last strategy is emotional and motivational strategies. This strategy will be helpful for the students to manage their emotions and motivation. During learning, students will experience a variety of emotions both positive and negative. The negative emotion potentially decreases students' motivation to learn. In contrast, the positive emotion will enhance students' motivation to learn.

By using these various SRL strategies, it seems plausible to assist students during the learning process, especially where the *Merdeka Belajar* curriculum is implemented. Students can improve their study skills so that they do not only understand the basic materials, but also achieve some good characteristics of *Pelajar Pancasila*. The four characteristics of *Pelajar Pancasila* Profile that suit with the concept of SRL are *gotong royong* (cooperation), *mandiri* (autonomy), *bernalar kritis* (critical thinking), and kreatif (creativity). These have been revealed by previous studies that students who apply SRL strategies tend to be able to cooperate with other students (Zhong et al., 2022), to think critically (Wu & Wu, 2020), to be an autonomous learner (Wijaya, 2022), and to be creative (Harwood & Koyama, 2020). In line with this, Fathi et al. (2019) reported that the use of self-assessment and peer assessment, one of metacognitive strategies, tends to make students more independent in the learning process. They are able to evaluate what lacks from their learning, and what solution for their improvement. In the same tone, Wu and Wu (2020) reported that the use of one cognitive skill, such as mind-mapping, is also really effective in improving students' critical thinking. Therefore, acquiring SRL skills is important to help students during the learning in improving their study skills, their understanding of their subject material, and their characteristics of *Pelajar Pancasila*.

Teachers can assist their students to use SRL strategies during the learning process. Many students still face difficulties to employ these SRL strategies well. For instance, students still lacked of competence that made them confused in setting a goal, creating a plan to achieve the goal, and managing their time (Zhang, 2019). In the same way, students also lacked interest in using SRL strategies even though they know the strategies and know how to use them. For instance, even though students understand that seeking help from friends and teachers need to be done when they do not understand during the learning process, they are still reluctant to work cooperatively with mates or to ask their teachers (Fentaye, 2017).

Considering these students' difficulties and how SRL provides promising benefits toward the learning outcomes for students, self-regulated learning needs to be actively challenged and promoted in the classroom by teachers. Prior researchers (Paris & Newman, 1990; Perry & Vandekamp, 2000; Pressley & Harris, 2009), had highlighted that guiding students to construct learning strategies is essential to be done. Paris and Newman (1990) also claimed that even though students are able to develop their learning strategies through experiences, the construction of strategies need to be guided. In this case, teachers are those that can assist students to achieve SRL skill and competence since teachers have the closest interaction to students in the classroom. In the other word, teachers have a significant role to improve students' learning strategies and help them to overcome their difficulties in applying the SRL strategies.

Related to the fact that SRL strategies are promising in helping students during learning and teaching process, teachers require sufficient knowledge of SRL. This was supported by some researchers (i.e. Dignath & Ewijk, 2016; Dignath & Sprenger, 2020; Karlen, Hertel, & Hirt, 2020) reporting that teachers' knowledge is significantly related to the teachers' promotion of SRL. Moreover, based on the theoretical framework of language teachers' cognition, it is stated that teacher's practices was related to

the teachers' knowledge. This implies that teachers who have more knowledge about SRL tend to implement more SRL practices in the classroom. Having sufficient SRL knowledge is important for teachers since the more SRL knowledge that teachers have, the more exposure they can give to students. Even though students could learn and improve their own autonomy, teachers' assistance will make it more effective and efficient.

Moreover, the knowledge of SRL does not only cover various SRL strategies, but also the concept of cyclical phases in the learning process, and the ways to promote self-regulated learning. In this study, the teachers' knowledge of SRL consists of two aspects introduced by (Karlen et al., 2020) which consisted of: (1) content knowledge of SRL (CK-SRL), and (2) pedagogical content knowledge of SRL (PCK-SRL). The first aspect measures teachers' knowledge as self-regulated learners. Teachers who have experiences as a self-regulated learner will understand more about what their students need, the difficulties that students often face, and which strategies are the most effective to assist their students. Meanwhile, the second aspect measures teachers' knowledge as the agent of SRL. Pedagogical content knowledge of SRL gives teachers insight into effective ways to deliver SRL strategies to students. Therefore, having a high extent of CK-SRL and PCK-SRL is important for teachers in assisting their students to acquire SRL competences and skills.

However, compared to research about the promotion of SRL strategies by teachers which have been conducted by many researchers, there were fewer studies that examine teachers' knowledge of self-regulated learning. The studies were conducted by Dignath and Büttner (2018), Dignath and Ewijk (2016), Karlen et al. (2020), Soliman and Alenazi (2017), as well as Wilson and Bai (2010). Moreover, these existing few studies examine teachers' knowledge specifically to one aspect of CK-SRL. For instance, studies conducted by Soliman and Alenazi (2017), and Wilson and Bai (2010) focused on teachers' CK-SRL. In contrast, some other studies (Buzza et al., 2013; Dignath & Ewijk, 2016; Dignath & Büttner, 2018) focused on teachers' PCK-SRL. Thus, this present study examined teachers' knowledge of SRL by involving two aspects of teachers' knowledge which are teachers' CK-SRL and teachers' PCK-SRL. Moreover, the existing previous mostly used qualitative methods to gather data of teachers' knowledge except study conducted by Karlen et al. (2020). They used interviews with open-ended questions to assess teachers' knowledge of SRL. Consequently, this technique tends to make teachers omit some aspects of the knowledge that they are not aware of. Considering this issue, this present study used a quantitative method where teachers' knowledge was assessed using a test that was developed based on two aspects of knowledge of SRL so that it will be clear if teachers know about the aspect. In addition, as knowledge is supposed to be explicit and have a higher epistemic status by being more justifiable when compared to beliefs (Fenstermacher et al., 2015), assessing teachers' knowledge using tests is a good idea to avoid biases between teachers' belief and teachers' knowledge. Moreover, none of the previous studies mentioned before engaged EFL teachers as the participants. Considering gap of the previous mentioned before, the research questions of this study was (1) What is the level of EFL teachers' knowledge of Self-Regulated Learning?

This study was expected to give some contributions theoretically. First, theoretically, this study was supposed to add more empirical studies about the current level of teachers' knowledge of SRL in the different settings, participants, and methods. Moreover, the instrument to investigate EFL teachers' knowledge of SRL has been successfully developed that can be used by future researchers that share the similar objectives. On the other hand, practically this study was expected to be increase teachers' awareness regarding their roles as the agent of SRL and do self-evaluation right after participating in this research.

METHODS

The method of this study was a quantitative method which is survey research design. The participants of this study were 42 English teachers from Junior and Secondary schools in two districts, Gresik Regency, East Java. Stratified random sampling was used to select the participants. since there were imbalanced numbers of junior and secondary schools in these two districts according to the data in MOEC. Thus, the participants were twenty-one English teachers from junior schools and twenty-one English teachers in Secondary schools. All participants in this study have given their consent to participate in this study, and agreement from some institutional review boards of teachers' affiliation.

Teachers' knowledge of self-regulated learning was assessed using a knowledge test. The tests were spread to teachers using Google form link. The test was developed with multiple-choice tasks, each with a short item stem, multiple options (three to four answer options), and one correct answer. The format of the test was adapted from Karlen et al. (2020) which test was aimed to find out teachers' explicit knowledge about SRL. The test covered two types of teachers' knowledge of SRL; (1) CK-SRL, and (2) PCK-SRL. The knowledge test of SRL consisted of 45 items in total. 29 items covered CK-SRL, and 16 items covered PCK-SRL. The distributions of the test items are shown in Table 1.

Table 1. The Distributions of the Test Items

Variable	Aspects	Indicators	Total of items	No. of Questions
Teachers' Knowledge of SRL	Content Knowledge of SRL (CK-SRL)	General understanding of SRL	2	1,2
		Three cyclical phases of SRL	8	3, 4, 5, 6, 7, 8, 9, 10
		Three layers of SRL strategies	19	11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29
	Pedagogical Content Knowledge of SRL (PCK-SRL)	Ways to teach SRL	3	30, 31, 32
		Assessment of students' SRL	13	33, 34, 35, 36, 37, 37, 38, 39, 40, 41, 42, 43, 44, 45
Total			45	

The researcher used Bahasa Indonesia as teachers' first language for both questionnaires and knowledge tests to avoid misunderstanding and to make sure that all participants understood the questions well and delivered their answers well.

The instrument used in this study had been tested its validity and reliability. Inter-rater validity and pilot testing was used. Then, the reliability had also been tested using KR20 to measure the internal consistency of each test item. The results showed that the instrument was valid and reliable to be used. The data of the knowledge test was analyzed by scoring the total questions answered correctly. The correct answers were based on SRL theories. The level for each variable was divided into three categories which were high, medium, and low.

Results

Table 2. Teachers' Knowledge of SRL

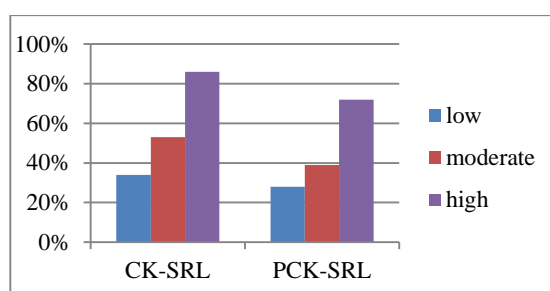
		Descriptive		
		Statistic	Std. Error	
Knowledge of SRL	Mean	187.36	6.678	
	Median	186.00		
	Variance	1873.260		
	Std. Deviation	43.281		
	Minimum	113		
	Maximum	269		
	Range	156		

According to the descriptive analyses for teachers' knowledge in Table III, the teachers' knowledge of SRL ranged from low to high level of knowledge of SRL ($M = 26.19$, $SD = 8.617$, range: 14-42). Furthermore, the results of teachers' knowledge of SRL were shown in Table 3. below:

Table 3. Test Results of Teachers' Knowledge about SRL

No	Interval	Frequencies	Percentage	Criteria
1	31-45	13	31%	High
2	16-30	27	64%	Moderate
3	0-15	2	5%	Low
Total		42	100%	

As shown in Table 3, 31% participants achieved a high level of knowledge of SRL. Moreover, 64% participants were in moderate level, and 5% were categorized as low level of knowledge of SRL. From the total 42 EFL teachers, most of them were categorized as having moderate level knowledge of SRL. Therefore, the majority of the EFL teachers' knowledge of SRL in two districts in Gresik were in the moderate level. Moreover, the result of teachers' knowledge if it was seen from these two aspects of teachers' knowledge of SRL was shown in Charts 1.

Charts 1. Aspects of Teachers' Knowledge of SRL

Based on Chart 1, mostly teachers answered questions about CK-SRL correctly more than questions about PCK-SRL. Based on the chart, teachers categorized as having a high level of knowledge test answered 86% of total questions about CK-SRL correctly. This was greater than the number of correct answers of questions about PCK-SRL which was 78%. Similarly, teachers with moderate levels of knowledge also answered 53% of total questions about CK-SRL correctly, higher than the number of correct answers about PCK-SRL which was 39%. Lastly, teachers that achieved the low scores of the knowledge test also achieved scores of CK-SRL questions 34%, greater than the score for PCK-SRL which was 28%. These results inferred that the majority of teachers knew more about content-knowledge of SRL rather than pedagogical knowledge of SRL.

DISCUSSIONS

Based on the result of the research question, it showed that EFL teachers in two districts in Gresik had various levels of knowledge about SRL, from low to high level of knowledge of SRL. The discussion sections in this study were divided into some parts to discuss further about the result this present study

Teachers Content Knowledge of SRL (CK-SRL)

The teachers with moderate level of knowledge of SRL showed that they were successful in answering half of the total questions about content knowledge of SRL (CK-SRL), one aspect of knowledge of SRL, correctly. Karlen et al. (2020) claimed that CK-SRL was the teachers' knowledge by positioning themselves as a self-regulated learner. This implied that most of the teachers in this study had experiences as a self-regulated learner. Boekaerts (1999) stated that a self-regulated learner, firstly, needed to be able to define and conceptualize SRL correctly. This was important since the wrong conceptualization might lead to the wrong implementation of SRL. For instance, teachers who conceptualized SRL as the self-directedness or the students' autonomy tended to identify a self-regulated learner as the student who did every process by themselves. Instead Boekaerts and Cascallar (2006) claimed that in the concept of SRL, the students were asked to be able to seek help from their peers, their teachers, or other resources whenever they faced difficulty. In this present study, teachers show the correct conceptualization of SRL since they defined SRL as a learning process where teachers help students to learn how to learn effectively and efficiently. This is different from what Dignath and Sprenger (2020) reported that teachers tend to associate SRL with students' self-directed learning, students' autonomy, or students' achievement. This implies teachers with a medium knowledge level of SRL see learning as process oriented, not goal oriented. This is significant since teachers and students can focus on improving the quality of the learning process as a whole. Moreover, EFL teachers correctly pointed out the aim of SRL which was to help students to plan, monitor, and evaluate their own learning.

Second, the teachers who had knowledge about CK-SRL were aware of the three-layers strategies of SRL which were cognitive strategies, metacognitive strategies and emotional and motivational strategies. Consequently, by understanding the three-layers strategies; the teachers had more alternatives in helping students to self-regulate their learning. This was crucial considering there were some studies, (i.e. Dignath & Büttner, 2018; Dignath & Sprenger, 2020) reported that many teachers mentioned only one strategy when they were asked about SRL, which was mainly about cognitive strategies. In fact, during the learning process, students were not only supposed to enhance their cognition, but also their metacognition, emotion, and motivation. Therefore, the teachers' correct answer about these three learning strategies was undoubtedly another evidence that the teachers know which strategy improves which aspect of students. For instance, when teachers ask students to do some activities such as mind-mapping, taking notes, and summarizing, they were aware that these activities were intended to improve students' skills in receiving and organizing new information. In the other word, teachers know that these activities might enhance students' cognitive skills. Similarly, teachers could recognize some activities that were expected to improve students' metacognition such as asking students to prepare the materials for the next meeting, giving students a chance to do self-evaluation, peer-assessment, etc. Metacognitive strategies were the most significant strategies in SRL. That teachers could recognize which activities belong to this strategy implies that teachers possessed moderate knowledge of SRL.

Beside understanding about three layers strategies of SRL, understanding about cyclical phases of SRL was the last indicator of teachers' knowledge based on CK-SRL aspect. Zimmerman in 2000 stated that understanding about three cyclical phases was essential in learning self-regulation. This suggested that the teachers in this present study needed to be aware that the learning process is not a single phase, when teachers meet students to explain the materials. Instead, it consists of three phases which are forethought phase, monitoring phase, and evaluation phase, where each phase is equally significant for students. Forethought happened before the learning process. The activities which belong to this phase are setting short-term and long-term goals, preparing the questions from the previous materials, reading the upcoming materials, and so on. The goal of this phase is to make students were able to know their orientation, the aims they will reach, and what activities they need to do to achieve those aims. Meanwhile, in the monitoring phase, students implemented the plan they had made in the forethought phase. In the same time, they need to monitor the implementation of their plan, whether the plan goes as expected. If there was something unexpected happened, students need to be able to decide the alternative of the other plan or other learning strategies that was more effective. For instance, teachers have given students to prepare themselves for a presentation. During the presentation, if the students who present were nervous, teachers might instruct the other students to cheer or motivate them so they could lessen their nervousness. This condition is the example of how teachers need to know various SRL strategies so that they could help their students in every phase. Teachers in this study could differentiate which SRL strategies need to be applied in which phase. In the forethought phase, students need to employ metacognitive strategies. Then, in the monitoring phase, students could employ cognitive, metacognitive strategies, emotional, and motivational strategies. Lastly, in the evaluation phase, where they evaluate what needs to be solved and improve for the next meeting in the evaluation phase, students were expected to use metacognitive, emotional, and motivational strategies.

Teachers' Pedagogical Content Knowledge of SRL (PCK-SRL)

It was similar to the teachers' CK-SRL, teachers' Pedagogical Content Knowledge of SRL (PCK-SRL) as the second aspect of knowledge of SRL was also assessed based on some indicators; (1) the ways to teach SRL, and (2) the ways to assess students' SRL. The results in the present study, unfortunately, showed that the teachers still needed more insight about PCK-SRL. They answered that SRL needed to be induced directly and indirectly. However, they tend to understand only about the indirect way to foster students' SRL which were by engaging students in a constructive learning environment where students will use the SRL strategies without being aware that they were using SRL strategies. Meanwhile, direct ways refer to the situation where teachers instruct students to use SRL strategies as well as explaining to them the name of the strategies, the benefits, and how to use them. Teachers in the present study only choose some activities that were categorized as indirect ways of teaching SRL. This shows the inconsistency between teachers' knowledge and belief. The similar situation was found in the previous study conducted by Lawson et al. (2019) reporting that teachers still believed that SRL was not teachable. This is in contrast to a study conducted by Dignath and Veenman (2021) reporting that direct promotion was as significant as indirect promotion in enhancing students' academic achievement. Therefore, teachers in this study need to explore more about direct ways of teaching SRL to students. As Paris and Paris (2001) claimed that direct ways and indirect ways need to be combined because the direct ways are too abstract for students, and indirect ways might constrain students too much.

Additionally, the present study also reported that teachers lack understanding about how to assess students' SRL competence and skills. There are some situations in which teachers have limited knowledge of this aspect. First, teachers have no idea how to differentiate between students who have high skills of SRL and those who still experience difficulties in employing SRL strategies. Teachers still rely on cues that were not diagnostic such as students' disengagement, students' low scores of assignments. This was in contrast to the SRL theory proposed by Dignath and Sprenger (2020) that the cues to diagnose students' level of SRL was the absence of SRL phase, and the implementation of the SRL strategies done by students. Second, teachers have no idea how to get the diagnostic cues. Their misunderstanding regarding the diagnostic cues, lead to the wrong ways of assessing students' SRL. For instance, since teachers think that students' academic achievement reflects their SRL, teachers choose 'collecting students' scores as the example of activities to assess students' SRL. This was different from what Karlen et al. (2020) claimed that teachers should conduct reflective talk, instruct students to write learning journals, or observe the absence of students' SRL phases as the way to get the cues of students' SRL skills and competences. The result of this study is the same as previous studies (i.e. Chen & Jang, 2019; Michalsky, 2017). Both previous studies reported that there were only a few teachers who tended to reveal knowledge about assessment tools to assess students' SRL skills. Based on this result, it is suggested that the EFL teachers needed more assistance in enhancing their pedagogical knowledge of SRL.

EFL Teachers' Knowledge of SRL

Considering the result of this study about the teachers' knowledge of SRL, there were some existing studies that were relevant to the present study since it shared the similar results with the present study. For instance, Karlen et al. (2020) explained

that the teachers participating in their study held knowledge of SRL in various levels where the moderate level was shown by the majority of the participants. In the same year, Dignath and Sprenger (2020) reported that the teachers had adequate knowledge about the concept of SRL, but they lacked knowledge about assessing students' SRL. These two studies used the same area of regulation in which they divided the teachers' knowledge into two types, CK-SRL and PCK-SRL. Furthermore, some previous studies also indicated that the teachers had moderate levels of knowledge, but the aspect of knowledge and the instruments used are different. For instance Barr and Williams (2019) reported that the teachers' knowledge improved after they were facilitated to have a group discussion with other teachers discussing SRL. Even though they did not categorize the teachers' knowledge, the result was similar to the moderate level of knowledge in this study. Their results indicated that the teachers were neither lacking SRL knowledge since they got intervention, nor they possessed the high level of SRL since they still needed more improvement. Despite the similarity among the results from the previous studies, almost all of them were conducted other than in the Indonesian EFL context. Therefore, the result of this study was supposed to add more studies about the current teachers' knowledge of SRL in the Indonesian EFL context.

On the other hand, some previous studies were relevant since it reported the different results with this study, in which teachers lacked knowledge of SRL. For instance, Callan and Shim (2019) reported that eighty-four percent of the participants in this study, only addressed one of the SRL processes. In addition, the teachers used cues that were not diagnostic in assessing students' SRL such as students' low scores, rather than the absence of the SRL process. Similarly, Dignath and Büttner (2018) also reported that the teachers in their study demonstrated the lack of knowledge about three layers strategies. Even though these two previous studies and also other studies (i.e. Lawson et al., 2019; Soliman & Alenazi, 2017) Thus, this explained why the previous studies had different results. Moreover, it should be taken into account that the instruments used in this study were the multiple-choice questions in which it examined the teachers' explicit knowledge about SRL in general. Therefore, the results of the level of teachers' knowledge of SRL collected using different types of instruments and different aspects as well as different indicators might lead to the different results as well.

Furthermore, there are some aspects in both teachers' content knowledge and teachers' pedagogical content knowledge of SRL overlapped with the aspects in *Merdeka Belajar* Curriculum. The first similarity is the use of three layers of strategies to enhance students' learning quality. As project-based learning is the most-applied teaching method in the classroom in *Merdeka Belajar* curriculum, teachers can use the three-layers SRL strategies to enhance students' learning skills and other soft skills. Self-regulated learning provides more learning strategies to help students during learning, not only cognitive strategies that have been implemented by most teachers, but also metacognitive strategies, and emotional and motivational strategies. There has been a lot of research reported that teachers taught their students with cognitive strategies such as mind-mapping (Wu & Wu, 2020), questioning (Zulfikar et al., 2022), storytelling (Silviyanti et al., 2022), note-taking (Ismail & Fata, 2021), and so on. However, that there was less research reporting teachers' implementation of metacognitive strategies as well as emotional and motivational strategies implied that there were less teachers who lacked knowledge and practices of these two strategies. In fact, students also need assistance in dealing with their emotion, motivation, and their metacognition during learning. There it is important for teachers to know about these three layers SRL strategies in implementing *Merdeka Belajar* curriculum.

The second similarity is the need to acquire more basic competences other than literacy competencies such as six characteristics of *Pelajar Pancasila* that students need to internalize. Some characteristics that have been addressed in SRL are *gotong royong* (cooperative), *mandiri* (autonomous), *bernalarnya kritis* (critical thinking), and *kreatif* (creative). These characteristics had been reported by a lot of researchers who examined the benefits of the implementation of self-regulated learning strategies. Unfortunately, the main challenges for the implementation of SRL is that it was rarely supported by the curriculum used in school. Consequently, teachers didn't spare their time to teach SRL to their students as much as they taught the main learning materials. Moreover, teachers are also lacking of SRL knowledge, and even they still had misbelief that SRL was not teachable. However, the implementation of *Merdeka Belajar* Curriculum addressed this issue through the six characteristics that are obliged to be achieved by students. In addition, the simplified learning materials creates more time for teachers to also focus on their students' good characteristics, and the quality of their learning.

The third aspect of teachers' knowledge of SRL which supports the implementation of *Merdeka Belajar* curriculum is the three-cyclical phases in learning. They are the forethought phase, monitoring phase, and evaluation phase. Students need to be aware of these cyclical phases, so they enhance their autonomy and independence which is one of the characteristics of *Pelajar Pancasila* in *Merdeka Belajar* curriculum. Teachers who have knowledge about the three-cyclical phases tend to engage their students in activities that require them to plan, monitor, and evaluate their own learning. Moreover, teachers also could help students to decide which SRL strategies best suit each phase. For instance, students were asked to monitor their learning process during the monitoring phase. In this phase students could employ various cognitive strategies to help them process the learning materials. When something unexpected happened such as students having difficulties in finishing their tasks, teachers could direct students to use metacognitive strategies such as seeking help, and so on.

The result of this study in which teachers possessed moderate to high level knowledge of self-regulated learning became the consideration for teachers, educators, researchers, and the government in the implementation of *Merdeka Belajar* curriculum.

Moreover, as it was reported by Sholahuddin (2022) that 271 schools in Gresik had implemented Kurikulum Merdeka, there is a huge need to assist them in implementing *Merdeka Belajar* curriculum. Thus, this study is supposed to increase teachers' awareness to continuously improve their teaching and learning quality and evaluate their competences and teaching practices. For the future researcher with the same interest, this study was supposed to become their consideration in designing intervention, building group discussion, and facilitating teachers in improving their knowledge and practices of self-regulated learning in their classroom.

CONCLUSIONS

Based on the results and discussion of this study, the majority of EFL teachers in two districts in Gresik Regency hold moderate levels of knowledge about SRL. The moderate level met the researcher's expectation since most of the teachers participating in this study implemented *Merdeka Belajar* curriculum. This might explain the result of this study since the Indonesian government has prepared more chances for teachers to join in training, workshops, and group forums that enabled them to increase their awareness of students-centeredness in the classroom. In addition, since *Merdeka Belajar* curriculum was just launched in February 2022, teachers still adapted to this new curriculum which related to the teachers' moderate level of knowledge of SRL. The moderate level of teachers' knowledge of SRL implied that teachers had been in the process of adaptation. Furthermore, this moderate level is good news since the higher level of teachers' knowledge, the more reluctant teachers study. In contrast, the lower level of SRL knowledge will make teachers not able to teach SRL effectively to students. Therefore, the moderate level of teachers' knowledge in this study indicated that teachers actively and continuously enhanced their SRL competences and skills.

The first recommendation is for teachers especially EFL teachers. This research is supposed to increase teachers' awareness regarding their role in improving students' SRL. Teaching students how to learn is as essential as teaching students what to learn. In EFL context, teaching students SRL strategies enable students to self-regulate their own learning. When EFL students are successfully acquiring SRL skills, they can select their own learning materials, manage their motivation during learning language, use strategies to storage and use the new vocabularies, seek for a help when they get difficulties during learning, etc. The moderate level of teachers' knowledge of SRL suggest future researchers to include interventions such as group discussions, workshop, etc. Moreover, regarding the limitation of this study suggest, future researchers should investigate teachers' SRL knowledge beyond teachers' self-report, for example, using classroom observation.

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