Journal of English Education and Teaching (JEET)
e-ISSN: 2622-5867
p-ISSN: 2685-743x
Volume 6 number 4, 2022
Page 555-577

Indonesian Teachers' Self-Regulation, Their Self-Concept of Competence and Satisfaction in Teaching

Rachelina Larasati
Sanata Dharma University
rachelinalarasati@gmail.com
Paulus Kuswandono
Sanata Dharma University
kus@usd.ac.id
Corresponding email: rachelinalarasati@gmail.com

Abstract

It has been acknowledged in the literature that a good self-concept of teachers will enable teachers to adapt to changing situations, which might result in effective teaching that will benefit students. On the contrary, negative self-concept results in teachers' burnout and inability to perform well in teaching. This mixed-methods study aims to investigate whether teacher self-concept can be enhanced by the implementation of self-regulation strategies. Two research questions are formulated in this study: (1) To what extent do Indonesian teachers implement self-regulation in their teaching? (2) What is the correlation between teachers' self-regulation and the concept of their competency and satisfaction in teaching? In the quantitative phase, sixty teachers from different parts of Indonesia participated in the study by completing an online questionnaire. The data gathered was submitted to the SPSS and was analyzed using the Pearson correlation method. The result showed that there were positive correlations between teacher self-regulation and teacher self-concept of competence with r=.381 and satisfaction with r=.372. To gain a deeper understanding, in the qualitative phase, interviews were done with three of the teachers. The data resulted that teachers have highly implemented teacher self-regulation and affirmed that it has contributed to the enhancement of their self-concept of competence and satisfaction.

Keywords: correlational study, mix-method, teacher self-concept, teacher self-regulation

Introduction

With the complexity of the teaching profession, teachers are expected to be adaptable to new roles and to evolve with various skills. In doing that, teachers need to regulate themselves to be able to reach their maximum capacity of being a teacher so that they can achieve their goals in their teaching. Zimmerman et al. (1996)

promote self-regulated learning as one's ability to manage and control their thoughts, feelings, and actions to achieve a particular educational goal. Hence, self-regulation enables teachers to become individuals who can navigate their thoughts, feelings, and actions to achieve their goals. Self-regulated teachers consider good teaching strategies to be implemented in their classes which will enable them to administer students' engagement and also their sense of self-concept (Han, 2021). The high demands of adaptation might negatively affect teachers' self-concept. Prasojo et al. (2020) discover teacher self-concept as the direct cause of teachers' burnout. Burnout causes emotional exhaustion (being emotionally drained), depersonalization (being negatively detached from others), and reduced personal accomplishment (the feeling of being incompetent) (Maslach et al., 2018). The indication of teacher burnout is the inability to cooperate well with co-workers or students and the inability to cope with their work and responsibility. To avoid this, it is overly critical for teachers to have a good self-concept.

Teacher self-concept is teachers' self-perception of what they believe they have or do not have in particular domains (Zhu et al., 2018). Studies have found that the negative self-concept of teachers leads to their burnout (Prasojo et al., 2020b; Zhu et al., 2018) . Sampthirao (2016) defines self-concept as the way one perceives himself that is affected by his interaction with the environment. The perception and action of oneself are reciprocal to one another. Self-perception influences one's actions. Conversely, one's action affects the way one perceives himself. Correspondingly, teachers' self-concept is the teacher's perception of themselves as a teacher. When a teacher has a good teacher self-concept, he values his teaching and appreciates his teaching effectiveness. Developing teacher self-concept is important as it affects teachers' well-being as well as the teaching outcomes (Han, 2021).

Villa & Calvete (2001) proposed six dimensions of the professional self-perception of teachers: Competence, Interpersonal Perceptions, Satisfaction, Risk and Initiative, Self-Acceptance, and Relations with Pupils. But in this study researchers will only focus on the competence and satisfaction dimensions. Teacher competence is teacher's capacity to perform at the desired level. The effectiveness of classroom instruction is influenced by teachers' competence, which in turn influence students' interest and learning results (Baier et al., 2019; Fauth et al., 2019; Karlen et al., 2020). Competent teachers show satisfactory performance in different specific situations. Teachers' perception of their competence is significant because it determines their

confidence and effectiveness in the classroom. It helps a teacher to see themselves as valuable persons who can solve problems and complete tasks. On the other hand, satisfaction is a teacher's feeling of success in their role as a teacher. Teachers who are satisfied with their teaching tend to persevere and continue their teaching profession (Toropova et al., 2021; Pedditzi et al., 2021). Teachers' level of satisfaction is directly linked to their as well as students' well-being. In other words, teachers' dissatisfaction causes burn out which negatively impacts the students.

To avoid negative self-concept, teachers must be able to perform well despite the changing task and environmental demands. One of the ways that can help teachers to perform well at their job is by implementing self-regulation. Self-regulation is a set of processes that includes a phase of thinking and planning out in advance, which is called the *forethought phase*; a phase of performing an action or reacting to stimuli, which is called the *performance phase*, and a phase of contemplating on the action that has been done, which is called *self-reflection phase* (Usher & Schunk, 2019). According to Pazhoman & Sarkhosh (2019), self-regulation is essential for teachers in making decisions. Self-regulated teachers are aware of themselves and the situations that they are in. Therefore, they can make the right decisions to perform well.

Numbers of research across the globe and particularly in Indonesia have been implemented to find the effectiveness of self-regulation learning in students (Sun et al., 2018; Dörrenbächer & Perels, 2016; Fauzi & Widjajanti, 2018; Mbato & Cendra, 2019). The findings show that self-regulated learners are better at monitoring and improving their learning. In addition, self-regulated learners demonstrate improved academic achievement. Meanwhile, teacher self-regulation has not been much studied especially within Indonesia context. As many pieces of research have shown that self-regulation helps students improve their performance and achievement in learning, it is only reasonable that it also assists teachers in their professional development which results in competence and satisfaction in teaching.

Therefore, in this study, the researchers are curious to find the relationship between teacher self-regulation and their self-concept on competence and satisfaction in teaching. Suppose teacher self-regulation and self-concept are highly correlated, it is presumable that self-regulation can save teachers from burnout and thus can help them to conduct effective teaching which results in higher engagement among students. Two research questions are formulated in this study, (1) To what extent do

Indonesian teachers implement self-regulation in their teaching? (2) What is the correlation between teachers' self-regulation and the concept of their competency and satisfaction in teaching? The researchers aimed to investigate to what extent do Indonesian teachers implement self-regulation to assist them in their teaching job. Next, the researchers sought to find whether higher level of self-regulation correlated to higher level of self-concept on the Indonesian teachers.

Research Methodology

Participants

The participants of this study were chosen using convenience sampling, which allows teachers who were willing to participate in the study to be the subject of the research. In inviting the participants to join the study, the researchers first asked for friends who teach in various parts of Indonesia as prospective participants. Secondly, the researchers asked for their favor to distribute the questionnaire to other teachers. Finally, 40 (66.7%) female and 20 (33.3%) male Indonesian teachers of primary and secondary formal schools in Indonesia are willing to be the research subjects.

The data of the demographic form showed that 29 (48.3%) of the participants have taught for more than 5 years and 31 (51.7%) of the participants have less than 5 years of teaching experience. They domicile in different provinces across Indonesia, such as Banten (5%), DKI Jakarta (15%), West Java (8,3%), Central Java (26.7%), North Sulawesi (8.3%), East Nusa Tenggara (30%), and DIY, Bangka Belitung, East Java, and Moluccas (6.7%).

Research Design

This present study employed a mixed method to ensure the triangulation using quantitative and qualitative data collection. Quantitatively, the instrument includes a survey to recognize the teachers' demographic data and a 6-point Likert-scale questionnaire that was adapted from Teacher Self-Regulation Scale (TSRS) by Capa-Aydin et al. (2009) and the Teacher Self-Concept Evaluation Scale (TSCES) by Villa & Calvete (2001). The 6-point Likert-scale identified the responses as 1 (strongly disagree), 2 (disagree), 3 (slightly disagree), 4 (slightly agree), 5 (agree) and 6 (strongly agree). In the qualitative approach, the instrument includes semi-structured interview questions that were developed from the statements of the questionnaire.

The first part of the questionnaire that was adapted from the Teacher Self-Regulation Scale (TSRS) contains nine factors of teacher self-regulation which were presented in 15 items of statements. Those nine factors are goal setting, which is setting objectives to control the activities during the lesson; intrinsic interest, which is the beliefs teacher have regarding their personal interest in the teaching profession; performance goal orientation, which is goals to prove to others that one is a competent teacher; mastery goal orientation, which is goals to prove to oneself about their competency as a teacher; self-instruction which is applying instructional changes in teaching performance when needed; emotional control, which is regulating one's own emotion and feeling as a teacher; self-evaluation, which is evaluating one's own performance by comparing to the previous performance in teaching; self-reaction, which is teacher's emotional responses following their own performances; and help-seeking, which is the attempt to seek help when meeting difficulties. The second part of the questionnaire that was adapted from the Teacher Self-Concept Evaluation Scale (TSCES) includes 8 statements of self-concept of competence and 5 statements of self-concept of satisfaction.

The statements of the questionnaire were translated into the Indonesian language to ease the teachers in giving the responses. In addition, to facilitate the issue of distance between the researchers and the teachers, the questionnaire was distributed via Google Forms. Meanwhile, the interviews were done to gain a deeper understanding of teachers' experience in implementing teacher self-regulation strategies and to gain an understanding of the correlation between teacher self-regulation and teacher self-concept of their competence and satisfaction in teaching from the teachers' perspective. Three teachers agreed to be interviewed to share their experience of implementing self-regulation and their perception of their self-concept of competence and satisfaction in teaching. Due to the distance, the interviews were done by utilizing the Zoom video conference platform which enables video recording. The interviews were meant to be conversational in nature, which allows teachers to share advice about the topic discussed.

To analyze the data, there were two steps involved. First, the analysis of the quantitative data and second, the analysis of the qualitative data. To assess the quantitative data, the questionnaire's validity and reliability were evaluated using the Statistical Package for the Social Science (SPSS26.0). The data were then analyzed using a descriptive analysis to determine the mean score. For the qualitative data, the

information obtained from the interviews was transcribed, picked out for the supporting paragraphs of the quantitative results, and translated into English for presentation.

Findings and Discussion

Findings

This study aimed to investigate the correlation between Indonesian teachers' self-regulation and their self-concept of competence and satisfaction in teaching. In other words, the study aimed to find out whether the implementation of self-regulation on Indonesian teachers results in a positive self-concept of their competence as a teacher and their satisfaction in their teaching job. To guide the readers of this study, in this part the researchers would provide the results and discussions of both the questionnaire and interview data.

To obtain the study, the researchers provided a questionnaire that consisted of 15 statements of teacher self-regulation (Variable X), 8 statements of teacher self-concept of competence (Variable Y1), and 5 statements of teacher self-concept of satisfaction (Variable Y2). The validity and reliability of these statements were tested using SPSS.

Validity Test

To measure the validity of the questionnaire, the score of r_{count} must exceed the score of r_{table}. The total number of respondents for the questionnaire was 60 people (n=60). The score of r_{table} with n=60 in significance value of 5% is 0.254.

Table 1. Validity Test Result of TSR Items

No. Items	r_{count}	r_{table} 5% (60)	Result
1	0.539	0.254	Valid
2	0.420	0.254	Valid
3	0.389	0.254	Valid
4	0.626	0.254	Valid
5	0.616	0.254	Valid
6	0.651	0.254	Valid
7	0.470	0.254	Valid
8	0.588	0.254	Valid
9	0.620	0.254	Valid
10	0.568	0.254	Valid
11	0.700	0.254	Valid
12	0.669	0.254	Valid
13	0.642	0.254	Valid

14	0.632	0.254	Valid
15	0.616	0.254	Valid

Table 1. showed the validity test result on the items of teacher self-regulation questionnaire statements. The result showed that the score r_{count} of the 15 items of the teacher self-regulation questionnaire were ranging from 0.420 to 0.651 which was more than 0.254. In other words, the score of $r_{coun\ t} > r_{table}$. Thus, it could be concluded that all the items of teacher self-regulation questionnaire statements were valid and could be used in the study.

Table 2. Validity Test Result TSC of Competence Items

No. Items	r_{count}	r_{table} 5% (60)	Result
1	0.884	0.254	Valid
2	0.686	0.254	Valid
3	0.825	0.254	Valid
4	0.814	0.254	Valid
5	0.765	0.254	Valid
6	0.757	0.254	Valid
7	0.825	0.254	Valid
8	0.866	0.254	Valid

Table 2 presented the validity test result of teacher self-concept of competence questionnaire statements. From the data above, it could be seen that the r_{count} of the 8 items was more than the score of the $r_{table,}$ ranging from 0.686 to 0.884. Therefore, it could be stated that all statements in the teacher self-concept of competence questionnaire were valid and could be used as the instrument of the research.

Table 3. Validity Test Result TSC of Satisfaction Items

No. Items	r_{count}	r_{table} 5% (60)	Result
1	0.748	0.254	Valid
2	0.723	0.254	Valid
3	0.566	0.254	Valid
4	0.784	0.254	Valid
5	0.671	0.254	Valid

The teacher self-concept of satisfaction items validity test result was shown in Table 3. It could be seen from the table above that none of the r_{count} scores were below the r_{table} score. Therefore, it could be concluded that all the teacher self-concept of satisfaction statements were valid to be used as the research instrument.

Reliability Test

Besides the validity, the reliability of the questionnaire statements was also tested. The reliability test was done using the instruments of the Cronbach Alpha Test (α) method. According to Sujarweni (2014), a questionnaire is said to be reliable when the score of the Cronbach Alpha is > 0.6.

Table 4. Reliability Test Result

Variable	Cronbach's Alpha	Standardized Cronbach's Alpha	Result
X	0.853	0.6	Reliable
Y1	0.919	0.6	Reliable
Y2	0.710	0.6	Reliable

From the data in the table above, it could be seen that Cronbach's alpha scores of variables X, Y1, and Y2 were more than 0.6. Therefore, it could be concluded that the statements of teacher self-regulation, teacher self-concept of competence, and teacher self-concept of satisfaction were reliable to be used as the instrument of the research.

The Implementation of Teacher Self-Regulation

In this study, the researchers were curious to know to what extent Indonesian teachers implement teacher self-regulation strategies and what strategies were more popular among the teachers. Therefore, the researchers calculated and interpreted the data retrieved from the questionnaire. To guide the interpretation of the data, the researchers provided the agreement range of the mean score as follows:

Table 5. Six Point Likert Scale Mean Score Description

Interval	Description
1.00 – 1.82	Very low
1.83 – 2.65	Rather low
2.66 – 3.48	low
3.49 – 4.31	Slightly high
4.32 – 5.14	high
5.15 – 6.00	Rather high

Source: (Pimentel, 2019)

Goal Setting Strategy in Teacher Self-Regulation

The results of the data collection of the implementation of teacher self-regulation strategies are presented in the following tables.

Table 6. Goal Setting

Code	Statement	Respondent						Total Score	Mean	Std. Deviation
		SD (1)	D (2)	Sl.D (3)	Sl.A (4)	A (5)	SA (6)			
Goal Setting										
X1	When preparing classes, I identify goals to be achieved by students.	0	0	0	2	23	35	333	5.55	0.565
		0%	0%	0%	3.3%	38.3%	58.3%			
X2	Before instruction, I decide on how to assess my students.	2	0	1	3	26	28	315	5.25	1.035
		3.3%	0%	1.7%	5%	43.3%	46.7%			
Total		2	0	1	5	49	63	648	5.40	1.299
		1.7%	0%	0.8%	4.2%	40.8%	52.5%	100%		

From the table above, the data shows that 52.5% of the respondents responded 'strongly agree' to the two statements about the implementation of goal setting in TSR. A total of 43.3% of the respondents responded 'agree'. Meanwhile, only 3.3% of them answered 'slightly agree' with the statements and none of the respondents disagrees with the statements. Hence, it could be concluded that the goal-setting strategy in TSR had been implemented by the majority of the teachers. It is in accordance with the result of the mean score which was 5.40 indicating that the level of the implementation of goal-setting strategy in TSR was rather high.

This finding is supported by the interview results concerning the goal-setting strategy implementation. A teacher asserted that:

> *"My team and I set the learning goals together weekly. We ascertained students understood the learning goals before starting the lesson." (T1)*

Another teacher also shared her experience of implementing the goal-setting strategy in her class, she stated:

> *"In my class, I invited the students to make the learning goals that are aligned with the scope of the curriculum to build students' sense of belonging and responsibility toward the lesson. That way, I can*

decide on how to assess my students based on the goals my students have set." (T2)

From these statements, both teachers implied that they have implemented goal setting strategy in TSR by identifying the goals to be achieved by students.

Intrinsic Interest in Teacher Self-Regulation

Table 7 below demonstrates the intrinsic interest strategies implemented by the teachers.

Table 7. Intrinsic Interest

Code	Statement	Respondent						Total Score	Mean	Std. Deviation
		SD (1)	D (2)	Sl.D (3)	Sl.A (4)	A (5)	SA (6)			
Intrinsic Interest										
X3	I am proud of working as a teacher.	0	0	0	8	9	43	335	5.58	0.720
		0%	0%	0%	13.3%	15%	71.7%			
X4	I attend class enthusiastically.	0	0	0	10	23	27	317	5.28	0.739
		0%	0%	0%	16.7%	38.3%	45%			
Total		0	0	0	18	32	70	652	5.43	
		0%	0%	0%	15%	26.7%	58.3%	100%		

Table 7 shows that 58.3% of the respondents strongly agreed with the statements of the Intrinsic Interest strategy in TSR. While 26.7% of the respondents agreed, 15% slightly agreed, and none of them disagreed. The percentages indicate that most of the teachers have implemented the use of the Intrinsic Interest strategy in TSR. As seen in the table, the mean score was 5.43, which suggests that the use of intrinsic strategy among the teachers was at a rather high level. This finding was also supported by the results of the interview. A teacher in the interview section stated:

"I am proud of working as a teacher. I am also happy of becoming a teacher. I feel like becoming a teacher is my vocation." (T1)

She believed that becoming a teacher is her calling in life. That notion motivated her to do the job wholeheartedly. Another teacher admitted:

"The feeling of being proud of working as a teacher doesn't come until recently when I finally see my students grow. The realization that I am a part of their journeys of becoming who they are today makes me proud."(T3)

It has been acknowledged that self-regulated teachers are individuals who have a deeper sense of their roles as a teacher and can sustain their motivation in teaching (Toussi et al., 2011). Teacher 3 demonstrated her TSR by having refined intrinsic interest in her profession.

Emotional Control Strategy in Teacher Self-Regulation

Table 8 below presents the result of the survey on the implementation of emotional control strategy in TSR.

Table 8. Emotional Control

Code	Statement	Respondent						Total Score	Mean	Std. Deviation
		SD (1)	D (2)	Sl.D (3)	Sl.A (4)	A (5)	SA (6)			
Emotional Control										
X5	When I feel bad in a situation, I try to think positive.	0	0	1	10	22	27	315	5.25	0.795
		0%	0%	1.7%	16.7%	36.7%	45%			
X6	I stay calm when faced with a problem.	0	1	3	12	24	20	299	4.98	0.948
		0%	1.7%	5%	20%	40%	33.3%			
Total		0	1	4	22	46	47	614	5.12	
		0%	0.83%	3.3%	18.3%	38.3%	39.2%	100%		

The data showed that 3.3% of the respondents slightly disagreed and 0.83% of them disagreed with the statements on emotional control strategy. Therefore, only around 4% of the respondents had not regulated their emotional control in the class. In other words, the majority of the respondents had implemented an emotional control strategy in their TSR. The total score also showed a score of 5.12 denoting that the implementation of emotional control strategy was high among the teachers. In the interview section, teachers shared their experiences in coping with problems that occurred in the class. A teacher expounded:

> *"When problems occur, I will find a space for myself so I can process my emotion and calm myself down. I usually find a quiet place to pray. Then in some cases, I'd also find a friend whom I can speak about the problems too." (T3)*

Further, another teacher disclosed:

> *"When problems occur in the class, first, I try not to panic so that I don't make my students panic too. Then, I usually take a deep breath and try to make myself calm so I can think and find the solution. Sometimes, when I need to deal the problems with the parents, I practice speaking and to communicate the matters alone before I speak to them." (T2)*

Both teachers supported the claim that the emotional control strategy was highly implemented among the teachers.

Self-Reaction Strategy in Teacher Self-Regulation

Table 9. below shows the results of the implementation of self-reaction strategy in TSR by the teachers.

Table 9. Self-Reaction

Code	Statement	Respondent						Total Score	Mean	Std. Deviation
		SD (1)	D (2)	Sl.D (3)	Sl.A (4)	A (5)	SA (6)			
Self-Reaction										
X7	I appreciate myself when everything goes according to my plan.	0	0	1	4	22	33	327	5.45	0.699
		0%	0%	1.7%	6.7%	36.7%	55%			
X8	Realizing that I am successful encourages me to study more.	0	0	1	4	23	32	326	5.43	0.698
		0%	0%	1.7%	6.7%	38.3%	53.3%			
Total		0	0	2	8	45	65	653	5.44	
		0%	0%	1.7%	6.7%	37.5%	54.2%	100%		

As seen in the table above, a total of 54.2% of respondents strongly agreed with the statements relating to self-reaction strategy. While 37.5% of them agreed, 6.7% of them slightly disagreed, and only 1.7% of them slightly disagreed. The data suggest that the self-reaction strategy had been implemented by most of the Indonesian teachers who participated in the study. This is in line with the result of the mean score

showing a score of 5.44, which indicates that the implementation of the self-reaction strategy was rather high. The findings sided with the statements of the teachers in the interview section:

> *"When I feel like I have worked hard to do something useful for my students, for my work, then I will give little treats to myself, such as time to rest, good food, etc." (T1)*

Another teacher added:

> *"I give myself a self-reward after a hard day at work to keep me sane. However, I only do it when I am certain that the goals have been achieved for the good of the students. Otherwise, I would fall to the extreme of being too appreciative towards myself." (T2)*

Mastery Goal Orientation Strategy in Teacher Self-Regulation

Table 10. shows the percentages of the response given by the respondents on the statement of mastery goal orientation strategy in TSR.

Table 10. Mastery Goal Orientation

Code	Statement	Respondent						Total Score	Mean	Std. Deviation
		SD (1)	D (2)	Sl.D (3)	Sl.A (4)	A (5)	SA (6)			
Mastery Goal Orientation										
X9	I direct myself to use time effectively.	0	1	1	5	20	30	323	5.38	0.846
		0%	1.7%	1.7%	8.3%	33.3%	55%			
Total		0	1	1	5	20	30	323	5.38	
		0%	1.7%	1.7%	8.3%	33.3%	55%			

The percentages show that 55% of the respondents strongly agreed with the statement, 33.3% agreed, and 8.3% slightly agreed, leaving 1.7% slightly disagreed and 1.7% disagreed with the statement. It can be concluded that most of the respondents had implemented a mastery goal orientation strategy in TSR. The mean score of 5.38 supports the data, indicating that the implementation was rather high. Regarding the implementation of the mastery goal orientation strategy, the teacher shared her experience in the interview:

> *"I learn to manage and spare time for my personal life. I do not have any agenda or schedule; however, I rely on my commitment to use*

> *time effectively both for my professional and personal life. For example, when I work, I will set the target of work that needs to be finished. Then I will do my best to focus on completing the tasks. And when I am off work hours, I try my best to use the time for my personal life." (T1)*
>
> *"I try to restrict between work hours and personal time. I try my best to use the work hours as effective as possible so that I don't need to bring work home. If I don't restrict myself, I will use most of my time to work and it drains me out." (T3)*

From the above statements, it can be seen that teachers have implemented a mastery goal orientation strategy in TSR. It indicates that teachers have set goals for improving their competencies. This aligns with Kyriakides et al., (2002) who argued that effective teachers maximize their working time.

Self-Instruction Strategy in Teacher Self-Regulation

Table 11. presents the responses of the teachers on the implementation of self-instruction strategy in TSR.

Table 11. Self-Instruction

Code	Statement	Respondent						Total Score	Mean	Std. Deviation
		SD (1)	D (2)	Sl.D (3)	Sl.A (4)	A (5)	SA (6)			
Self-Instruction										
X10	I use student feedback to improve my instruction.	0	1	2	7	16	34	320	5.33	0.933
		0%	1.7%	3.3%	11.7%	26.7%	56.7%			
X11	While I am preparing classes I take students' needs into account.	0	0	0	5	19	36	331	5.52	0.651
		0%	0%	0%	8.3%	31.7%	60%			
Total		0	1	2	12	35	70	651	5.43	
		0%	1.7%	3.3%	10%	29.2%	58.3%	100%		

It can be seen that only 1.7% of respondents disagreed, and 3.3% of respondents slightly disagreed with the statements of self-instruction strategy in TSR, leaving the majority of the respondents on the agreeing side. In accord with the mean score,

which was 5.43, the data suggests that the implementation of a self-instruction strategy among the teachers was rather high. The result of the questionnaire was supported by a teacher's statements in the interview section. She mentioned:

> *"Before each class, I prepare myself by setting my mood to be ready to meet my students. I come to the classroom earlier to observe the students, so I can identify their conditions, their mood, and their readiness, therefore I can decide whether I need to improve the activities that I have prepared." (T3)*

For this teacher, one way of preparing herself to be ready for the class is by observing the students before she began her class. She took feedback from her observations to improve her instruction.

Self-Evaluation Strategy in Teacher Self-Regulation

Table 12. below shows the percentages of the implementation of self-evaluation strategy by the teachers.

Table 12. Self-Evaluation

Code	Statement	Respondent						Total Score	Mean	Std. Deviation
		SD (1)	D (2)	Sl.D (3)	Sl.A (4)	A (5)	SA (6)			
Self-Evaluation										
X12	I learn from the mistakes I made in class.	0	0	0	3	14	43	340	5.67	0.572
		0%	0%	0%	5%	23.3%	71.7%			
X13	At the end of instruction, I try to determine whether I have met my goals or not.	0	0	2	5	30	23	314	5.23	0.745
		0%	0%	3.3%	8.3%	50%	38.3%			
Total		0	0	2	8	44	66	654	5.45	
		0%	0%	1.7%	6.7%	36.7%	55%	100%		

From Table 12, it can be seen that only 1.7% of the respondents were on the disagreeing side of the statements of self-evaluation strategy, meaning that most of the respondents were on the agreeing side. This is in accord with the mean score that shows 5.45 denoting that the level of the implementation of the self-evaluation strategy was rather high. Teachers gave responses regarding this strategy, affirming:

> *"Yes, because I believe that every day there are things we can learn from. Besides personal reflection, I also do reflection in a group with my team. We discuss the struggle that we have and the problem that occurs. I think it is very helpful for me because it allows me to learn from different perspectives." (T1)*

Teacher 1 displayed her self-evaluation strategy in TSR by having self-reflection and group evaluation with her colleagues. This implementation overlapped with the help-seeking strategy that will be further discussed in the next section. Another teacher declared:

> *"The school requires us to write reflections in the unit plan that we make, but I personally think it is hard for me to cope. I find reflections to be more meaningful when I write them with my students weekly. I read students' reflections and learn from what works and what doesn't from them." (T2)*

From her statement, Teacher 2 asserted that she did the self-evaluation by reflecting on students' weekly reflections. She took feedback from her students and evaluated her teaching. Her strategy overlapped with the self-instruction strategy where she took students' needs into account.

Help-Seeking Strategy in Teacher Self-Regulation

Table 13. below shows the percentages of the implementation of help-seeking strategy by the teachers.

Table 13. Help-Seeking

Code	Statement	Respondent						Total Score	Mean	Std. Deviation
		SD (1)	D (2)	Sl.D (3)	Sl.A (4)	A (5)	SA (6)			
Help-Seeking										
X14	I ask for help from my colleagues when I encounter	0	1	0	9	15	35	323	5.38	0.865
		0%	1.7%	0%	15%	25%	58.3%			

	problems that I cannot solve.									
X15	While preparing for classes, I get help from my colleagues when needed.	0	0	1	13	24	22	307	5.12	0.804
		0%	0%	1.7%	21.7%	40%	36.7%			
Total		0	1	1	22	39	57	630	5.25	
		0%	0.83%	0.83%	18.3%	32.5%	47.5%	100%		

From the data above, less than 2% of the respondents were on the opposing side of the statements of help-seeking strategy in TSR, meaning the rest of the respondents, which is the majority, had used help-seeking strategy in their TSR. The mean score was in agreement showing a score of 5.25 indicating that the implementation of the help-seeking strategy was rather high among the teachers. In the interview section, teachers were asked whether they often seek help when they encountered problems, and they responded:

> *"When I encounter problems, I try to find the solution by myself first. However, when I can't find the solution, I don't hesitate to ask for help from my team or other teachers." (T1)*

> *"I ask for help from someone I think is knowledgeable about the matter. I'm not afraid or ashamed to ask for help because I don't want to disadvantage others if I make mistakes because of my hesitation to ask for help." (T2)*

From their statements, it can be seen that teachers have implemented a help-seeking strategy in TSR.

The Correlation between Teacher Self-Regulation and Teacher Self-Concept of Competence

In this study, the data were submitted to Statistical Package for the Social Science (SPSS) and were examined using Pearson product-moment correlation to identify the degree of the correlation between teacher self-regulation (TSR) and teacher self-concept (TSC) of competence and satisfaction. According to Sugiyono (2017), a

correlation degree can be considered very low (0.00 – 0.199), low (0.20 – 0.399), moderate (0.40 – 0.599), strong (0.60 – 0.799), or very strong (0.80 – 1.000).

Table 14. Correlation between TSR and TSC of Competence

Correlations			
		TSR	TSC of Competence
TSR	Pearson Correlation	1	.381**
	Sig. (2-tailed)		.003
	N	60	60
TSC of Competence	Pearson Correlation	.381**	1
	Sig. (2-tailed)	.003	
	N	60	60
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 14. provides information about the significant value between TSR and TSC of competence, which scored 0.003. According to Pearson correlation theory, if the significance value is < 0.05, there is a correlation, but if the significance value is > 0.05, there is no correlation. Therefore, there was a positive correlation between TSR and TSC of competence. The table showed that the correlation score between TSR and TSC of competence was 0.381. The score was in the range of 0.200-0.399 which indicated that the correlation between the two variables was low.

From the analysis result of the questionnaire data, it could be concluded that teacher self-regulation correlated with teacher self-concept of competence, even though the correlation is low. A teacher confirmed:

> *"For me, I can't say whether I am competent or not because the judgment should come from the other people who see my work. I don't know if I am competent or not, but I always try my best to be a teacher who gives a good influence on my students. Nevertheless, I think, implementing teacher self-regulation has helped me to improve myself to be competent in teaching." (T1)*

The statement displayed that even though Teacher 1 shows low confidence in her competence, she still believes that the implementation of TSR contributed to her competence.

The Correlation between Teacher Self-Regulation and Teacher Self-Concept of Satisfaction

Table 15 showed that the significance value between TSR and TSC of satisfaction.

Table 15. Correlation between TSR and TSC of Satisfaction

Correlations			
		TSR	TSC of Satisfaction
TSR	Pearson Correlation	1	.372**
	Sig. (2-tailed)		.003
	N	60	60
TSC of Satisfaction	Pearson Correlation	.372**	1
	Sig. (2-tailed)	.003	
	N	60	60
**. Correlation is significant at the 0.01 level (2-tailed).			

The significance value between TSR and TSC of satisfaction was 0.003, which was below 0.05 indicating that there was a positive correlation between TSR and TSC of satisfaction. The correlation score between the two variables was 0.372, which was in the range of 0.200-0.399 indicating that the correlation was low. Nevertheless, in the interview section, a teacher recorded:

> *"Yes, I think the implementation of the self-regulation strategy has increased my satisfaction. When I implement those strategies, it helps me to run the class more smoothly which makes the students achieve their learning goals. So yes, my satisfaction comes when students enjoy the class and achieve their learning goals." (T1)*

The statement suggested that there is a positive correlation between TSR and TSC satisfaction. Which confirmed that the implementation of teacher self-regulation enhanced teacher self-concept of satisfaction.

Discussions

In this section, the findings will be discussed to find out whether Indonesian teachers have implemented teacher self-regulation strategies and whether it positively correlates with teacher self-concept of competence and satisfaction. The findings will be used to give suggestions to teachers and to the stakeholders on ways to help teachers gain positive self-concept of competence and satisfaction, so that they can have positive well-being and able to perform well in the class.

The result of the questionnaire shows that the implementation of goal-setting strategy in TSR was considered rather high with the mean score of 5.40. The implementation of intrinsic strategy among the teachers was at a rather high level with the mean score of 5.43. The implementation of emotional control strategy was high among the teachers with the mean score of 5.12. The implementation of the self-reaction strategy was rather high with the mean score of 5.44. The implementation of mastery goal orientation strategy in TSR was rather high with the mean score of 5.38. The data suggests that the implementation of a self-instruction strategy among the teachers was rather high with the mean score of 5.43. The implementation of the self-evaluation strategy was rather high with the mean score of 5.45. And the implementation of the help-seeking strategy was rather high with the mean score of 5.25. From this finding it can be concluded that Indonesian teachers have highly implemented teacher self-regulation strategies in their teaching job. It is also supported by the interview findings which prove previous theories and findings that self-regulated teachers are able to control and monitor their thoughts, emotions, and actions to perform well in the class Zimmerman et al. 1996; Pazhoman & Sarkhosh, 2019).

Regarding the correlation between the high level of the implementation of teacher self-regulation strategies with teacher self-concept of competence and satisfaction, the findings show that there is a positive correlation between TSR and TSC of competence and between TSR and TSC of satisfaction. Nevertheless, the correlation was low with the correlation score of 0.381 and 0.372. Nevertheless, teachers claimed in the interview section that the implementation of TSR contribute to the development of teacher competence. This proves the previous findings Baier et al. (2019), Fauth et al. (2019), Karlen et al. (2020), and Han (2021). When teachers found that students showed improvements and enjoyment in their learning, teachers realized that it was because they had put efforts and had controlled everything well as the result of the implementation of self-regulation. In turn, it made them feel competent in their teaching profession. Similarly, even though the correlation was low between TSR and TSC of satisfaction, it was reported that teachers felt that TSR enhanced their self-concept of satisfaction. Similar to Toropova et al. (2021) and Pedditzi et al. (2021), teachers reported that their efforts to implement TSR strategies have contributed to their well-being as a teacher who are highly demanded and stressed by workload.

Conclusions and Suggestions

Based on the findings, it can be asserted that the implementation of teacher self-regulation strategies by Indonesian teachers is high. The data obtained from the interviews also signify that Indonesian teachers have utilized teacher self-regulation strategies to support their teaching practice. The present study also found that there is a positive correlation between teachers' self-regulation and teachers' self-concept of competence and satisfaction. Even though the correlation is found low, it's still worth noting that the implementation of teacher self-regulation strategies contributes to the enhancement of teachers' self-concept of competence and satisfaction. A

According to research, improving teachers' self-concept results in improved behaviors that result in more effective teaching. It can be concluded that the implementation of teacher self-regulation strategies elicits effective teaching. Therefore, it is recommended that teachers are trained to implement self-regulation strategies to boost their self-concept which will promote effective teaching. When effective teaching is accomplished, students achieve learning goals and demonstrate desired learning behaviors.

The present study is not without limitations. This study only involved small numbers of participants and it was not specified to teachers of specific subjects or levels. Future studies could fill the limitations by inviting larger numbers of participants and/or by specifying the study to teachers of specific subjects or levels. Besides, the TSR and TSC strategies need to be explicitly instructed to pre-service teachers in their education. These areas can be worthwhile to prepare more confidents future teachers.

References

Baier, F., Decker, A. T., Voss, T., Kleickmann, T., Klusmann, U., & Kunter, M. (2019). What makes a good teacher? The relative importance of mathematics teachers' cognitive ability, personality, knowledge, beliefs, and motivation for instructional quality. *British Journal of Educational Psychology*, *89*(4). https://doi.org/10.1111/bjep.12256

Capa-Aydin, Y., Sungur, S., & Uzuntiryaki, E. (2009). Teacher self-regulation: Examining a multidimensional construct. *Educational Psychology*, *29*(3). https://doi.org/10.1080/01443410902927825

Dörrenbächer, L., & Perels, F. (2016). Self-regulated learning profiles in college students: Their relationship to achievement, personality, and the effectiveness of an intervention to foster self-regulated learning. *Learning and Individual Differences*,

51. https://doi.org/10.1016/j.lindif.2016.09.015

Fauth, B., Decristan, J., Decker, A. T., Büttner, G., Hardy, I., Klieme, E., & Kunter, M. (2019). The effects of teacher competence on student outcomes in elementary science education: The mediating role of teaching quality. *Teaching and Teacher Education*, *86*. https://doi.org/10.1016/j.tate.2019.102882

Fauzi, A., & Widjajanti, D. B. (2018). Self-regulated learning: The effect on student's mathematics achievement. *Journal of Physics: Conference Series*, *1097*(1). https://doi.org/10.1088/1742-6596/1097/1/012139

Han, F. (2021). The relations between teaching strategies, students' engagement in learning, and teachers' self-concept. *Sustainability (Switzerland)*, *13*(9). https://doi.org/10.3390/su13095020

Karlen, Y., Hertel, S., & Hirt, C. N. (2020). Teachers' Professional Competences in Self-Regulated Learning: An Approach to Integrate Teachers' Competences as Self-Regulated Learners and as Agents of Self-Regulated Learning in a Holistic Manner. *Frontiers in Education*, *5*. https://doi.org/10.3389/feduc.2020.00159

Kyriakides, L., Campbell, R. J., & Christofidou, E. (2002). Generating criteria for measuring teacher effectiveness through a self-evaluation approach: A complementary way of measuring teacher effectiveness. *School Effectiveness and School Improvement*, *13*(3). https://doi.org/10.1076/sesi.13.3.291.3426

Maslach, C., Jackson, S. E., & Leiter, M. P. (2018). Maslach Burnout Inventory Manual. In *Mind Garden, Inc*.

Mbato, C. L., & Cendra, A. (2019). Efl undergraduate students' self-regulation in thesis writing: help-seeking and motivation-regulation. *JELE (Journal of English Language and Education)*, *5*(1). https://doi.org/10.26486/jele.v5i1.949

Pazhoman, H., & Sarkhosh, M. (2019). The relationship between Iranian English high school teachers' reflective practices, their self-regulation and teaching experience. *International Journal of Instruction*, *12*(1). https://doi.org/10.29333/iji.2019.12164a

Pedditzi, M. L., Nonnis, M., & Nicotra, E. F. (2021). Teacher Satisfaction in Relationships With Students and Parents and Burnout. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.703130

Pimentel, J. L. (2019). Some Biases in Likert Scaling Usage and its Correction. *International Journal of Sciences: Basic and Applied Research*, *45*(1).

Prabhakararao Sampthirao. (2016). Self-Concept and Interpersonal Communication. *International Journal of Indian Psychology*, *3*(3). https://doi.org/10.25215/0303.115

Prasojo, L. D., Habibi, A., Yaakob, M. F. M., Pratama, R., Yusof, M. R., Mukminin, A., Suyanto, & Hanum, F. (2020a). Dataset relating to the relationship between teacher self-concept and teacher efficacy as the predictors of burnout: A survey in Indonesian education. *Data in Brief*, *30*. https://doi.org/10.1016/j.dib.2020.105448

Prasojo, L. D., Habibi, A., Yaakob, M. F. M., Pratama, R., Yusof, M. R., Mukminin, A., Suyanto, & Hanum, F. (2020b). Dataset relating to the relationship between teacher self-concept and teacher efficacy as the predictors of burnout: A survey in Indonesian education. *Data in Brief*, *30*, 105448. https://doi.org/10.1016/J.DIB.2020.105448

Sugiyono. (2017). Statistika untuk Penelitian. Bandung: Penerbit Alfabeta. In *Jurnal Akuntansi* (Vol. 21, Issue 1).

Sujarweni, V. W. (2014). Metode Penelitian: Lengkap, Praktis, dan Mudah Dipahami. Yogyakarta: In *Pustaka Baru Press* (Vol. 1, Issue Metodologi Penelitian).

Sun, Z., Xie, K., & Anderman, L. H. (2018). The role of self-regulated learning in students'

success in flipped undergraduate math courses. *Internet and Higher Education*, *36*. https://doi.org/10.1016/j.iheduc.2017.09.003

Toropova, A., Myrberg, E., & Johansson, S. (2021). Teacher job satisfaction: the importance of school working conditions and teacher characteristics. *Educational Review*, *73*(1). https://doi.org/10.1080/00131911.2019.1705247

Toussi, M. T. M., Boori, A. A., & Ghanizadeh, A. (2011). The Role of EFL Teachers' Self-regulation in Effective Teaching. *World Journal of Education*, *1*(2). https://doi.org/10.5430/wje.v1n2p39

Usher, E. L., & Schunk, D. H. (2019). Social Cognitive Theoretical Perspective of Self-Regulation. In *Handbook of Self-Regulation of Learning and Performance*. https://doi.org/10.4324/9781315697048-2

Villa, A., & Calvete, E. (2001). Development of the teacher self-concept evaluation scale and its relation to burnout. *Studies in Educational Evaluation*, *27*(3). https://doi.org/10.1016/S0191-491X(01)00028-1

Zhu, M., Liu, Q., Fu, Y., Yang, T., Zhang, X., & Shi, J. (2018). The relationship between teacher self-concept, teacher efficacy and burnout. *Teachers and Teaching: Theory and Practice*, *24*(7). https://doi.org/10.1080/13540602.2018.1483913

Zimmerman, B. J., Bonner, S., & Kovach, R. (1996). Developing Self-Regulated Learners: Beyond Achievement to Self-Efficacy (Psychology in the Classroom). In *Focus on Exceptional Children*.