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The Relationship Between Pre-Service Teachers' Online Self-Regulation Skills and Cognitive Emotion Regulation Skills

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Abstract
The purpose of this research is to determine the relationship between online self-regulatory learning skills and cognitive skills of regulating emotions. It has been examined that if there is a difference in the gender variable between online self-regulatory learning skills and cognitive emotion regulation skills of pre-service teachers and a meaningful relationship between the online self-regulatory learning skills and cognitive emotion regulation skills in terms of this purpose. It is a descriptive relational research. The sample this research is 434 pre-service teachers studying in the faculty of education. In this research, Online Self-Regulatory Learning Scale and Cognitive Emotion Regulating Scale has been used as a data collection tool. As a result of this research, it is seen that there is a significant difference in favor of female pre-service teacher on gender variable within the scope of online self-regulatory skills. When the sub-dimensions are searched it has seen that there is a significant difference in "environment structuring", "task strategies", "time management" sub-dimensions. When the cognitive emotion regulation skills of pre-service teachers have been examined according to the gender variable it is stated that there is a significant difference in favor of female pre-service teachers in "putting into perspective" sub-dimension. According to this result, it was determined that female pre-service teachers thought that "everything could have been worse, others had experienced worse events, their last experience was not as bad as the previous ones, and there were worse things in life" than male pre-service teachers.

Keywords: Pre-Service Teacher, Online Self-Regulation Skills, Cognitive Emotion Regulation

1. Introduction

1.1 Introduce the Problem

The expectations that 21st century in the fields of science and technology is far more developed than 20th century and effecting the societies positively on economy, health and security thanks to the globalization have been interrupted with the pandemic. Both the developing technology and globalization has affected economy and fundamental components of societies, especially individual's security, health and economical powers. With especially the global Covid-19 pandemic that has emerged in this era, worldwide it has caused dramatic changes and transformations in every field of societies.

Global pandemic period has caused the technology to influence deeply into education., Technology has been an important part of education system in the global pandemic period (Varışlı, 2021). However, 21th century skills in the period before the global pandemic is listed in the four categories as followed:

1. Main areas and 21st century themes (language, arts and crafts, math, science, global awareness, financial literacy, etc.),
2. Learning and discovery skills (creativity, critical thinking and problem-solving skills, etc.)
3. Information, media and technology skills,
4. Life and occupational skills (initiative and self-governance, etc.) (Slavin, 2013), but together with the changing situations, technology skills have moved forward and a transformation in education has started.

Because of the constant changing life, occupation and education condition in the 21st century, it is important to raise the students according to adjust these changes. For this reason, one of the important aims of the education process should be to prepare students as life-long learners against changing life conditions. In order to achieve this goal, students must have self-regulation skills, that is, knowledge, motivation to learn, and the will to provide the skills and desire to ensure independent and effective learning (Woolfolk, 2015).

1.2 Self Regulation

According to Bandura, one purpose of teaching is that students continue to learn independently throughout their lives, without the need for teachers. In order to continue life-long learning independently, individuals need to have self-regulation. Zimmerman defines self-regulation as a process in which individuals constantly organize and manage their environment by activating their thoughts, behaviors and emotions to achieve their goals (Ramdass, & Zimmerman, 2011, Zimmerman, 2000). Bandura (2007) summarizes self-regulation as setting goals and employing the necessary effort and resources to achieve these goals (Woolfolk, 2015). Pintrich (2000) defines self-regulation as an active and constructive process in which students set goals for their learning and then try to monitor, regulate and control their cognitive processes, motivations and behaviors. Theoretically, self-regulation is a proactive process in which individuals constantly organize and manage their thoughts, feelings, behaviors and environments in order to achieve academic goals (Boekaerts & Corno, 2005; Zimmerman, 2000). They self-regulate by monitoring their performance and constantly reflecting on their learning outcomes (Zimmerman, 2008).

In short, self-regulation refers to self-generated thoughts, feelings, and actions that are planned and cyclically adapted to achieve personal goals (Zimmerman, 2000). Self-regulation is a cyclical process (Schunk, 2011). Zimmerman talks about 3 cycle stages. *Forethought* includes setting goals, planning, self-efficacy, and motivation. It comes before the actual performance. *Taking action* includes self-control, and self-monitoring. It covers the processes at the moment of learning. It affects attention and behavior. *Reflection* is repetition of forethinking and planning, self-evaluation and adaptation skills (Zimmerman, 2000; Schunk, 2011). For example, students who self-regulate create goals for a learning activity, choose study methods that are likely to help achieve their goals, monitor their progress towards the goal, and change their study method when necessary (Ormrod, 2013). Zimmerman describes self-regulation as cyclical because feedback from previous performance is used to make adjustments during current efforts. Such adjustments are necessary as personal, behavioral and environmental factors are constantly changing during learning and performance (Zimmerman, 2000).

Winne and Hadwin, on the other hand, talk about a four-stage model. These stages are analyzing the task, setting goals and creating plans, using tactics and strategies to accomplish the task, and to organize learning. The self-regulated learning cycle is emphasized in both Zimmerman's and Winnie and Hadwin's models. Each step prepares the next step and the cycle continues until the student encounters new difficulties while learning (Woolfolk, 2015). Zimmerman (2000) expresses self-regulation as a concept related to the degree to which students actively participate in their own learning processes in terms of metacognition, motivation and behavior. Such students learn by their own efforts and use certain strategies to achieve certain goals (Açıkgöz, 2003).

1.3 Online Self Regulation

It is known that information and communication technologies have been used in schools both in academic and administrative fields for the last 20 years and a digital transformation has been experienced throughout the world. Distance education, which started with the letter education model in the 1700s, has turned into compulsory online education both in Turkey and around the world with the Covid-19 pandemic.

Online learning environments require a self-discipline-oriented learning process with the opportunity for students to exchange ideas with others and facilitate their self-regulated learning (Hwang, Wang & Lai, 2021). Because of the reasons that teacher control in online learning environments over the learning process and student behaviors is weaker than traditional classroom environments and besides the lack of a social environment that can motivate the student and support the learning process; the individual motivations of the students, the awareness towards the learning processes and the learning strategies being used has gained more importance (Tülübaş, 2022). It is stated that in the online learning environment, it is more important for students to take their own learning responsibilities, to organize their own learning, and to motivate themselves while doing all of these, compared to traditional classrooms. (Artino, 2008; Broadbent, 2017; Fontana et al. 2015, Hwang and Wang, 2021; Wong et al., 2019).

In order to achieve effective learning in an online environment and increase students' self-regulation skills, online lessons need to be redesigned. Based on the experiences of students and lecturers with the Covid-19 global epidemic period, the main factors that prevent students from being both effective and self-regulated learners are; Curriculum that are not suitable for online learning can be expressed as lack of opportunities for working order, less communication with students, therefore less feedback and interaction. For this reason, the training of pre-service teachers as teachers who know how to learn online self-regulation will enable them to train their students as individuals who can easily adapt to the online learning process and have developed self-regulation skills in similar situations in the future.

Effective self-regulation requires goals and motivation. Students have to regulate their behaviors and important conditions of their success, beliefs, tendencies and emotions (Schunk, 2011). For this reason, emotion regulation skills are as important as self-regulation skills in students' learning.

1.4 Cognitive Emotion Regulation

Emotion regulation is defined as all of the internal and external processes that enable individuals to consciously evaluate and control their temporary and intense emotions and their reactions to these emotions while reaching their goals. Emotion regulation includes processes related to monitoring, evaluating and changing our emotional experiences (Thompson, 1994); Thompson, 2006). Emotion regulation involves changing or stopping emotional responses, as well as creating and developing new emotional responses (Ochsner & Gross, 2005).

The capacity to manage emotion is based on the growth of self-regulatory capacities in the early years. It is also influenced by situational demands, influences from other people, and the individual's goals of emotion regulation in a particular setting (Thomson & Calkins, 1996). Emotion regulation skills are a universal innate process. People encounter different emotional stimuli throughout their lives, have to cope with these emotions, and the development of these skills takes place over time. Emotion regulation skills, which begin in infancy, show rapid development during childhood and adolescence.

It is seen that the process of emotion regulation helps the individual to make his life easier. Emotion regulation is not only goal-oriented, but it also plays an active role in determining goals (Tuncalı, 2022). The regulation of emotions through cognitions is inextricably linked to human life. Cognitions or cognitive processes; for example, during or after threatening or stressful events, can help us manage or regulate our emotions or feelings and gain control over our emotions and/or not be overwhelmed by them (Garnefski, Kraaij, & Spinhoven, 2001).
Garnefski, Kraaij, and Spinhoven (2001) created the concept of cognitive regulating emotion by considering only the cognitive aspect of the emotion regulation process. It is defined as overcoming the emotions that cause problems and distress the individual through spiritual ways (cognitive strategies). Garnefski, Kraaij, and Spinhoven (2001) identified 9 cognitive emotion regulation strategies that people tend to use after negative life events. These are self-blame, blaming others, focusing on thought, catastrophizing, positive refocusing, refocusing

on the plan, reconsidering, putting into perspective, and accepting. For this reason, while some of the cognitive strategies cause positive results in certain situations, they can also cause negative situations in other situations. While some of the cognitive emotion regulation strategies are functional, some are not. Functional ones are reassessment, problem solving; dysfunctional are thought focusing and suppression. The use of dysfunctional strategies has been found to be more associated with psychopathologies such as depression, anxiety disorders and eating disorders (Ercan, 2015). From the perspective presented, emotions and our regulation of them are directly related to self-regulation and therefore should play a more important role in current research and theory regarding the nature of goal-directed, lifelong, self-regulated learning (Schutz & Daviz, 2000). Therefore, more research is needed related to these two areas.

In this study, it was aimed to determine the relationship between pre-service teachers' online self-regulatory learning skills and cognitive emotion regulation skills. For this purpose, following questions have been sought in this study conducted with prospective teachers.
1.Do online self-regulation skills and cognitive emotion regulation skills differ according to gender?
2.Is there a significant relationship between online self-regulation skills and cognitive emotion regulation skills?

2. Method

2.1 Research Model

This study is descriptive relational research. It is conducted with the aim of describing, establishing relationships and comparing. Relational (correlational) research is research in which the relationship between two or more variables is examined without intervening in any way (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2021). So, the relationship between pre-service teachers' online self-regulatory learning skills and cognitive emotion regulation skills has examined.

2.2 Study Group

The study group consists of 434 pre-service teachers studying at the education faculties of three universities in Turkey. The data of the study has been collected online. Due to the global epidemic, these pre-service teachers mostly attended online courses, it is thought that pre-service teachers studying at different universities and departments might have different self-regulation skills and cognitive emotion regulation skills, and a sample is selected in that direction. The frequency of the study group by gender is given in Table 1.

Table 1: Personal Informations of Pre-service Teachers

Gender	**n**	**%**
Female	309	71.2
Male	125	28.8
TOTAL	434	100

2.3 Data Collection Tools

Two scales have been used as data collection tools in the study.
Online Self-Regulatory Learning Scale; It was developed by Barnard et al. (2009) to examine students' self-regulation skills and was adapted into Turkish by Samsa and Yetik (2011). The scale is five-point Likert type. The scale consists of 24 items prepared to measure the self-regulation skills of undergraduate students in online environments and six subscales: Goal Setting, Environment Structuring, Task Strategies, Time Management, Searching for Help, Self-Assessment. The internal consistency coefficients of the subscales range from 0.64 to 0.77. The internal consistency coefficient of the whole scale is 0.89.

Cognitive Emotion Regulation Scale; It was developed by Garnefski, Kraaij, and Spinhoven (2001) in order to measure the emotion regulation skills of university students. It is adapted into Turkish by Onat and Otar (2010). It is a five-point Likert type that goes from “not at all suitable for me” to “completely suitable for me”. The scale

consists of 36 items in total. The Cronbach's alpha value of the scale ranges from 0.67 to 0.81. Total score is not calculated in the scale. The scale includes nine sub-dimensions. These sub-dimensions are;
1. Self-blame: Self-blaming thoughts for what have been experienced
2. Acceptance: Thoughts of accepting what have been experienced
3. Focusing on thought (Rumination)/ Deep thinking: Constantly thinking about feelings and thoughts in relation to negative events
4. Positive refocusing: Thinking about topics that bring satisfaction instead of the real event
5. Refocus on planning: Thinking about what steps to take to deal with the event
6. Positive reappraisal: Attributing a positive meaning to the event in terms of personal development
7. Putting into perspective: Thoughts that play a role in alleviating the weight of the event compared to other events
8. Catastrophizing: Thoughts that clearly emphasize the horror of events
9. Blaming others: Thoughts that blame others for the experiences

Table 2: Online Self-Regulatory Learning Scale and Cognitive Emotion Regulation Scale and their sub-dimensions and item numbers

Online Self-Regulatory Learning Scale		**Cognitive Emotion Regulation Scale**	
Sub-dimensions	Item numbers	Sub-dimensions	Item numbers
1. Goal Setting	5	1. Self-blame	4
2. Environment Structuring	4	2. Acceptance	4
3. Task Strategies	4	3. Rumination	4
4. Time Management	3	4. Positive refocusing	4
5. Searching for Help	4	5. Refocus on planning	4
6. Self-Assessment	4	6. Positive reappraisal	4
		7. Putting into perspective	4
		8. Catastrophizing	4
		9. Blaming others	4
Total	24		36

2.4. Analysis of Data

In this study, the relationship between pre-service teachers' online self-regulation skills and emotion regulation skills has been evaluated. Analysis techniques suitable for the purpose of the research have been used in the analysis of the data. Descriptive statistics (mean and standard deviation) have used to analyze the data collected for the study, T-test to determine the difference according to gender, and ANOVA has been applied for the comparisons between groups due to the normal distribution of the data, and the significance level is accepted as 0.05. The analysis of the data has not carried out on the mean values of the scale items, but on the total scores of the sub-dimensions of the scales and the total scores of the scales. In addition, the correlation coefficient between the variables has been calculated. Regarding the correlation coefficient, 0.01 and 0.05 significance levels are determined. The correlation coefficients are determined as 0-0.3 weak correlation, 0.3-0.7 moderate correlation, and low correlation between 0.7 and 1.0 (Büyüköztürk, 2019).

3. Findings

In this section, the data obtained as a result of the research conducted to evaluate the relationship between pre-service teachers' online self-regulation skills and cognitive emotion regulation skills and the findings obtained in line with these data are included.

3.1. Analysis results of gender and department type variables of online self-regulation and cognitive emotion regulation skills

In order to determine whether the online self-regulatory and cognitive emotion regulation skills of pre-service teacher differ according to gender, the t-test is applied and the findings are shown in Table 3 and Table 4.

Table 3: t-Test Results for Independent Groups on Scores from Online Self-Regulatory Learning Scale by Gender

		n	M	S	sd	t	p
All of the Scale	Female	309	80.8932	15.54042	432	3.138	**.002**
	Male	125	75.5440	17.34633			

*p≤ .05

When Table 3 is examined, it is seen that there is a significant difference at p≤.05 in favor of female teacher candidates in the whole scale (M=80.89; t=3.138) according to the gender variable.

Statistical information on the differences in the cognitive emotion regulation skills of teacher candidates according to the gender variable is given in Table 4.

Table 4: t-Test Results for Independent Groups on Scores from the Cognitive Emotion Regulation Scale by Gender

Sub-dimensions		n	M	S	sd	t	p
Self-blame	Female	309	12.7346	3.44542	432	2.221	.027
	Male	125	11.9440	3.13231			
Acceptance	Female	309	13.6537	3.36036	432	-.526	.599
	Male	125	13.8400	3.28093			
Rumination	Female	309	16.2071	3.18618	432	2.162	.031
	Male	125	15.4560	3.49540			
Positive refocusing	Female	309	12.8220	2.94054	432	-1.253	.211
	Male	125	13.2080	2.81498			
Refocusing on planning	Female	309	16.1036	2.93694	432	-.428	.660
	Male	125	16.2400	3.18109			
Positive reappraisal	Female	309	15.6537	3.46782	432	1.547	.123
	Male	125	15.0800	3.57771			
Putting into perspective	Female	309	14.2751	3.08516	432	2.767	**.006**
	Male	125	13.3520	3.29774			
Catastrophizing	Female	309	10.3107	4.09473	432	-1.378	.169
	Male	125	10.9120	4.17368			
Blaming others	Female	309	10.7961	3.47447	432	-1.269	.205
	Male	125	11.2640	3.48301			

*p≤ .05

When Table 4 is examined, it is seen that there is a significant difference at p≤.05 in favor of female teacher candidates in the sub-dimension “Putting into Perspective” (M=14.27; t=2.767) according to the gender variable. It was observed that the mean scores of the sub-dimensions of self-blame, acceptance, rumination, refocusing on planning, positive refocusing, catastrophizing and blaming others did not differ significantly according to gender variable (p≤ .05).

3.2. Is there a significant relationship between online self-regulatory learning and cognitive emotion regulation skills?

Correlation analysis is applied to the data of pre-service teachers (n=434) participating in the research and the findings are presented in Table 5

Variables	1	2.	3.	4.	5.	6.	7.	8.	9.	10	11	12	13	14	15	16
1. VSLS -Total	1															
2. VSLS -GS	.768**	1														
3. VSLS -ES	.661**	.478**	1													
4. VSLS -TS	.746**	.473**	.344**	1												
5. VSLS -TM	.779**	.613**	.410**	.623**	1											
6. VSLS -SH	.666**	.325**	.326**	.341**	.333**	1										
7. VSLS -SA	.797**	.455**	.389**	.532**	.516**	.600**	1									
8. CERS -SB	.111*	.055	.067	.102*	.073	.025	.163**	1								
9. CERS -A	-.020	-.061	-.091	-.028	-.034	.025	.092	.419**	1							
10. CERS -R	.167**	.097*	.036	.063	.095*	.148**	.283**	.495**	.344**	1						
11. CERS -PREF	.260**	.222**	.124**	.161**	.183**	.236**	.214**	-.117*	.020	-.063	1					
12. CERS -RPL	.390**	.342**	.263**	.192**	.265**	.338**	.310**	-.058	.093	.169**	.369**	1				
13. CERS -PREA	.341**	.266**	.248**	.223**	.185**	.289**	.282**	-.101*	-.010	.076	.419**	.611**	1			
14. CERS – PP	.242**	.167**	.157**	.191**	.115*	.201**	.227**	.201**	.196**	.207**	.326**	.285**	.527**	1		
15. CERS -C	-.089	-.071	-.159**	-.008	-.036	-.078	-.043	.398**	.300**	.328**	-.104*	-.268**	-.371**	-.053	1	
16. CERS -BO	.039	-,014	-.051	.026	-.004	.096*	.111*	.186**	.193**	.294**	-.016	-.049	-.136**	.066	.507**	1

**p<0.01; * p<0.05 n = 434; VSLS: Online Self-Regulatory Learning Scale, CERS: Cognitive Emotion Regulation Scale

According to the results of the analysis, it has been found to have positive meaningful weak correlations between the total score of the Online Self-Regulatory Learning Scale (VSLS) and self-blame (r=.11, p<0.05), rumination (r=.167, p<0.01), positive refocusing (r=.260, p<0.01), and putting into perspective (r=.242, p<0.01) sub-dimensions of the Cognitive Emotion Regulation Scale (CERS). There is a moderate positive correlation between refocus on planning (r=.390, p<0.01) and positive refocusing (r=.341, p<0.01). When the relationships between refocus on planning sub-dimension of the cognitive emotion regulation scale and the online self-regulatory learning scale has been examined, it is found a moderate positive correlation was determined on the goal setting (r=.342, p<0.01), searching for help (r=.338, p<0.01) and self-assessment (r=.310, p<0.01).

4. Discussion

This research was conducted to determine the relationship between pre-service teachers' online self-regulatory learning skills and cognitive emotion regulation skills. When the findings regarding whether online self-regulatory learning skills differ according to the gender variable, it is seen that there is a significant difference in favor of female pre-service teacher in the whole scale. When the sub-dimensions have been examined, significant differences have also found in the sub-dimensions of "environment structuring", "task strategies" and "time management". According to these results, it has been determined that female pre-service teachers are prefering strategies like being able to work in more comfortable environments, not causing distraction, choosing more productive working environments, reading the teaching material aloud, taking notes, etc. and using more efficient strategies like using time more effectively, and working in a more planned manner than male pre-service teachers. According to these results, it can be argued that female pre-service teachers can make more self-regulation than male teacher candidates, and they tend to be more organized and planned. In the literature, there are studies of different results on self-regulated learning (Zimmerman and Martinez-Pons, 1990; Israel, 2007; Temizsiz and Demiralp, 2012. Güler, 2015). In addition, it is possible to find research related to online self-regulatory learning and supporting the current research. Tülübaş (2022) obtained similar results in his research. In his study, it was found that female pre-service teachers' self-regulated online learning skills were higher than male teacher candidates. Özdemir and Önal (2021), in their study with 353 pre-service teachers, determined that female pre-service teachers' self-regulation skills in online learning are better than male pre-service teachers. Liu et al. (2021), in their study with 400 high school students, found that female students outperformed males in online self-regulated learning. In the study conducted by Artsın et al. (2020), it was found that the self-regulated learning levels of female students in distance education lessons were higher than male students. In the literature, there are also studies with results contrary to the results of the current research. In the study of Kulusaklı (2022), it was determined that there are no significant differences between female and male teacher candidates. In the study conducted by Ercoşkun and Gündoğdu (2020), it is determined that there is a significant difference in favor of

male teacher candidates in terms of self-regulation skills. Zhao et al. (2014) revealed that male students' self-regulated learning skills were higher than female students. In his research, Tümen Akyıldız (2020) determined that male students' self-regulated learning levels are higher than female students in online learning environments. It is important to teach self-regulation strategies so that female and male teacher candidates can benefit more effectively from online learning environments, which have begun to take more place in the learning and teaching process with the Covid-19 global epidemic. They need to have self-regulation skills so that they can adapt to the change in learning environments, especially to the changes in online learning.

When the cognitive emotion regulation skills of the pre-service teachers were examined according to the gender variable, it was determined that there was a significant difference at $p \leq .05$ in favor of female teacher candidates in the sub-dimension of "Putting in perspective" ($M=14.27$; $t=2.767$). According to this result, it was determined that female pre-service teachers thought "everything could have been worse, others faced worse events, their last experience was not as bad as the other ones, and there were worse things in life" more than male pre-service teachers. There are also studies supporting the current research in the literature. Ataman (2011) found in his study that women use the strategies of rumination and putting into perspective more frequently than men. Zlomke and Hahn (2010), found that men and women frequently used the strategies of positive reappraisal, refocusing on planning, and putting into perspective; and after controlling for participant age and specific life events experienced, it has detected that there was a significant difference between men and women in the use of cognitive emotion regulation strategies. The sub-dimension of putting it into perspective enables the event to be compared with other experienced events, thus reducing the negative emotion. It includes thoughts that worse could happen (Garnefski et al., 2001). Garnefski et al. (2001) defined some of the cognitive emotion regulation strategies as positive and some as negative cognitive emotion regulation strategies. Positive refocusing, refocus on planning, positive reappraisal, putting into perspective, and acceptance are positive cognitive emotion regulation strategies; self-blame, blaming others, rumination, and catastrophizing are mentioned as negative cognitive emotion regulation strategies.

It can be said that female pre-service teachers are in an effort to reduce negative emotions compared to male pre-service teachers. It can be thought that this situation arises from the individual, social, cognitive and affective differences of people and the situation experienced with the Covid 19 global pandemic. This situation can also be attributed to the characteristics of the sample group. For this reason, it is thought that it would be useful to examine both online self-regulatory learning and cognitive emotion regulation on different sample groups. In addition, the reasons why men and women choose different cognitive emotion regulation skills can also be investigated. Cognitive emotion regulation is important for teachers' well-being. For this reason, it is recommended to examine the relationship between various cognitive emotion regulation skills and other teaching-related issues.

The role of emotions in online self-regulatory learning is becoming increasingly important. More research is needed to understand the role of emotions in self-regulation. In this way, it can be better understood how emotions and emotion regulation affect motivation, learning and self-regulation. Emotion regulation attempts help us achieve our goals by influencing the type of emotions and the intensity and timing of emotional experiences. From this point of view, affective regulation should include flexible, situation-sensitive and performance-enhancing strategies. Self-regulation skills enable students to achieve their goals and continue to develop cognitively and personally.

In the current study, when the relationships between refocus on planning sub-dimension of the cognitive emotion regulation scale and the online self-regulatory learning scale were examined, moderate positive correlation was determined between goal setting ($r=.342$, $p<0.01$), searching for help ($r=.338$, $p<0.01$) and self-evaluation ($r=.310$, $p<0.01$). In the studies conducted, “refocusing on planning” was the most frequently reported strategy as a cognitive emotion regulation strategy (Garnefski et al., 2001). Goals are important for discussion of emotions and affective regulation. Goals provide “direction” in self-regulation. It is necessary to determine where the behavior should be directed, where the individual is and where he would like to be. Part of the self-regulation process involves making comparisons between goals and where the individual perceives himself. (Schutz, 1991) These comparisons provide opportunities for emotions and emotional regulation during self-regulation. Strategic planning, assistance and therefore evaluations are needed to achieve goals. Assessments in the activity setting

provide a context for the emergence of emotions, emotional regulation and self-regulation of behavior, and activities.

Self-regulation skills enable students to achieve their goals and continue to develop cognitively and personally. To achieve effective learning in an online environment, increasing students' self-regulation skills is important in designing online education. In particular, students should be provided with preparation before participating in online learning, including regulating their mood and structuring the environment before participating in online classes. The most important exam for a teacher or educator for the success of distance education is the students. In the compulsory digital transformation experienced due to the pandemic, students who have fixed ideas face difficulty in adapting to changes, while students who are open to development and change have quickly adapted to a new learning environment (Pokhrel & Chhetri, 2021).

Effective students who use their self-regulation skills effectively and who are academically successful can self-regulate their learning. These students use cognitive strategies and have high academic self-efficacy and motivation. They can use their metacognitive skills in various academic tasks, but not all students are capable of self-learning. Many students fail to use cognitive strategies, they are unmotivated. In particular, they receive little or no support from their classmates or teachers. In such a case, online / web-based environments can help them learn. Students can access unlimited amount of information at any time thanks to web-based environments. They are free to work at their own pace and can review information that they are curious about and/or find interesting. However, the nature of teaching in many web-based environments involves independent learning that requires a high level of self-regulation by students. Accordingly, students—especially those with less self-regulation—can benefit from directions that promote cognitive strategy use, motivation, and metacognitive processing. It is important in terms of gaining self-regulation skills in the classroom environment from a very young age, to encourage students to set goals, to choose strategies and to use them, to enable them to self-regulate by monitoring their performance and continuously reflecting their learning outcomes over a long period of time. (Zimmerman, 2008). Self-regulation works through three areas of psychological functioning fundamental to learning: cognitive (eg, learning strategies), motivational (eg, self-efficacy, task value), and metacognitive (eg, self-monitoring and self-reflection) (Bandura, 1993; Hong, Peng and Rowell, 2009; Trautwein and Köller, 2003). These three areas of self-regulation work cyclically, where mastery of a task depends on one's beliefs in one's abilities and expectations for success.

Under the assumption that students are innate decision-makers, self-regulated learning can happen anywhere. However, the decisions students make about regulating learning can promote or hinder achievement and other outcomes (Winnie, 2017; Ramdass, & Zimmerman, 2011). He states that self-regulation skills such as time management, setting goals, effort to complete tasks, persistence, and self-monitoring of one's performance are not only important for academic success, but are also key components in the lives of successful professionals (Zimmerman, 1998). Zimmerman (2002); he states that, for all this to happen, teachers should be aware of the importance of self-regulatory skills in learning and from the start, teachers should play an important role in regulating students' learning by setting goals, managing the time they allocate to tasks, and instilling effort and expectations for homework completed in the classroom. He says that teachers should gradually reduce this support as students experience success. He emphasizes that in the absence of the teacher, students will take the responsibility of regulating their own learning and decide where, when, how, why and what to do the assigned homework. Especially including self-regulation skills in curricula and graduation of pre-service teacher by knowing both self-regulation skills and cognitive emotion regulation skills will contribute to their well-being throughout their teaching life and thus to be effective teachers.

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