How Gender Shapes Students' Learning Strategies in the Post-Pandemic Era

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Abstract

This research aims to see the differences in Self Regulated Learning (SRL) skills in female and male students at Soe City High School, South Central Timor Regency. The sample consisted of 75 male students and 103 female students. The sampling technique in this research used the Slovin formula. The instrument used to measure Self Regulated Learning consists of 39 question items declared valid and received a reliability test value of 0.955. The results show that the self-regulated learning skills of female students are higher than that of male students. With the results, the mean value of SRL skills for female students amounting to 117.13, and for male students amounting to 104.92.

Keywords: *Gender; Self-regulated; Post-pandemic Era*

Introduction

Since the pandemic, the Indonesian government has issued a Circular Letter on the implementation of Education Policy during the Emergency Period of COVID-19 (Kemendikbud, 2020). The pandemic has changed learning methods at the high school level. The implementation of Face-to-face learning is carried out online. UNESCO explained that more than 1.5 million or 90% of the world's student population was affected by school closures (Pursitasari & Heliawati, 2022). As a result, there is a change in learning habits. One of the habits that has changed is self-regulation in online learning. The provision of online learning is carried out from home while still following the schedule like face-to-face learning (Merdiasi & Kristen, 2021). As the pandemic passed, at the end of 2022, the government through Minister of Home Affairs Instructions Number 50 and 51 of 2022 dismissed the Enforcement of restrictions on community activities (PPKM). With the termination of PPKM, learning activities are also automatically transferred back to face-to-face or offline learning.

In order to keep up the rhythm of online learning, students need independence in regulating or organizing their own learning methods. This self-regulation or regulation is known as Self-regulated Learning (SRL). SRL is a learning process that involves thinking, motivation, and behavior aimed at achieving the goals of a learning process that has been received (Hardhito, 2016). SRL is explained as a skill that can help students to develop other necessary skills, such as organizing skill, planning, and behavior change (Yoelianita & Toga, 2022). Self-regulated learning can involve activating and maintaining cognition, behavior, and emotions to achieve learning goals (Pintrich, 2000). SRL can be cyclical and multi-component (Zimmerman & Risemberg, 1997). At least there are three SRL phases: forward-thinking, performance, and self-reflection (Zimmerman, 2000).

Students with SRL emphasize special skills, including skills in setting learning goals, implementing strategies to achieve learning goals, monitoring performance, and restructuring the learning environment to achieve learning goals (Zimmerman & Schunk, 2021). Students with better self-regulated learning have control over their learning process, such as completing assignments given by the teacher properly (Merdiasi & Kristen, 2021). Individuals who can organize and control, monitor, motivate, and have academic goals, to manage resources, and realize decisive behavior in the decision-making and implementation process during the learning process can realize Self-regulated Learning skills (Yulianti et al., 2016).

The online learning environment requires students to have higher self-regulation skills regarding their characteristics (Hong, 2021). Regarding the factors that influence the emergence of SRL skills, it is motivated by internal and external factors. Internal factors include knowledge, motivation, and abilities. While external factors are family factors, environmental factors, and peer factors (Fasikhah & Fatimah, 2013). Wu and Cheng (2019) in their study revealed that males adopted more strategic behaviors than females to overcome their disorientation during online learning. However, another study in Pakistan revealed that females have better self-efficacy in online communication than males during online learning (Rafique et al., 2021). Given the lack of consistency of the research results, empirical research needed to draw firm conclusions regarding gender differences in SRL in post-pandemic learning activities.

In Indonesia, the influence of the environment on SRL skills can be seen in the decline in students' learning motivation. The inability of students to organize or regulate their learning activities has an impact on the development of SRL skills. In line with what was conveyed by Fasikhah & Fatimah (2013), students who have high SRL are individuals who are able to organize their work, set goals, seek help when needed, use effective work strategies, manage their time to learn and have self-efficacy. Meanwhile, students who have low self-regulated learning are those students who are less able to listen, pay attention, and respond (de la Fuente et al., 2020). Evidence that the environment influences SRL skills is explained by Maison & Syamsurizal (2019) who examined the correlation between the learning environment and SRL in studying physics. Apart from the factors that have been explained, the fact that gender is one of the components that determine student independence is revealed by Virtanen & Nevgi (2010); male and female students can have different SRL skills.

In line with this opinion, Saputra et al. (2018) revealed that there were differences in self-regulated learning abilities between male vocational students and female students before the pandemic, with a tendency for female students' SRL to be higher. The difference in SRL ability does not affect the level of student motivation in achieving seriously (Yukselturk & Bulut, 2009). Online learning during the pandemic raises concerns about a decline in quality, such as low learning independence skills (Hidayat et al., 2020; Warmi & Santoso, 2020). As a consequence of its bad implementation, especially in the readiness of educators when conducting online learning. Argaheni (2020) explained that online learning without good preparation by educators will make it difficult for students to achieve learning goals because students have difficulty understanding the material. The research of Latipah et al. (2021) revealed that a lack of teacher preparation makes students not focus on the ongoing learning process and experience difficulties in carrying out assignments, resulting in procrastination, which is one of the consequences of declining SRL skills.

Another research was revealed by Enasely (2021) that high school students in Betun City, East Nusa Tenggara have low SRL, which is seen from the metacognition aspect, students who have not been able to set learning goals so that learning achievement is not optimal; or the motivation aspect, for example, students who are less diligent in learning and let learning materials at school pass by, there is no effort they make to achieve targeted learning achievements. And in the behavioral aspect, students are less able to organize their own learning both at school and at home, when faced with learning difficulties students have a tendency to remain silent, not finding out information or asking for help from teachers or the Internet that can help provide information; as well as in the behavioral aspect, students are less able to organize their own learning both at school and at home, when faced with learning difficulties students

have a tendency to remain silent, not finding out information or asking for help from teachers or the Internet that can help provide information. In addition, Syifa and Heni (2020) found that gender differences can cause physiological and psychological factors between males and females, including in the aspects of intelligence, interest, memory and emotions, so it is concluded that there is a positive and significant influence of gender on self-regulated learning. By referring to some of these factors, this study tries to reveal the level of SRL of male high school students and female students after the pandemic.

Research Method

This research used comparative design. Comparative aims to compare the similarities and differences between more than one object, the research target (Sari & Deliana, 2017). In this research, a comparison of self-regulated learning skills of third grade students in SMA X Soe City, South Central Timor district was conducted. This research uses a self-regulated learning instrument via Google Form, which is assessed based on a Likert scale (score 1 to 5), consisting of 39 question items whose validity and reliability were tested with a coefficient of 0.955, high category reliability.

The sample in this study consisted of 178 SMA X students in Soe City, South Central Timor District. The sample consisted of 75 male students and 103 female students. The sampling technique used in this research was the Slovin formula. The instrument used is the Self-regulated Learning Scale, which consists of 39 question items that have been previously tested for validity and declared valid, and a reliability test that shows a coefficient of 0.955. This puts it in the high reliability category. Data analysis was carried out using SPSS 26 with the Independent Samples Test formula.

Results

The data was processed with SPSS using the Independent Samples Test formula in the SPSS 26 application. The aim was to see if there was a comparison of self-regulated learning skills between male and female students.

In Tables 1 and 2, the F-score obtained is 2.307 with a significance of 0.131, which means that it is more significant than 0.05, which means that the group variance is homogeneous. Thus, the homogeneity requirements for comparative analysis are met. In addition, the results of data analysis obtained a calculated t coefficient of -4.980 with a probability of 0.000, which, compared with 0.05, means that the probability value is smaller than 0.05, so there is a difference in the self-regulated learning ability of male and female students.

Table 1

Group Statistics

	JK	N	Mean	Std. Deviation	Std. Error Mean
SRL	laki-laki	74	104.92	17.709	2.059
	perempuan	104	117.13	14.888	1.460

Table 2

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
SRL	Equal variances assumed	2.307	.131	-4.980	176	.000	-12.206	2.451	-17.044	-7.368
	Equal variances not assumed			-4.837	139.821	.000	-12.206	2.524	-17.196	-7.216

The results indicate that female students possess higher self-regulated learning skills than male students. This is evident from the mean value of self-regulated learning skills for female students, which is 117.13, compared to the mean value of 104.92 for male students.

Discussion

According to the research results, there are differences in self-regulated learning (SRL) between male and female students at SMA X in Soe City, South Central Timor District. Specifically, female students exhibit higher SRL skills than their male counterparts. This finding is consistent with previous studies conducted by Syaifuddin et al. (2022), Faruq et al. (2021), and Syarifah et al. (2016), which also reported higher SRL skills among female students. Good self-regulated learning (SRL) skills are characterized by increased academic abilities. Several factors, including intelligence, personality, school environment, and home environment, influence a person's success in achieving optimal performance. In addition, self-regulated learning also plays a crucial role in students' success in achieving optimal achievement. According to Syifa and Heni's (2020) research findings, gender and self-regulated learning have a positive and significant impact on academic achievement when considered together.

Zimmerman & Martinez-Pons (1988) showed that there is an influence between independent learning (self-regulated learning) and students' grade achievement. Chan and Kan (2017) discovered a significant correlation between learning approaches and gender on academic achievement. Saraswati's (2017) research indicated that female students typically experience academic improvement. Female students are often perceived as being more thorough, organized, and skilled in managing their learning environment due to gender stereotypes. As a result, they may be more attentive to input and more sensitive when listening. Bijarano (2015) reported that female students tend to use self-monitoring, goal setting, planning, and structuring their learning environment more often than male students. This leads to better utilization of practice, organization, metacognition, time management skills, elaboration, and effort, resulting in higher academic achievement for females.

Social and environmental factors can contribute to the development of a person's self-regulated learning (SRL) skills (Rachmah, 2015). Female students may have a more supportive environment as they tend to be more open about their problems, particularly in regards to learning. Dewi and Minza (2016) noted that women not only have friends, but also close friends who are more open and supportive of each other. Female students can be motivated by their peers to achieve academic goals. This information is supported by Kaye-Tzadok et al. (2017). They value their friendships and are willing to help each other when experiencing learning difficulties, such as completing assignments or understanding learning material.

Compared to female students, male students tend to develop poor self-regulated learning (SRL) skills due to the influence of their male peers. Imansyah and Setyawan's (2019) research explains that conformity to male friends often leads to procrastination, which hinders the development of SRL skills. It is important to note that procrastination is a sign of poor SRL skills. Several studies have shown that higher self-regulated learning (SRL) is associated with lower levels of procrastination (Fathoni & Indriwati, 2022; Lubis, 2018; Maryam et al., 2019). Alhadi et al. (2018) have shown that male and female students may have different tendencies in self-regulated learning abilities. This study aims to identify such differences at the vocational school level, using the Self-regulated Learning Scale, which consists of 43 statement items and has high reliability. Gender may be a factor that influences the level of self-regulated learning.

Previous research has shown significant differences in the level of self-regulated learning between male and female students. Research findings suggest that male students tend to focus on learning performance goals and use more accessible learning strategies, such as memorization, compared to female students. One indicator that suggests female students have higher levels of self-regulated learning than

male students is their higher academic achievement in school. This statement is supported by a study which found that female students tend to perform better academically than male students (Bijarno, 2015).

According to Saputra et al. (2018), students' awareness of their level of self-regulated learning is crucial for academic success. The research suggests that female vocational school students possess better self-regulated learning skills than their male counterparts. Self-regulated learning is a vital factor in students' academic achievements. It is crucial for students to comprehend and monitor their level of self-regulated learning and make adjustments if it is insufficient. This is due to the fact that self-regulated learning has a substantial impact on academic achievement.

Conclusion

Self-regulated learning involves thoughts, motivation, and behavior aimed at achieving the goals of the learning process. A study conducted at SMA X in Soe City, South Central Timor district found differences in self-regulated learning between male and female students. The mean value of self-regulated learning skills for female students was 117.13, while for male students it was 104.92. One contributing factor is that girls tend to use self-monitoring, goal setting, planning, and structuring their learning environment more often than boys.

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