

Self-Regulated Learning of Junior High School Students to Predict Online Learning Achievement

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Abstract. This research is a quantitative ex-post-facto study to explain the SRL profile of junior high school students in online learning. The investigation commenced three days after the establishment of the Covid-19 pandemic. The respondents were taken through random sampling at several schools implementing online learning after the designation of this mode by the MOEC on March 15, 2020. The schools are located in Yogyakarta, Indonesia. The data were collected via Google Form. The instrument used was a questionnaire with a scale of 1 to 5 (from strongly disagree to strongly agree) consisting of planning, monitoring, controlling, and reflecting aspects. There were two analytical techniques used, i.e., descriptive statistics and Two-way ANOVA. The results of this study indicate that students have moderate-high SRL. It means that they will succeed in their learning, but they need assistance and mentoring from teachers to improve SRL. Several mentoring strategies can be applied to manage active learning. The teachers should explicitly include the process of mentoring to strengthen the students' SRL. Teachers need to be aware that online learning is not only to master certain subject matters but also to increase SRL.

Keywords: *self-regulated learning, online learning, learning strategy, active learning*

INTRODUCTION

The rapid spread of the COVID-19 has struck nearly all countries around the globe. This widespread occurrence was taken genuinely by different divisions counting within the world of instruction. Indonesia, a nation with a huge population, has issued different arrangements concerning teaching-learning activities. All schools in Indonesia are encouraged to execute instructions by utilizing ICT. Approaches in this crisis positively influence people's behavior. Teachers are motivated to change the traditional teaching approach to online learning. Different applications

are introduced to be learned so that they can be applied in educational setting. There are lots of positive thinking among teachers within the usage of online learning. This learning suggests the students make enough preparation before joining in the learning process. Numerous research suggests online learning presence [1],[2].

Unfortunately, students ended up with a huge number of academic assignments than that during learning process in the classrooms. This condition happens due to most teachers still do not have the capacity to deal with online learning during the current condition. On the other hand, it is fundamental to see whether or not the students have the ability to oversee themselves. Therefore, teachers should be ready to do online learning, Especially since they are currently confronting with a new environment in education. In this circumstance, self-regulated learning (SRL) can be used as one of the learning success indicators.

SRL is a significant concept within learning. From a few writing ponders around SRL, this concept alludes to be considered as a vital adjustment of the learning to alter cognitive, motivational, and behavioral results [3],[4]. Within the setting of instruction and learning, self-regulation learning refers to the proactive application of self-directive processes to achieve goals, to memorize aptitudes, or to oversee enthusiastic responses [3],[5],[6]. In online learning, in which understudy centers get to be imperative, SRL could be treated as an extraordinary consideration by teachers for the success of the learning process [7],[8].

Self-regulation in online learning is the capacity to uncover one's considerations, sentiments, and behaviors to attain learning objectives by utilizing online applications and accessible highlights. SRL is a fundamental concept, so students have freedom in learning by using data from the web [9],[10]. Self-regulation is the ability of an individual to preserve or alter his or her identity to take ethical values in society [11]. It is also related to exploiting their competence in dealing with the internet [12]. The angles of SRL are metacognition, inspiration, and agreed activity. Solid self-regulation stages can

empower the accomplishment of the expected learning goals [13].

Basically, the method of self-regulation is characterized as the exercises of people in arranging their activities. It consists of observing the plans, making changes to remain on track, and reflecting on what works and what can be progressed in the future [6],[14],[15]. One of the prominent features in SRL is the Free Administrative Developmental Survey. This survey measures the discernment of students' capability in four significant components of self-regulation: planning and articulating what the students need to realize; promptly checking advance and unsettling influences related to the understudy objectives; controlling changes by actualizing particular procedures when things do not go as arranged, and reflecting what works and what the students can do better in the future [3].

The capacity to oversee oneself is a crucial competence in accomplishing learning objectives. Students who have high ability in SRL tend to be more effective in finishing the learning objectives [16],[17],[18]. In online learning, where learning control is higher in students themselves, SRL gets to be a critical issue to consider. This inquires about a quantitative graphic ponder to clarify the SRL profile of junior high school students in online learning during Covid-19 periods.

METHOD

The respondents were taken randomly at a few schools executing online learning after the assignment of this mode by the Ministry of Education and Culture of Indonesian on March 15, 2020. The information was collected using Google Form filled out by 7th to 9th-grade students through instructors carrying out online learning and willing to get included for this information collection intentionally. There were 1432 valid respondents of junior high school students. They were from 6 different schools in a city in Indonesia. Figure 1 shows the respondent structure based on Grade and Schools.

	Value Label	N	Percent
Grade	7th grade	560	39.1
	8th grade	431	30.1
	9th grade	441	30.8
School	School 1	228	15.9
	School 2	707	49.4
	School 3	143	10.0
	School 4	181	12.6
	School 5	127	8.9
	School 6	46	3.2

Figure 1. Respondent Structure

The instrument used was a survey with a scale of 1 to 5 (from strongly disagree to strongly agree).

The self-regulation survey was found to be profoundly dependable (22 things; $\alpha = .896$) as has been tried out previously. The planning subscale comprised of 5 items ($\alpha = .632$), the monitoring subscale comprised of 6 items ($\alpha = .704$), the controlling subscale comprised of 6 items ($\alpha = .744$), and the reflecting subscale comprised of 5 items ($\alpha = .682$).

The analytical techniques are descriptive statistics. Descriptive data (average and standard deviation) were used for each factor in comparing the profiles among schools.

RESULT & DISCUSSION

The data obtained through the Google Form filled out by students participating in the online learning reveal SRL profiles. There are three analysis seen in this section, namely the description of each school's SRL profile, the influence of independent variables on SRL, and the interaction of independent variables. The descriptive result is presented in Figure 2.

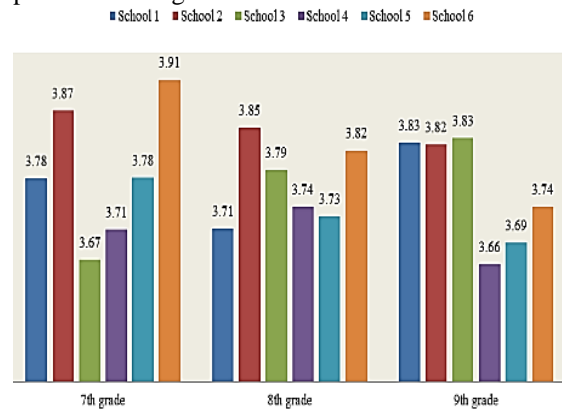


Figure 2: The comparison of SRL

From Figure 2, at each grade, there are differences among schools. General trends regarding differences in both grade and school variables are relatively unpredictable. For example, the highest SRL at 7th-grade students is at School 6, but for 8th-grade students is at School 2, and for 9th-grade students is at School 3. Therefore, Two-way ANOVA needs to be applied to find out the effect of these two variables.

Grade has no effect on SRL (Sig. = .860; p-value = .05), whereas School influences SRL (Sig. = .004; p-value = .05). From this ANOVA, it can also be seen whether there is an interaction between Grade and School. The results of this interaction analysis are shown in Figure 3.

Based on ANOVA outcomes, there is an interaction between the school and the grade (see Figure 3). In certain schools, SRL was found to be low in 7th-grade but high in 9th-grade. In contrast, in other schools, SRL was high in 7th-grade but

low in 9th-grade. These findings indicate an interaction between the two independent variables.

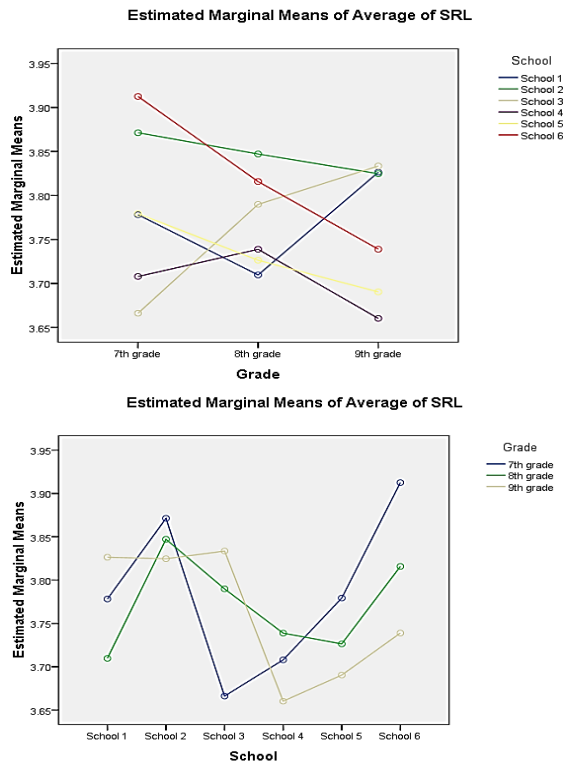


Figure 3: Interaction between SCHOOL*GRADE

SRL, both in online learning and routine learning, which is offline, alludes to the capacity to get it and control the learning environment. The function of SRL incorporates the endeavors to set objectives (Planning), self-monitoring (Monitoring), self-instruction (Controlling), and self-reinforcement (Reflecting) [4],[19],[20]. SRL cannot be utilized for measuring scholastic execution. The reason is that SRL is more related to mental capacities or aptitudes in accomplishing an objective that can be related to different things. SRL can be created through an advanced preparation that emerges from guided hone and criticism so that the behaviors will alter mental capacities with unused aptitudes and propensities. In online or virtual learning, students who have a fabulous SRL will be able to bargain with the advancement of a learning environment that is diverse from their natural world. With a high SRL, the students can discover, select, utilize any data from the internet.

The capacity of SRL will decide learning results, instructors, and school policymakers to consider, including the method of helping in fortifying the SRL within the learning plans arranged for online learning. It is fundamental to decide the techniques that energize students to apply when managing virtual data. The exercises to stimulate SRL to incorporate clarifying the benefits and significance of SRL. Instructing SRL

procedures expressly, and making a difference on when and how to utilize SRL when managing with online data for their learning [3],[17]. Through these exercises, it can be anticipated that there will be a change of SRL among junior high school students. Undoubtedly, all of a sudden connected advanced innovation due to Covid-19 relief will influence students' day by day exercises.

Based on e-learning courses, there are two essential focuses to empower learning. Setting and advising the learning destinations offer assistance to the learners for learning preparation. Also, inquiring the learners to compose their criticism is important. By doing it, they can self evaluate what they have learned and accomplished, how the students are feeling, and what challenge or trouble they encounter amid the learning session. At the same time, the instructor can also get the input to assess the program and the degree of achievement or disappointment in encouraging the learners to achieve the learning goals. The way the instructors organize online learning can have significant impacts on the capacity of students to be independent learners. The vital variables in online learning are not as it was conveying the subject matters or problem-solving; moreover, educating students on how to memorize. When joining an e-course, the teacher provides "happy online learning" before the e-learning sessions.

Besides, that was exceptionally accommodating to form the understudy mindful that the educator communicated with a human instructor through a machine, i.e., computer. This movement can be done by deciding a specific approach to an issue. One of the methods is conducting both synchronous and nonconcurrent discoursed to create and assess shared thoughts. The exchanges are almost how the learning preparation or problem-solving in online learning. When choosing a learning technique, clarify the reason why this approach is used in online learning. Students learn to use materials and do not know which procedure is best to apply. They may lose inspiration if they are not prepared and energized [4]. Online communication to help the students getting this idea is essential. The students could find it through a specific action, inspiration, or self-satisfaction [21].

CONCLUSION

Online learning is carried out as one of the solutions in education during the spread of Covid-19. However, some challenges are faced by both teachers and students during online learning activities. On the other hand, students' SRL capacities are thought to be one of the important factors for the success of online learning. The research results revealed that junior school students require assistance and mentoring from teachers to

deal with SRL. In fact, a few mentoring methodologies can be connected to oversee dynamic learning. Within the learning plan, the teachers should incorporate mentoring session to reinforce the students' SRL. Teachers have to consider that online learning is not to ace certain subject, but more to fortify SRL. This mindfulness could be driving to a long-term effect on the students' learning behaviors.

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