

Artikel_The Analysis Of Self
Regulated Learner Of
Acceleration Class At Secondary
School In Natural Science
Subjects Based On
Gender_Novia Dwi
Rahmaningtyas_198420100002.

doc

Submission date: 02-Aug-2023 04:04PM (UTC+0700)

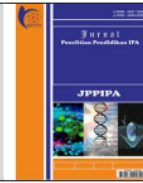
Submission ID: 2140353090

by

File name: Artikel_The Analysis Of Self Regulated Learner Of Acceleration Class At Secondary School In Natural Science Subjects Based On Gender_Novia Dwi Rahmaningtyas_198420100002.doc (442K)

Word count: 6705

Character count: 35821



THE ANALYSIS OF SELF REGULATED LEARNER OF ACCELERATION CLASS AT SECONDARY SCHOOL IN NATURAL SCIENCE SUBJECTS BASED ON GENDER

Novia Dwi Rahmangingtyas¹, Septi Budi Sartika^{2*}, Nuril Maghfiroh³

^{1,2}Program Studi Pendidikan IPA, Fakultas Psikologi dan Ilmu Pendidikan, Universitas Muhammadiyah Sidoarjo, Jawa Timur, Indonesia.

³Guru IPA SMP Negeri 1 Sidoarjo, Jawa Timur, Indonesia.

DOI: <https://doi.org/10.29303/jppipa.v6i1.264>

Article Info

Received:

Revised:

Accepted:

Correspondence:

Phone: +62.....

Abstract: The purpose of this research is to describe the self-regulated learner (SRL) of male and female accelerated students. The research method used is qualitative phenomenology research conducted at SMP Negeri 1 Sidoarjo. The research focused on one male student and one female student of accelerated class. Data collection techniques used in the research included observation, questionnaire and interview techniques. From the data obtained, data analysis was carried out using three stages including data reduction, data presentation and conclusion drawing. The results of the research obtained SRL of male and female students lead to academic and non-academic fields, and have unequal abilities in science subjects. Male SRL indicators that are not achieved are organization and seeking help while female SRL indicators that are not achieved are anxiety tests. The factor that influences the non-achievement of SRL indicators is that students are less able to manage organization, seek help and test anxiety on themselves. Future research is expected to develop learning tools to train students' SRL.

Keywords: Acceleration Class, Gender, Natural Science, Secondary School, Self Regulated Learner

Citation: Rahmangingtyas, Novia Dwi., Sartika, Septi Budi., & Maghfiroh, Nuril., (2023). *The Analysis of Self Regulated Learner of Acceleration Secondary School in Natural Science Subjects Based on Gender.*

INTRODUCTIONS

Self regulated learner (SRL) is a person's ability to regulate oneself to properly monitor feelings, thoughts, behavior, in achieving learning goals (Khoerunnisa et al., 2021). SRL owned by a student, one of which is learning, good students can manage their study time and complete their assignments on time (Ulum, 2016). SRL in students is required to actively learn, know the strengths and weaknesses in themselves, and be able to learn independently to find out the knowledge and information learned.

Zimmerman dan Schunk, (Mauludin & Nurjaman, 2018) define self-regulated learning in terms of self-generated thoughts, feelings, and actions, which are systematically oriented towards achieving students' own goals. SRL includes in the reciprocal and iterative interactions that occur between different components, and third, linking learning and achievement directly with oneself, namely one's goal structure, motivation, willpower, and emotions. SRL is the ability of students to control their learning through motivational beliefs in themselves and organize good learning strategies.

Email: septibudi1@umsida.ac.id

SRL in the 21st century has an important role in supporting education. The 21st century is an era of science and technology discovered over the past 5 decades that has been achieved by humans 2500 years earlier (Dinata et al., 2016). Science balanced with extraordinary technology is balanced and able to improve quality education for teachers and students in Indonesia. The 21st century skills include critical thinking skills, problem solving, collaboration, communication and creativity (Zubaidah, 2020).

The National Education Standards Agency explains that the ideals of the Indonesian nation are to make a nation that is prosperous, honorable, and equal to other nations (Junanto & Afriani, 2016). The achievement of good education and being able to keep up with the times in the 21st century starts from the world of education, especially in schools, good human resources, students and the encouragement of the people around them (Abdillah & Hamami, 2021). Good human resources are independent humans. Independence is a conscious effort made to shape character, developed, one of which is with independent character values (Dwi Rita Nova & Widiastuti, 2019). Students' independence in learning is seen from SRL in personal, behavior, and environment aspects (Oktariani et al., 2020). The three aspects of SRL are interconnected in independence, performance and changes that have an impact on learner achievement.

SRL in learners is able to be active metacognitively, motivation and learning behavior. Education in schools includes male and female students so that the abilities possessed by students are not the same (Lidiawati, 2016). SRL has a good influence in the world of education to find out the differences in abilities between male and female students. Student achievement between men and women has a difference when viewed from academic and non-academic, this is able to know the SRL possessed by male and female students. SRL in terms of gender, research that has been found by Hargis, explains that individuals who have high SRL in students tend to study better, diligently, and can manage time efficiently and get good grades (Nahdi, 2017).

Research on male accelerated students has been conducted that male students are more likely to be in the fields of science technology and mathematics, including abilities that are owned including cognitive abilities, relative cognitive strength, interests or occupational preferences. A student's intelligence affects the ability to adapt or adjust to the environment (Patty et al., 2017).

SRL research conducted by (Fatimah, 2019) explains that female students have high regulation, specifically female students are more prominent in the

fields of calculation or keeping records and monitoring and planning (goal setting and planning).

Accelerated students are students who have IQs above average, and learning that enforces accelerated curriculum in the study period. The importance of accelerated students in this study is to determine students' SRL by focusing on male and female gender in controlling learning, independence, organizing strategies, improving learning outcomes and achieving good academic or non-academic achievement.

Natural science learning that connects SRL in students can optimize the learning process. Science learning can be done in various ways to support student regulation by applying effective, active, and related learning strategies in everyday life. Science learning can be linked to SRL when viewed from the SRL model, namely analyzing, planning, implementing, observing, understanding, problem solving, evaluating, modifying and elaborating (Putra et al., 2019).

Research (Nugroho et al., 2022) shows that the factors that cause low SRL of secondary school students are lack of confidence, lack of exploring talents and interests, and lack of support from the surrounding environment so that it can affect the achievement of learning outcomes of male and female accelerated students. The purpose of SRL research in accelerated class at SMP Negeri 1 Sidoarjo is to describe the ability and learning strategies between male and female students. The benefit of the research is to describe how to regulate themselves in learning accelerated male and female students in natural science subjects.

The results of research on accelerated class SRL in natural science learning found that male and female students have different learning styles. According to (Alfina, 2014) menjelaskan bahwa siswa yang memiliki regulasi explains that students who have high self-regulation include the ability to plan, self-organize, regulate, and evaluate their behavior at natural science learning in secondary school.

METHODS

The research method uses qualitative research of the phenomenological type. Research in the phenomenological view understands events and their relation to people in a particular situation, for example in the study of the students studied (Nugroho et al., 2022). The research was conducted at SMP Negeri 1 Sidoarjo with research subjects including one male student and one female student in the accelerated class. Data collection techniques used in the research included observation, questionnaire, and interview techniques. Triangulation of data using triangulation techniques. From the data obtained, data analysis is

carried out using the stages of (1) preliminary study (2) literature study (3) research instrument design which includes observation, questionnaire and interview techniques, (4) validation (5) data collection, and (6) data analysis which includes reduction, data presentation and conclusion drawing. The following are the stages of research according to Miles and Huberman:

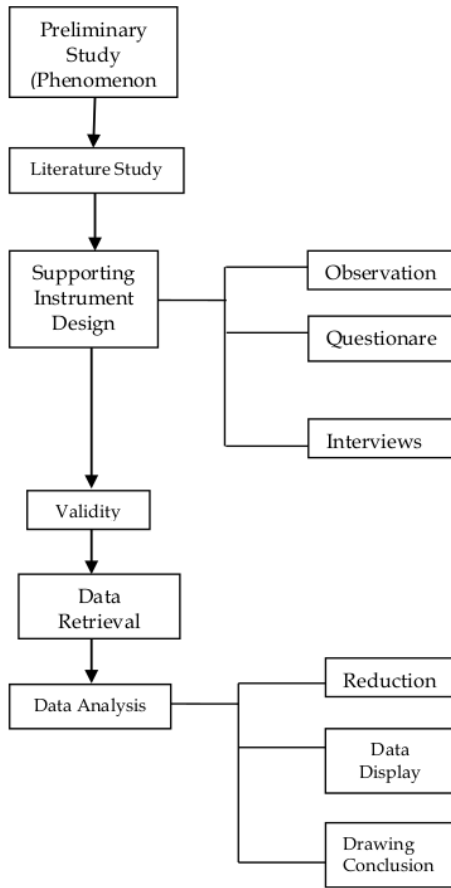


Figure 1. Stages of Data Collection

RESULT AND DISCUSSION

RESULT

1. Male SRL

Observations were made in accelerated class seven by following science learning, observations of students were made 3 times a meeting. Observations were made to describe the SRL aspects in the sub-components and criteria of students in participating in the learning that was being followed, the following table shows the results of observations on male accelerated students:

Table 1. Observations Result of Male SRL

SRL Aspect	Component	SRL Alignment
Motivational Strategy	Value Component	Observed
	Expectation Component	Observed
	Afektive Component	Observed
Learning Strategy	Cognitive Strategy and Metacognitif of SRL	Observed
	Resource Management Strategy	Observed

Based on Table 1, the results of male SRL observations can be stated that the SRL aspects, components, and sub-components of students have been in accordance with SRL indicators, male SRL is observed in all aspects of science learning, namely in the aspects of motivational strategies and learning strategies.

After observation, the next data collection technique is questionnaire technique by distributing google form links to male accelerated students, below are the results of male accelerated students' questionnaires:

Table 2. Questionnaire Result of Male SRL

SRL Aspect	Component	Category Description
Motivational Strategy	Value Component	Very True About Me
	Expectation Component	Very True About Me
	Afektive Component	Very True
Learning Strategy	Cognitive Strategy and Metacognitif of SRL	True
	Resource Management Strategy	Very True

Based on Table 2, the results of the male SRL questionnaire show that the metacognitive subcomponents of SRL are not observed in the organizational and metacognitive subcomponents of SRL, this is known from the questionnaire results which show the correct number which means that they are still less capable in the metacognitive component of SRL in science learning.

After the questionnaire technique is carried out, the next is the interview technique, following the results of the interview of male accelerated students:

Table 3. Interviews Result of Male SRL

Indicator	Question	Answers
Orientation Intrinsic Purpose	Do you prefer difficult material in all lessons? Why is that?	Because they are more challenged by difficult problems.

Indicator	Question	Answers
	Do you understand difficult material more easily than easy material? Why is that?	Because for example, the difficult rich are easier.
	Would you be happy if you could master all the material? Why is that?	Yes, I am happy because, for example, I can master all the material and apply it in the environment.
	Do you always pay attention to the questions and answers without thinking about grades? Why is that?	Because paying attention to the questions well, the grades will follow our results.
	What do you think about the grades you get being so satisfying?	Yes, satisfactory
Orientation Extinsic Purpose	What do you think about having to score above average?	I study hard to get above average grades.
	Do you always try to get good grades and compete with your friends? Why is that?	Yes, I want to get first in this class.
	Why is that? How do you demonstrate good attitudes and skills in class? Why is this the case?	With confidence
Assignment Score	Is this lesson very important for daily life?	Yes, importance
	Do you think learning is important for yourself?	It is important to increase knowledge and deepen it.
	Did you enjoy this lesson? Why?	Happy, because if natural science learns living things.
	Can you interpret this lesson outside of school? Why is that?	Yes I Can, often participate in science competitions.
	Did you enjoy the lesson? Why is that?	Yes, because for example, I like the physics of calculating.
	How do you think the material you have learned relates to your surroundings? Why is that?	I sometimes apply in the environment

Indicator	Question	Answers
Learning Confidence Control	How do you learn?	It's usually rich in memorization and voice-over and memorization and then writing again.
	Do you often have problems learning? Why is this the case?	Sometimes less thorough in working on problems.
	How did you overcome the difficult material?	Working continuously by asking the teacher.
	How would you feel if you've put all your effort into studying, but the results are nil?	Yes, keep asking the teacher.
	Do you always try to understand difficult problems in this material?	Yes, because for example, if you don't try, you don't know what the result will be.
	Do you always think positively by sticking to the material? Why is that?	Yes, I agree.
Self Efficacy for Learning Environment	How do you try to convince yourself to understand the material that the teacher conveys? Why is that?	Sometimes I also like to study at home, if school is applied, I am ready and prepared before the learning begins.
	Did you do your best in the exam? Why is that?	Already, there are still shortcomings, just be more confident.
	Have you done your best in this class? Why is that?	Yes, because I have given up all my abilities.
	How are you trying to improve your classroom skills? Why is this the case?	Yes, learning
	How do you get ahead in class?	Learn by reading and learning from other references.
Anxiety Test	When taking exams, do you always think about your friends' results? Why is that?	Yes, sometimes, for example motivating us.

Indicator	Question	Answers
	When taking tests, do you often run out of time in doing the questions?	No, I organize my time well.
	When taking a test, do you always prioritize a good score over a bad one? Why is that?	Prioritizing good grades.
	When taking a test, do you often get anxious about taking a particularly difficult test? Why?	Yes, sometimes I worry and sometimes I don't. If the question is difficult, then I ask.
	When taking tests, do you often expect cheats from your friends? Why?	No, because I try to do it myself.
Exercise	Do you have a way to understand the material that has been delivered by the teacher?	By describing the materials.
	How do you study if you don't have notes?	Search for references on Google.
	How do you remember the material you have written down and learned?	Read it aloud.
	How can you memorize this material?	By reading the notes.
Collaboration	Do you often use other sources to study?	Yes, like Google.
	Do you always connect the material from the course and the competition in your lessons? Why?	Because they have studied in courses or competitions and can understand the lessons at school.
	Do you always try to relate learning in class to life around you? Why?	Yes, I do.
	Do you often compare the learning media you get? Why?	Yes, because maybe one of the learning media has a difference.
	What if the material you get in sources and books is not the	Yes, ask the teacher.

Indicator	Question	Answers
	same as the material you learn? Why is that?	
	Do you always make the class active with your ideas? Why?	Yes, because I myself am active.
Organization	How do you master the complex material in this class? Why?	Yes, ask the teacher what is clear.
	How can you understand the material that the teacher has not conveyed?	Find it in Google.
	Do you have ways to understand the material other than using reading media? Why?	Yes, like watching lessons that have been.
	Do you often take notes to make the material easier? Why?	Yes, I often.
Critical Thinking	Do you always ask the teacher about the material?	Yes, I do
	What do you do if you can't understand the material in class? Why?	Ask the teacher what it means and how it is done.
Metacognitive SRL	If during class you often think about other things? What is your attitude?	Does not often pay attention to other things.
	If you remember the material by memorizing, what percentage do you remember? Why?	Maybe 80%-90%.
	Do you often experience confusion when the lesson starts? Why?	No, I don't.
	How do you prevent yourself from having difficulty understanding what you have learned? Why?	Asked with my teacher.
	How important is it to understand the material to be learned? Why?	It's very important to me, because if there are no lessons, I don't know anything.
	Have you ever tried to understand yourself? Why?	Because I have a happy nature in learning.

Indicator	Question	Answers
	How do you try to learn the material if the learning model is not the same as the teacher? Why?	Making question more.
	Do you often have trouble reading the material you are understanding? Why?	No, I don't.
	Do you often have trouble reading the material you are understanding? Why?	No, I don't.
	Do you always practice the problems that are in the book and that you have learned before? Why?	Yes, I do.
	What if you have studied the material well, but it is difficult to understand? Why?	No, I Can't.
	Do you often repeat problems in the material and connect them? Why?	Yes, I do.
	Do you often take notes on the blackboard? Why?	Take note frequently.
Time and Learning Environment	Do you have a study spot where you can concentrate? Why?	Yes, at home where it is empty, for example, during exams, concentrate on yourself.
	How do you make good use of your time in studying?	Never procrastinate on tasks and fear piling up.
	Do you find it difficult to determine your learning? Why?	No, I don't.
	How do you prevent laziness in studying? Why?	I take a short break and continue studying again.
	Do you always submit your assignments on time?	Yes, I do.
	Are you often absent from this lesson? Why?	No, I am not.
	Do you often miss class due to other activities? Why?	No, I don't.

Indicator	Question	Answers
	How do you repeat the material you have recorded? Why?	Repeat the material again.
Work Organizer	When you feel bored understanding this material what do you do? Why?	After take a short break.
	Do you feel uncomfortable when material you don't like is going on? Why?	No, I don't feel uncomfortable, I am enjoy the material.
	Do you have a way that if there are easier and harder problems, you do the easier ones first? Why?	Yes, the easy ones first, so that we spend less time.
	When you haven't understood this material, but you don't like the lesson how do you feel? Why?	I am very happy and ask the teacher.
Learning with Peers	Do you often help friends who are struggling to understand the material?	Yes, I often.
	How do you complete tasks with your friends?	Sometimes group tasks work together, if individual tasks individually
	How do you keep discussing with your friends?	I always ask question.
Seeking Help/Support	Do you keep studying, even if the material is very difficult? Why?	Yes, I do.
	If you don't understand the material, do you always ask questions?	Yes, I do.
	When you couldn't understand the material, did you ask others for help?	Yes, sometimes I ask for help from my siblings, friends and teachers.
	How do you ask for help if there is material you don't understand? Why?	Yes, like asking about things I don't know.

Based on Table 3, the results of the male SRL interview showed very good and able to answer every aspect and indicator of SRL according to himself.

Table 4. Data Triangulation of Male SRL

Nu	Indicator	Obs	Quest	Inter	Description
1.	Orientation Intrinsic Purpose	√	√	√	Credible
2.	Orientation Extrinsic Purpose	√	√	√	Credible
3.	Assignment Score	√	x	√	Not Credible
4.	Learning Confidence Control	√	x	√	Not Credible
5.	Self Efficacy for Learning Environment	√	√	√	Credible
6.	Anxiety Test	√	√	√	Credible
7.	Exercise	√	√	√	Credible
8.	Collaboration	√	√	√	Credible
9.	Organization	√	x	x	Not Credible
10.	Critical Thinking	√	√	√	Credible
11.	Metakognitive SRL	√	√	√	Credible
12.	Time and Learning Environment	√	√	√	Credible
13.	Work Organizer	√	√	√	Credible
14.	Learning with Peers	√	√	√	Credible
15.	Seeking Help/Support	√	x	x	Not Credible

Based on Table 4 triangulation data of male SRL, the achieved indicators are intrinsic goal orientation, extrinsic goal orientation, task value, belief control, self-efficacy for learning and performance, anxiety testing, practice, collaboration, critical thinking, metacognitive SRL, time and learning environment, effort regulation, and learning with peers For indicators that are not achieved, namely organization and seeking help.

2. Female SRL

Observations were carried out in accelerated class seven by participating in science learning, observations of students were carried out three times a meeting, as follows:

Table 5. Observation Result of Female SRL

SRL Aspect	Component	SRL Alignment
Motivational Strategy	Value Component	Observed
	Expectation	Observed

Component	Observed
Afektive Component	Observed
Cognitive Strategy and Metacognitif of SRL	Observed
Resource Management Strategy	Observed

Based on Table 5, the results of female SRL observations that have been made have been in accordance with the aspects of SRL of female accelerated students observed in the science learning process, namely aspects of motivational strategies and learning strategies.

After the observation is done, the next data collection technique is the questionnaire technique by sharing the google form link with female accelerated students, below are the results of the questionnaire for female accelerated students:

Table 6. Questionnaire Result of Female SRL

SRL Aspect	Component	Category Description
Motivational Strategy	Value Component	Very True
	Expectation Component	Very True
Learning Strategy	Afektive Component	Very True
	Cognitive Strategy and Metacognitif of SRL	Very True About Me
	Resource Management Strategy	Very True

Based on Table 6, the results of the women's SRL questionnaire, the components and sub-components are observed and show a score with very correct criteria, meaning that they are able and signify true about me.

After the questionnaire technique is carried out, interviews are conducted with female accelerated students face to face. In the SRL aspect, motivational strategies are divided into six sub-components, namely intrinsic goal orientation, extrinsic goal orientation, task value, control of learning beliefs, self-efficacy for learning and performance, and anxiety testing.

Table 7. Interviews Result of Female SRL

Indicator	Question	Answers
Orientation Intrinsic Purpose	Do all your lessons favor difficult material? Why is that?	Yes, I prefer difficult material because it is challenging.
	Do you understand difficult material more easily than easy	Yes, because the teacher explains more.

Indicator	Question	Answers	Indicator	Question	Answers
Orientaion Extrinsic Purpose	material? Why is that?		Self Efficacy for Learning Environment	Do you often have problems learning? Why is this the case?	No, I don't.
	Would you be happy if you could master all the material? Why is that?	Yes, because if the teacher gives a question, there is pride for me.		How did you overcome the difficult material?	I will read carefully until I understand and do.
	Do you always pay attention to the questions and answers without thinking about grades? Why is that?	Yes, more importance is given to the answer.		How would you feel if you've put all your effort into studying, but the results are nil?	Increase learning again.
	What do you think about the grades you got being so satisfying?	Yes, very satisfying.		Do you always try to understand difficult problems in this material?	Yes, to understand the material.
	What do you think about having to score above average?	So that I can enter the high school that I dream of.		Do you always think positively by sticking to the material? Why is that?	Yes, for the requirements to enter the high school that I dream of.
Assignment Score	Do you always try to get good grades and compete with your friends? Why is that?	Yes, to solidify potential and skills.	How do you try to convince yourself to understand the material that the teacher conveys? Why is that?	Believes in one's own abilities and is confident in doing the work.	
	How do you demonstrate good attitudes and skills in class? Why is this the case?	Active in class.	Believes in one's own abilities and is confident in doing the work.	Yes, in order to get satisfactory results.	
	Is this lesson very important for daily life?	Yes, It is.	Have you done your best in this class? Why is that?	Yes, to be looked upon favorably by the teacher.	
	Do you think learning is important for yourself?	Yes, that's right.	How are you trying to improve your classroom skills? Why is this the case?	Study hard and be active in class.	
	Did you enjoy this lesson? Why?	Yes, I did.	How do you try to win in class?	Yes, so that we can compare scores and achieve our goals.	
	Can you interpret this lesson outside of school? Why is that?	Yes, because learning can help with daily life.	Anxiety Test	When taking exams, do you always think about your friends' results? Why is that?	No, I don't.
	Did you enjoy the lesson? Why is that?	Yes, because it's one of my favorite subjects.		When taking tests, do you often run out of	Yes, because of good
Learning Confidence Control	How do you think the material you have learned relates to your surroundings? Why is that?	Yes, It has relates.			
	How do you learn?	How I read my notes and read them again.			

Indicator	Question	Answers	Indicator	Question	Answers
	time in doing the questions?	grades, because I'm more confident.		Do you often compare the learning media you get? Why?	Yes, I do.
	When taking a test, do you always prioritize a good score over a bad one? Why is that?	Yes, because sometimes working on difficult problems is afraid of getting bad grades.		What if the material you get in sources and books is not the same as the material you learn? Why is that?	Ask the teacher
	When taking a test, do you often get anxious about taking a particularly difficult test? Why?	No. I don't.	Organization	Do you always make the class active with your ideas? Why?	Yes, I do.
	When taking tests, do you often expect cheats from your friends? Why?	Yes, I often.		How do you master the complex material in this class? Why?	I am learn.
Exercise	Do you have a way to understand the material that has been delivered by the teacher?	Yes, I do.		How can you understand the material that the teacher has not conveyed?	Read it first.
	How do you study if you don't have notes?	I am borrow booknote my friend.		Do you have ways to understand the material other than using reading media? Why?	Take notes on paper and have answers in front of them.
	How do you remember the material you have written down and learned?	I am reading book again.		Do you often take notes to make the material easier? Why?	Some material only, because the material is more difficult for me to understand.
	How can you memorize this material?	Yes, I can.	Critical Thinking	Do you always ask the teacher about the material?	Sometimes I understand.
Collaboration	Do you often use other sources to study?	Yes, I do.		What do you do if you can't understand the material in class? Why?	Study more and ask the teacher to understand the material.
	Do you always connect the material from the course and the competition in your lessons? Why?	Yes, if only to add information	Metacognitive SRL	If during class you often think about other things? What is your attitude?	Nothing.
	Do you always try to relate learning in class to life around you? Why?	Yes, because it is easier to do things in everyday life learning is easier to do things in everyday life.		If you remember the material by memorizing, what percentage do you remember? Why?	75% of my memory.
				Do you often experience confusion when the lesson	No, I don't

Indicator	Question	Answers	Indicator	Question	Answers
	starts? Why?		Environment	concentrate? Why?	
	How do you prevent yourself from having difficulty understanding what you have learned? Why?	Asked the teacher to understand better, because the teacher was explaining.		How do you make good use of your time in studying?	Usually morning to evening working on assignments.
	How important is it to understand the material to be learned? Why?	Very important, in order to master the material that will be tested.		Do you find it difficult to determine your learning? Why?	No, I already know my learning target.
	Have you ever tried to understand yourself?	Yes, lack of confidence.		How do you prevent laziness in studying? Why?	Actually, I'm not lazy, it's just that I'm stuck.
	How do you try to learn the material if the learning model is not the same as the teacher? Why?	Customize, so you can keep up.		Do you always submit your assignments on time?	Yes, I do.
	Do you often have trouble reading the material you are understanding? Why?	o, because I studied it the day before.		Are you often absent from this lesson? Why?	Never
	Do you often have trouble reading the material you are understanding? Why?	Yes, to improve skills and potential.		Do you often miss class because of other activities? Why?	Never
	Do you always practice the problems that are in the book and that you have learned before? Why?	Yes, learn more to understand more.	Work Organizer	How do you repeat the material you have recorded? Why?	Read it again to understand.
	What if you have studied the material well, but it is difficult to understand? Why?	Ask the teacher.		When you feel bored understanding this material what do you do? Why?	Studying other related materials, to increase knowledge.
	Do you often revisit problems in the material and connect them? Why?	Yes, I do.		Do you feel uncomfortable when material you don't like is going on? Why?	No, the material must be understood more.
	Do you often take notes on the blackboard? Why?	Yes, because the notes on the board are not in the book.		Do you have a way that if there are easier and harder problems, you do the easier ones first? Why?	Yes, so that time does not run out.
Time and Learning	Do you have a study spot so you can	Yes, I do.		When you haven't understood this material, but you don't like the lesson how do you feel? Why?	Bored, because I don't like the lesson and it's hard.
			Learning with Peers	Do you often help friends who are struggling to understand the material?	Yes, I do.

Indicator	Question	Answers
Seeking Help/Support	How do you complete tasks with your friends?	Works together.
	How do you keep discussing with your friends?	Providing new ideas.
	Do you keep studying, even if the material is very difficult? Why?	Yes, in order to follow the tested material.
	If you don't understand the material, do you always ask questions?	Yes, I do.
	When you couldn't understand the material, did you ask others for help?	Usually ask teachers or friends who already understand.
	How do you ask for help if there is material you don't understand? Why?	Ask the teacher politely and at the end of class so that you can follow the material.

Based on Table 7, the results of women's SRL interviews show that they are very good and able to answer every aspect and indicator of SRL according to themselves.

Table 8. Triangulation Data of Female SRL

Nu	Indicator	Obs	Quest	Inter	Description
1.	Orientation Intrinsic Purpose	√	√	√	Credible
2.	Orientation Extrinsic Purpose	√	√	√	Credible
3.	Assignment Score	√	x	√	Credible
4.	Learning Confidence Control	√	x	√	Credible
5.	Self Efficacy for Learning Environment	√	√	√	Credible
6.	Anxiety Test	√	x	x	Not Credible
7.	Exercise	√	x	√	Credible
8.	Collaboration	√	√	√	Credible
9.	Organization	√	√	√	Credible

Nu	Indicator	Obs	Quest	Inter	Description
10.	Critical Thinking	√	√	√	Credible
11.	Metakognitive SRL	√	√	√	Credible
12.	Time and Learning Environment	√	√	√	Credible
13.	Work Organizer	√	√	√	Credible
14.	Learning with Peers	√	√	√	Credible
15.	Seeking Help/Support	√	√	√	Credible

Based on Table 8, female SRL triangulation data, the achieved indicators are intrinsic goal orientation, extrinsic goal orientation, task-controlled beliefs, self-efficacy for learning and performance, practice, collaboration, organization, critical thinking, metacognitive SRL, time and learning environment, effort regulation, learning with peers and seeking help. For indicators that were not achieved, the anxiety test.

DISCUSSION

Based on Table 4, male SRL tends to like natural science learning that leads to calculations, such as physics subjects. Research relevant to male accelerated students has been conducted (Fitriani et al., 2018) explaining that male students are more likely in the fields of science technology and mathematics including their abilities including cognitive abilities, relative cognitive strength, interests or job preferences. A student's intelligence affects the ability to adapt or adjust to the environment. According to (Basri, 2018) explains that intelligence is one of the internal factors in an individual that can influence the stimulus received. (Anwar et al., 2019) explains that men have a larger brain volume than women. (Anwar et al., 2019) explained that there is a difference in the average number of neocortex neurons in the brains of women and men by 16%, and about 19 billion neocortex neurons in the female brain and 23 billion in the male brain. Jaušovec & Pahor, (Anwar et al., 2019) state that there is a positive relationship between brain volume and intelligence level which is explained by the positive association between brain volume and the number of neurons. Human intelligence is related to neuronal complexity, action potential kinetics and efficient transfer of information from input to output in cortical neurons. The level of intelligence in each individual is different, a 2014 meta-analysis on sex differences in scholastic achievement found that women outperformed men from elementary school level, junior high school level, high school level and college level.

Based on Table 8, female accelerated students tend to have good SRL in terms of SRL aspects. Female accelerated students prefer science learning in the field of biology, and have learning strategies that lead to memorization and repetition of materials. Research conducted by (Cahyono, 2017) states that education in America shows women are slightly better than men in general ability.

According to (Azmi, 2016) SRL is an activity of learners to be able to monitor, regulate, and control their cognition, motivation and behavior. SRL strategies according to explain about SRL cognitive strategies include summarizing, memorizing and taking notes in their own language. Motivational strategies include making greater efforts, emphasizing consistent reasons and increasing intrinsic motivation in doing tasks (Regulated & Strategy, 2017). Behavioral strategies include managing time and learning environment and getting help from peers. Female accelerated students prefer the learning style of memorizing and writing back in their notebooks and asking questions if they do not understand. Research in education based on female gender in the academic field is more active and superior than male students. Based on research that has been conducted by previous researchers, it explains that the IQ of female students is five points low compared to male students. However, with the passage of time and the changing times stated by the sixth IQ tester by experts (Muspiroh, 2020). Female IQ currently has a higher level than male students. Thus, from the change in the IQ level of female and male gender, it only has a difference of 5 (five) points from men. However, this finding shows that female students have a higher IQ level than male students. The findings that have been made by Flynn can show the equality or equality of the sexes in education that has been found (Yudho et al., 2020).

Based on the research of two accelerated students consisting of one male accelerated student and one female accelerated student, it can be revealed that SRL in terms of learning style and ability between male and female accelerated students tends to be higher in female students. In the world of education, male accelerated students excel more in math, physics and non-academic fields, while female accelerated students tend to like subjects such as biology and are interested in rote learning. Research conducted by Zimmerman and Martinez Pons, (Hasnah, 2018) explains that students who have high SRL and achievement tend to look to peers and teachers as a source of encouragement, and researchers found that students more often seek help from parents. 50% asked for help from peers, 35% asked for help from adults.

CONCLUSION

Based on the results of the study, it can be concluded that SRL based on gender, namely one male student and one female student in accelerated class in natural science learning at SMP Negeri 1 Sidoarjo, between male SRL and female SRL can be developed in learning, interests and talents they have in terms of academic and non-academic fields. Male SRL indicators that are not achieved are organization and seeking help while female SRL indicators that are not achieved are anxiety tests. Factors affecting the non-achievement of SRL indicators are thought to be that students are less able to manage organization, seek help, and test anxiety on themselves. Future research is expected to develop learning models that train SRL.

Acknowledgement

The author would like to thank all those who have helped both the contribution of thoughts and prayers, material and knowledge, especially to both parents, supervisors, teachers, and friends.

References

- Abdillah, K., & Hamami, T. (2021). Pengembangan Kurikulum Menghadapi Tuntutan Kompetensi Abad Ke 21 Di Indonesia. *Jurnal Pendidikan Islam Al-Ilmi*, 4(1), 1-20. <https://doi.org/10.32529/al-ilm.v4i1.895>
- Alfina, I. (2014). Hubungan Self-Regulated Learning dengan Prokrastinasi Akademik pada Siswa Akselerasi. *Psikoborneo: Jurnal Ilmiah Psikologi*, 2(1), 66-75. <https://doi.org/10.30872/psikoborneo.v2i1.3575>
- Anwar, S., Salsabila, I., Sofyan, R., & Amna, Z. (2019). Laki-Laki Atau Perempuan, Siapa Yang Lebih Cerdas Dalam Proses Belajar? Sebuah Bukti Dari Pendekatan Analisis Survival. *Jurnal Psikologi*, 18(2), 281. <https://doi.org/10.14710/jp.18.2.281-296>
- Azmi, S. (2016). Self regulated learning salah satu modal kesuksesan belajar dan mengajar. *Jurnal Pedagogi Dan Pembelajaran*, 5(1), 19-20.
- Basri. (2018). Hubungan Antara Kecerdasan Emosional Dengan Motivasi Belajar. *Jurnal Sosial Humaniora*, 1(li), 31-38.
- Cahyono, B. (2017). Analisis Keterampilan Berfikir Kritis Dalam Memecahkan Masalah Ditinjau Perbedaan Gender. *Aksioma*, 8(1), 50. <https://doi.org/10.26877/aks.v8i1.1510>
- Dinata, P. A. C., Rahzianta, & Zainuddin, M. (2016). Self Regulated Learning sebagai Strategi Membangun Kemandirian Peserta Didik dalam Menjawab Tantangan Abad 21. *Seminar Nasional Pendidikan Sains*, 1(1), 139-146.
- Dwi Rita Nova, D., & Widiastuti, N. (2019).

- Pembentukan Karakter Mandiri Anak Melalui Kegiatan Naik Transportasi Umum. *Comm-Edu (Community Education Journal)*, 2(2), 113. <https://doi.org/10.22460/comm-edu.v2i2.2515>
- Fatimah, S. (2019). Self-Regulated Learning and Prestasi Akademik Siswa Program Akselerasi Berdasarkan Jenis Kelamin. *JKI (Jurnal Konseling Indonesia)*, 4(2), 68-73. <https://doi.org/10.21067/jki.v4i2.3243>
- Fitriani, Harahap, F., & Manurung, B. (2018). Analisis Kemampuan Literasi Sains Biologi Siswa SMA Se-Kabupaten Aceh Tamiang, Aceh, Indonesia. *Prosiding Seminar Nasional Biologi Dan Pembelajarannya Universitas Negeri Medan*.
- Hasnah, S. (2018). *Learning siswa unggulan di sekolah sekolah menengah kejuruan negeri 2 Medan Fakultas Psikologi Medan*.
- Junanto, T., & Afriani, R. (2016). Implementasi Digital-Age Literacy Dalam Pendidikan Abad 21 Di Indonesia. *Prosiding Seminar Nasional Pendidikan Sains, 2016-2113*. <https://media.neliti.com/media/publications/173402-ID-none.pdf>
- Khoerunnisa, N., Rohaeti, E. E., & Ningrum, D. S. ayu. (2021). Gambaran Self Regulated Learning Siswa Terhadap Pembelajaran Daring Pada Masa Pandemi Covid 19. *FOKUS (Kajian Bimbingan & Konseling Dalam Pendidikan)*, 4(4), 298. <https://doi.org/10.22460/fokus.v4i4.7433>
- Lidiawati, K. R. (2016). Peran Pelatihan Strategi " Smart " Dalam. *Jurnal Psikologi Ulayat*, 3(2), 158-168.
- Mauludin, A., & Nurjaman, A. (2018). Pengaruh Self Regulated Learning Terhadap Kemampuan Berpikir Kreatif Matematis Siswa Sma. *JPMI (Jurnal Pembelajaran Matematika Inovatif)*, 1(2), 193. <https://doi.org/10.22460/jpmi.v1i2.p193-200>
- Muspiroh, N. (2020). Perbedaan Hasil Belajar Peserta Didik Berdasarkan Gender Pada Mata Pelajaran Biologi. *Equalita: Jurnal Studi Gender Dan Anak*, 2(1), 48. <https://doi.org/10.24235/equalita.v2i1.7055>
- Nahdi, D. S. (2017). Peningkatan Kemampuan Self-Regulated Learning (Srl) Siswa Sekolah Dasar Melalui Model Pembelajaran Kooperatif Tipe Think Pair Share (Tps). *Jurnal Cakrawala Pendas*, 3(1), 1-13.
- Nugroho, M. H., Asri, D. N., Kadafi, A., Diri, M., & High, J. (2022). *Faktor Yang Mempengaruhi Self-Regulated Learnig*. 6(1).
- Oktariani, O., Munir, A., & Aziz, A. (2020). Hubungan Self Efficacy dan Dukungan Sosial Teman Sebaya Dengan Self Regulated Learning Pada Mahasiswa Universitas Potensi Utama Medan. *Tabularasa: Jurnal Ilmiah Magister Psikologi*, 2(1), 26-33. <https://doi.org/10.31289/tabularasa.v2i1.284>
- Patty, S., Wijono, S., & Setiawan, A. (2017). Hubungan Dukungan Sosial Teman Sebaya, Kontrol Diri, Dan Jenis Kelamin Dengan Prestasi Belajar Siswa Di Sma Kristen Ypkpm Ambon. *Psikodimensia*, 15(2), 204. <https://doi.org/10.24167/psiko.v15i2.989>
- Putra, I. K. A. D., Arini, N. W., & Sudarma, I. K. (2019). Pengaruh Model Self Regulated Learning terhadap Hasil Belajar IPA Siswa. *International Journal of Elementary Education*, 3(3), 258. <https://doi.org/10.23887/ijee.v3i3.19406>
- Regulated, S., & Strategy, L. (2017). Strategi Self Regulated Learning Dan Prokrastinasi Akademik Terhadap Prestasi Akademik. *Intuisi : Jurnal Psikologi Ilmiah*, 9(3), 210-223.
- Ulum, M. I. (2016). Strategi Self-Regulated Learning untuk Menurunkan Tingkat Prokrastinasi Akademik Siswa. *Psymphatic : Jurnal Ilmiah Psikologi*, 3(2), 153-170. <https://doi.org/10.15575/psy.v3i2.1107>
- Yudho, F. H. P., Aryani, M., Rahadian, A., Afriyuandi, A. R., & Pratama, A. K. (2020). Tingkat Persepsi dan Ketertarikan Masyarakat Dalam Aktivitas Fisik Berirama Dalam Menjaga Kebugaran Fisik. *Jurnal Terapan Ilmu Keolahragaan*, 5(2), 128-136. <https://doi.org/10.17509/jtikor.v5i2.28160>
- Zubaidah, S. (2020). Self Regulated Learning : Pembelajaran dan Tantangan pada Era Revolusi Industri 4 .0. *Publikasi Ilmiah*, 5(April), 1-19. https://publikasiilmiah.ums.ac.id/xmlui/bitstream/handle/11617/12234/p.1-19siti_zubaidah.pdf?sequence=1&isAllowed=y

Artikel_The Analysis Of Self Regulated Learner Of Acceleration Class At Secondary School In Natural Science Subjects Based On Gender_Novia Dwi Rahmaningtyas_198420100002.doc

ORIGINALITY REPORT

3%

SIMILARITY INDEX

3%

INTERNET SOURCES

1%

PUBLICATIONS

2%

STUDENT PAPERS

PRIMARY SOURCES

1

Submitted to Universitas Mataram

Student Paper

2%

2

etd.lib.metu.edu.tr

Internet Source

1%

Exclude quotes On

Exclude matches < 1%

Exclude bibliography On