**ANFUSINA: JOURNAL OF PSYCHOLOGY**
http://ejournal.radenintan.ac.id/index.php/anfusina
DOI: // dx.doi.org/10.24042/ ajp.v6i1.16579
Volume 6, Number 1, April 2023

# The Role of Self-Regulated Learning and Gender in Determining Student Academic Achievement: A Comparative Analysis

**Vira Sandayanti**
Universitas Malahayati Bandar Lampung
virasanda@malahayati.ac.id

**Supriyati**
Universitas Malahayati Bandar Lampung
supriyati@malahayati.ac.id

**Article Information:**
*Received: 28 January 2023*
*Revised: 27 February 2023*
*Accepted: 20 March 2023*

***Abstract***

Academic achievement is the level of success in studying the learning material. It can be seen from the GPA, which is a number that describes the success of studies cumulatively (Saputro, 2022). Academic achievement factors (Arofah et al., 2020) include internal factors (physiology and psychology) and external factors (social and non-social environment). The study aimed to determine the differences in student academic achievement in terms of Self-Regulated Learning (SRL) and gender. The research sample was 160 students of the Faculty of General Medicine class of 2022 at Malahayati University, determined by random sampling technique. The data was collected using the MSLQ (Motivated Strategies for Learning Questionnaire) scale, 2021/2022 academic year GPA, and students' gender. The correlation test results were 0.562 ($p = 0.000$), where the p-value was lower than 0.05. Therefore, the proposed research hypothesis proved differences in academic achievement in terms of SRL and gender in the Faculty of General Medicine students at Malahayati University. The SRL contributed to academic achievement by 32%.

The Role of Self-Regulated Learning and Gender in Determining Student Academic Achievement: A Comparative Analysis

**Abstrak**

Prestasi akademik merupakan tingkatan keberhasilan dalam mempelajari materi yang telah diberikan, dilihat dari IPK yang merupakan angka yang menggambarkan keberhasilan studi mahasiswa yang telah ditempuh secara kumulatif (Saputro, 2022). Faktor prestasi akademik (Arofah et al., 2020), meliputi faktor internal (fisiologi dan psikologi), faktor eksternal, (lingkungan sosial dan non-sosial). Tujuan penelitian untuk mengetahui perbedaan prestasi akademik mahasiswa ditinjau dari *Self-Regulated Learning (SRL)* dan jenis kelamin. Sampel penelitian sebanyak 160 orang mahasiswa Fakultas Kedokteran Umum angkatan 2022 di Universitas Malahayati, dengan menggunakan teknik *random sampling*. Metode pengumpulan data menggunakan skala *MSLQ (Motivated Strategies for Learning Questionare*), IPK TA.2021/2022, serta jenis kelamin mahasiswa. Hasil uji korelasi sebesar 0.562 (p=0,000) dimana p<0,05 artinya hipotesis penelitian yang diajukan terbukti, bahwa ada perbedaan prestasi akademik ditinjau dari *SRL* dan jenis kelamin pada mahasiswa FKU Universitas Malahayati dan SRL memberikan sumbangan terhadap prestasi akademik sebesar 32%.

**Keywords:** Self-Regulated Learning (SRL), Academic achievement, Gender

.

## Introduction

Education nowadays determines the growth of a nation, including human resources (HR), supporting facilities, and educational quality. According to Kusnandi, (2017), a nation's economic growth is closely tied to the quality of its education. However, the 2018 Program for International Student Assessment (PISA) reports statistics claims that Indonesia's education ranks fifth in ASEAN and behind Malaysia in global education (Saputro & Hadi, 2022). In general, student academic accomplishment is a readily assessed quality of output to see the quality of education in Indonesia. Academic achievement is a person's learning performance, often displayed as an average score attained and shown as a Cumulative Grade Point Average (GPA) (Akbar, 2020). Internal factors influencing academic achievement include physiological aspects, such as a student's mood, and psychological factors, such as motivation, talent, and intelligence. Physical factors, cultural considerations, and social aspects are examples of external factors (Fanggidae et al., 2021).

Students are expected to be more active, to be polite to their peers, dare to defend rational ideas, criticize ideas, tolerate, be autonomous, and not dominate others. In cognitive psychology, this

 DOI: // dx.doi.org/10.24042/ ajp.v6i1.16579

ability is known as self-regulated learning (SRL) or learning independence (Nahdi, 2017). Zimmerman & Martinez-Pons (1990) claim that SRL is students' active engagement in the learning process regarding metacognition, motivation, and conduct. Metacognition is establishing goals, devising tactics to achieve them, and assessing the methods employed. Motivation and behavior are also the drives to do what you want to achieve and guided behavior to achieve what you desire. SRL can be improved through training or management of their actions (Dinata et al., 2016).

According to the findings of the researcher's survey, 68 students had low academic performance (GPA) because they did not engage in SRL activities such as delaying work, poor study time management, underestimating tasks, being too lazy to go to college, and a lack of sense of responsibility. Previous research by Efendi et al. (2020) on the association between self-efficacy and self-regulation in students of the Faculty of Medicine, Malahayati University, found that they have moderate self-regulation, with 67 students (54.5%) having moderate self-regulation. This situation demonstrates that many students lack the ability and skills to effectively regulate their learning. Yulianti et al. (2016) discovered that Students with strong SRL achieve excellent learning outcomes. Anwar and Prabandari (2013) stated that medical students should apply deep learning methodologies to help build problem-solving skills in a clinical situation, emphasizing the importance of SRL.

An academic achievement that must be reached, as shown by the achievement index (GPA), and precision in completing the study determines a student's performance in the academic field. In his research, Zahroh, (2016) noted that male students are usually less meticulous when working on challenges; hence, the performance levels of male and female students differ, with female students outperforming male students. Male students are generally slow to learn and uninterested in learning. Conversely, female students are neat and eager to learn. On the other hand, male students face greater challenges to academic success, but female students are more driven to learn due to local factors that force them to study hard.

## Methods

This research design is an observational analytic with a cross-sectional approach to measuring SRL on the academic achievement

of doctor profession students. The subjects in this study were General Medical Faculty Students Class of 2022 at Malahayati University. The sample was taken using a random sampling technique. The sample in this study was 160 students. The MSLQ scale was employed in this research. It was constructed around three MSLQ dimensions: motivational strategies, learning strategies, and result management strategies. Statistical analysis was the data analysis method employed. The Spearman product moment correlation technique was utilized to measure SRL with academic achievement.

## Result and Discussion

This research involved 160 students from Malahayati University's Faculty of General Medicine class of 2022. SRL data was gathered by distributing questionnaires to research participants, and GPA data was received from the University Academic division. The study's findings were presented in tabular form utilizing univariate and bivariate analysis, which included numerous data distributions defining the respondents.

**Table 1. The Characteristics of Research Subjects**

| **Based on Gender** | | |
|---|---|---|
| | **Frequency** | **Percentage** |
| **Male** | 85 | 53 |
| **Female** | 75 | 47 |
| **Total** | 160 | 100% |
| **Based on Age** | | |
| **18** | 3 | 1.9 |
| **19** | 153 | 95.6 |
| **20** | 4 | 2.5 |
| **Total** | 160 | 100% |

 DOI: // dx.doi.org/10.24042/ ajp.v6i1.16579

**Table 2. Frequency Distribution of SRL Categories of General Medicine Faculty Students Class of 2022 at Malahayati University**

| Variable | Frequency | Percentage (%) |
|---|---|---|
| **SRL** | | |
| High (>101) | 57 | 36 |
| Moderate (68-101) | 78 | 48 |
| Low ( <68) | 25 | 16 |
| **Total** | 160 | 100% |

**Table 3. Frequency Distribution of SRL Categories and Gender of General Medicine Faculty Students Class of 2022 at Malahayati University**

| Variable | | Frequency | Percentage (%) |
|---|---|---|---|
| **SRL** | **JK** | | |
| **High** | Male | 44 | 27 |
| | Female | 13 | 8 |
| **Total** | | **57** | **35** |
| **Moderate** | Male | 30 | 19 |
| | Female | 48 | 30 |
| **Total** | | **78** | **49** |
| **Low** | Male | 11 | 7 |
| | Female | 14 | 9 |
| **Total** | | **25** | **16** |
| | Male | 85 | 53 |
| | Female | 75 | 47 |
| **Total** | | **160** | **100** |

The hypothesis test employed was the two-way ANOVA. The findings are shown in Table 4.

**Table 4. The Two-way ANOVA Test Result on the Effect of SRL and Gender on Academic Achievement**

| Source | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|
| SRLrange | 1,962 | 26,814 | ,000 | ,258 |
| JK | 3,722 | 50,861 | ,000 | ,248 |
| SRLrange * JK | ,077 | 1,046 | ,354 | ,013 |

The data above shows an influence of the level of SRL on academic achievement, as shown by the GPA value. The F-value is 26.81, with a significance of 0.000, where p is smaller than 0.05. The influence of

the SRL variable is 25.8%, as seen from the Partial Eta Squared score of 0.258. On the other hand, gender significantly influences academic achievement (GPA) with an F-value of 50.861 with a significance of 0.000, where the p-value is smaller than 0.05. Then, the interaction between SRL and gender on achievement obtained an F-value of 1.046, with a significance of 0.354, where the p-value is greater than 0.05. Therefore, it can be concluded that there is no influence or difference in GPA in terms of the interaction of SRL and gender, with an influence of 24.8%.

**Table 5. The Differences in Academic Achievement in Terms of SRL**

| (I) SRLrange | (J) SRLrange | Mean Difference (I-J) | Std. Error | Sig.[b] |
|---|---|---|---|---|
| High | Moderate | -,194* | ,053 | ,000 |
| | Low | -,507* | ,069 | ,000 |
| Moderate | High | ,194* | ,053 | ,000 |
| | Low | -,313* | ,063 | ,000 |
| Low | High | ,507* | ,069 | ,000 |
| | Moderate | ,313* | ,063 | ,000 |

The table above shows a difference in academic achievement between high SRL with moderate and low SRL, with Mean Differences of -0.194 and -0.507, with a significance value of 0.000, where the p-value is smaller than 0.05. For moderate SRL, there is a difference in academic achievement between high and low SRL, with Mean Differences of 0.194 and -0.313, with a significance value of 0.000, where the p-value is smaller than 0.05. For low-category SRL, the Mean Difference values are 0.507 and 0.313, with a significance value of 0.000, where the p-value is smaller than 0.05. Therefore, it can be concluded that there are differences in the academic achievement of students with low SRL with students with high and medium SRL.

**Table 6. Differences in Academic Achievement in Terms of Gender**

| (I) JK | (J) JK | Mean Difference (I-J) | Std. Error | Sig.[b] |
|---|---|---|---|---|
| Male | Female | -,362* | ,051 | ,000 |
| Female | Male | ,362* | ,051 | ,000 |

 DOI: // dx.doi.org/10.24042/ ajp.v6i1.16579

Based on the table above, there are differences in academic achievement between males and females. The data shows that females' academic achievement is higher than males' academic achievement.

According to the research, there are differences in academic achievement and the level of SLR. The SRL and academic achievement have a strong correlation, but other factors affect academic achievement. Those factors, as stated by Syah (Arofah et al., 2020), are (1) internal factors, namely physiology, and psychology; (2) external factors, specifically the non-social and social environments; (3) Learning approach factors, which include the ways students employ to carry out learning tasks and the types of student learning efforts that include learning strategies. According to Rahmawati & Alaydrus (2021), by using SLR, students learn in steps, beginning with analyzing, planning, implementing, observing, understanding, problem-solving, assessing, and adjusting. These steps undoubtedly train students to solve problems systematically and with well-defined outcomes. According to Saputra (2018), students with a high degree of SRL have a better probability of reaching the targeted level of achievement since they can regulate themselves to retain learning independence. Students use self-regulated learning to seek information and manage their learning until they grasp what they are studying. As a result, the SRL learning model promotes deeper learning (Rahmawati & Alaydrus, 2021).

Students with a high SRL will have good self-regulation in learning and will be able to arrange and maintain strategies throughout the learning process without giving up easily. According to Gagne ((Dinata et al., 2016), the components that determine the success of the learning process are techniques for selecting learning objectives, knowing when to utilize these strategies, and measuring their effectiveness. Rossydi et al. (2018) found a significant relationship between learning strategies and academic achievement, with learning strategies able to regulate academic achievement.

Several studies have linked Self-Regulated Learning (SRL) and academic achievement. Fatimah, (2019) pointed out that there is a direct and indirect association between SLR and academic accomplishment. Research by Fasikhah & Fatimah, (2013) discovered that the academic achievement of the group that received SRL training was higher than that of the group that did not receive SRL training, with a p-value lower than 0.003. Whereas the group that received training had a higher average achievement index (GPA)

score (mean value of 2.78) than the group that received no training (mean value of 2.47). Khairrunnisa, (2021) claimed that SLR contributes 34.2% to student academic progress. As a result, when students' SLR levels are high, they can create goals, have clear learning techniques, prepare well, and achieve well in class. In this study, SRL effectively contributes to the academic accomplishment variable of up to 32%, indicating that other factors influence student learning achievement.

The findings of this research also demonstrate that males and females have different levels of academic achievement. Academic achievement refers to the behavioral changes in cognitive, affective, and psychomotor characteristics students attain after participating in learning. There is no difference in the learning application between male and female students. Thus, if there are differences in scientific attitudes between male and female students, it is due to a combination of circumstances. Social factors, such as a conducive learning environment free of noise and disturbance, are examples of external factors that influence student attention.

Regarding internal factors, female students tend to have higher accuracy (Amintarti et al., 2018). Fatimah, (2019) found that there are differences in academic achievement between male and female students. Female students, in particular, are reported to perform more documenting and monitoring and create and prepare goals (Fatimah, 2019).

## Conclusion

The following conclusions can be taken from the research and discussion results: 1) There is a difference in academic achievement between students with high and low SRL, 2) SRL makes an effective contribution to the academic achievement variable of up to 32%, and 3) there are differences in academic achievement between male and female.

Based on the findings of the research and the conclusions of the previously reported findings, it is required to develop a Self-Regulated Learning (SRL) training program to increase student academic achievement.

 DOI: // dx.doi.org/10.24042/ ajp.v6i1.16579

## Reference

Akbar, I. S. M. (2020). *Hubungan Antara Motivasi Diri Dengan Prestasi Akademik Mahasiswa Studi Pada Prodi Pai Mahasiswa Fakultas Agama Islam Universitas Muhammadiyah Jakarta*. *21*(1), 1–9.

Amintarti, S., Ajizah, A., & Utami, N. H. (2018). Hubungan Antara Jenis Kelamin Dengan Hasil Belajar Dan Sikap Ilmiah Mahasiswa Pada Mata Kuliah Botani Tumbuhan Rendah Di Prodi Pendidikan Biologi Fkip Universitas Lambung Mangkurat. *Wahana-Bio: Jurnal Biologi Dan Pembelajarannya*, *10*(1), 1.

Anwar, A. I., & Prabandari, Y. S. (2013). Motivasi Dan Strategi Belajar Mahasiswa Pada Collaborative Learning Dan Problem Based Learning Di Fakultas Kedokteran Gigi Universitas Hasanuddin. *Doctoral Dissertation, Universitas Gadjah Mada*.

Arofah, I., Ningsi, B. A., & Masyhudi, L. (2020). *Analisis Faktor-Faktor Yang Mempengaruhi Prestasi Akademik Mahasiswa*. *20*(8), 9–12.

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.

Efendi, D. H., Sandayanti, V., & Hutasuhut, A. F. (2020). Hubungan Efikasi Diri Dengan Regulasi Diri Dalam Belajar Pada Mahasiswa Fakultas Kedokteran Universitas Malahayati. *ANFUSINA: Journal of Psychology*, *3*(1), 21–32.

Fanggidae, J. J. R., Ekowati, C. K., Nenohai, J. M. H., & Udil, P. A. (2021). Klasifikasi faktor-faktor yang mempengaruhi prestasi akademik mahasiswa pendidikan matematika FKIP UNDANA dengan metode CHAID. *Fraktal: Jurnal Matematika Dan Pendidikan Matematika*, *2*(1), 23–33.

Fasikhah, S. S., & Fatimah, S. (2013). *Self-Regulated Learning* (SRL) Dalam Meningkatkan Prestasi Akademik Pada Mahasiswa. *Jurnal Ilmiah Psikologi Terapan*.

Fatimah, S. (2019). Self-Regulated Learning and Prestasi Akademik Siswa Program Akselerasi Berdasarkan Jenis Kelamin. *JKI (Jurnal Konseling Indonesia)*, *4*(2), 68–73.

Khairrunnisa, N. (2021). *Pengaruh self regulated learning terhadap prestasi akademik mahasiswa bimbingan dan konseling islam IAIN Palopo*.

Kusnandi. (2017). Konsep Dasar dan Strategi Penjaminan Mutu Pendidikan: Sebagai Review Kebijakan Mutu Pendidikan. *Indonesian Journal of Education Management & Administration Review*, *1*(2), 107–118.

Nahdi, D. S. (2017). Self Regulated Learning sebagai Karakter dalam Pembelajaran Matematika. *The Original Research of Mathematics*, *2*(1), 20.

Rahmawati, E., & Alaydrus, F. M. (2021). Pengaruh Self -Regulated Learning Terhadap Kemampuan Berpikir Kritis Dalam Pembelajaran Blended Learning. *Jurnal Al–Hikmah*, *9*(1), 122–129.

Rossydi, A., Wahyu, A. E., & Atbar, M. (2018). Korelasi antara Motivasi, Strategi Belajar, dan Prestasi Akademik Taruna ATKP Makassar: Tinjauan Belajar Level 4 Standard ICAO. *Airman: Jurnal Teknik Dan Keselamatan Transportasi*, *1*(2), 11–16.

Saputra, W. N. E., Alhadi, S., Supriyanto, A., Wiretna, C. D., & Baqiyatussolihat, B. (2018). Perbedaan Self-regulated Learning Siswa Sekolah Menengah Kejuruan berdasarkan Jenis Kelamin. *Jurnal Kajian Bimbingan Dan Konseling*, *3*(3), 131–138.

Saputro, A. A. (2022). Pengaruh Prestasi Belajar Dilihat Gaya Belajar Pada Mahasiswa Pendidikan Jasmani. *6*(1), 1–23.

Saputro, M. N. A., & Hadi, B. (2022). Pengembangan System Penjaminan Mutu Pendidik Untuk Menciptakan Seorang Pendidik Yang Professional. *2*(11), 3745–3764.

Yulianti, P., Sano, A., & Ifdil. (2016). *Self Regulated Learning* Siswa Dilihat dari Hasil Belajar. *Jurnal EDUCATIO: Jurnal Pendidikan Indonesia*.

Zahroh, F. (2016). Pengaruh Gender Terhadap Motivasi Memilih Sekolah Dan Prestasi Belajar. *Journal of Accounting and Business Education*, *1*(2).

Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into Practice*, *41*(2), 64–70.

Zimmerman, B. J., & Martinez-Pons, M. (1990). Student Differences in Self-Regulated Learning: Relating Grade, Sex, and Giftedness to Self-Efficacy and Strategy Use. *Early Childhood Education Journal*, *36*(1), 403–406.

 DOI: // dx.doi.org/10.24042/ ajp.v6i1.16579