The UPI-UPSI International Conference 2025
"Transforming Education in the Digital Era to Prepare Adaptive and Competitive Global Citizens"
Volume 1, Edisi 1, 2025
Open Access: https://proceedings.upi.edu/upi-upsi

Profile of Student Learning Motivation In The Digital Era

Fatia Vienna Ramadhan
Guidance and Counseling, Faculty of Education, Universitas Pendidikan Indonesia, Bandung, Indonesia
*Correspondence: E-mail: fatiawina11@upi.edu

ABSTRACT

The transformation of 21st century education has encouraged the integration of digital technology into the learning process that brings both opportunities and challenges to students' motivation to learn. This study aims to describe the profile of students' learning motivation in the digital era based on the theory of Self-Determination (Deci & Ryan, 2000), identify internal and external factors that affect learning motivation, and analyze their implications for the development of guidance and counseling (BK) services that are oriented towards strengthening learning motivation. The method used is a Systematic Literature Review (SLR) of thirteen published scientific articles in the 2020–2025 range accessed through *Google Scholar*, *Scopus*, and *Frontiers in Education*. The analysis was carried out based on three main focuses: (1) intrinsic motivation, extrinsic, and self-regulation dimensions; (2) internal and external factors that affect motivation; and (3) the implications of motivational profiles on BK service practices. The results of the study show that students in the digital era have intrinsic motivation and high self-regulation when the needs for autonomy, competence, and social *connectedness* are met through interactive digital learning and adaptive teacher support. Factors such as education policy, digital literacy, and the social environment also strengthen external motivation. This study emphasizes that digital learning motivation is multidimensional and needs to be supported by technology-based BK services such as *digital learning guidance*, *peer counseling*, and *competence coaching* to form independent, adaptive, and competitive students in the digital era.

ARTICLEINFO

Riwayat Articles
Submitted/Received 19 Nov 2025
First Revised 21 Dec 2025
Accepted 4 Jan 2026
First Available online 10 Jan 2026
Publication Date 10 Jan 2026

Keywords:
Digital Learning Motivation, Self-Determination theory, Guidance and Counseling Services

1. INTRODUCTION

Developments in the 21st century are undergoing a very rapid and profound transformation, along with the integration of digital technology in various aspects of human life, including the education system. The shift in the learning paradigm from one oriented towards knowledge transfer to the development of competencies, character, and digital literacy is the main demand in this era. According to Nurjanah (2019), 21st century skills known as *the 4Cs of critical thinking*, *communication*, *collaboration*, and *creativity* are the main focus in forming an adaptive and globally competitive generation. Thus, modern education aims not only to produce academically intelligent individuals, but also those who are able to innovate and utilize technology wisely. (Sutiah, 2008).

However, this educational transformation also poses new challenges, especially in the context of the implementation of digital learning. The massive use of technology is not always accompanied by the readiness of human resources, both in terms of educators and students. Many teachers have difficulty integrating technology into the teaching and learning process due to the limitations of digital literacy and the lack of technology-based pedagogical training. On the other hand, some students also do not fully have the digital skills and self-regulation skills needed to learn effectively in an online environment (Silvester et al., 2024) This condition shows that the use of technology in education still faces a gap between idealism and the reality of its implementation in the field.

Learning motivation has an important role in determining the success of the education process. Motivation can be interpreted as an inner drive that makes a person want to study diligently, have a clear direction, and strive to achieve the best results (Schunk, Pintrich, & Meece, 2014). In line with the opinion of Maison et al. (2020) that students with high motivation tend to be more active, consistent, and have better learning achievements. In other words, technological advances and various learning innovations will be meaningless if students do not have a strong passion for learning. Therefore, teachers and schools need to understand how to build and maintain student motivation, especially in today's digital learning situation.

Changes in learning motivation patterns in the digital era are also quite complex. Learning systems such as *online learning* and *blended learning* do provide convenience with flexible learning times, unlimited access to materials, and the use of interactive media. However, on the other hand, the lack of direct interaction between students and teachers, distractions from social media, and fatigue from spending too long in front of the screen can reduce students' enthusiasm for learning (Endangsari, 2019; Montessori et al., 2023; Safira & Fadlillah, 2023). This condition shows that the use of technology in learning needs to be balanced with attention to psychological aspects, such as motivation, self-discipline, and balance in learning.

This condition shows that there is a gap between the ideals of 21st century education and the reality of its implementation, where many schools and teachers still face obstacles in fostering learning motivation in the midst of a dynamic digital

environment. In-depth studies on the dynamics of student learning motivation in the digital era are also limited, especially those that highlight the relationship between technological, psychological, and social factors in the context of Indonesian education (Khodijah, 2018). Learning motivation is an important psychological factor that influences an individual's direction and perseverance in achieving academic goals (Schunk, Pintrich, & Meece, 2014). Based on *the theory of Self-Determination* (Deci & Ryan, 2000), learning motivation arises from the need for autonomy, competence, and social connectedness. In the digital context, motivational stability is greatly influenced by digital literacy, self-regulation skills, and social support from teachers. (El Ouaddane et al., 2025).

Thus, a comprehensive understanding of the profile of students' learning motivation in the digital era is needed, namely the characteristics, shaping factors, and patterns of interaction between technology, learning involvement, and the role of teachers. This study aims to map the tendency of students' learning motivation based on the findings of various international studies, to provide a conceptual basis for the development of learning strategies and guidance services that are adaptive to the digital transformation of education.

2. METHOD

This study uses the Systematic Literature Review (SLR) method to obtain a comprehensive picture of students' learning motivation in the digital era. Kitchenham (Siswanto, 2010) explained that *systematic literature review* (SLR) is a research method that aims to identify, evaluate, and interpret all the availability of research that is relevant to the formulation of the problem and the topic area being studied. This study does not collect data directly in the field, but examines various results of previous research that are relevant and have been published in scientific journals. The SLR research procedure is carried out with steps according to Francis & Baldesari (in Siswanto, 2010) which are as follows:

1. Formulating research questions This research contains 3 questions or *research questions* (RQ) as follows:
   a. What is the profile of students' learning motivation in the digital era based on the motivation dimension according to the theory of Self-Determination (Deci & Ryan, 2000)?
   b. What are the internal and external factors that affect students' motivation to learn in the digital era?
   c. How can the results of student learning motivation profiles in the digital era be used as a basis for developing guidance and counseling services that are oriented towards strengthening students' learning motivation?
2. Conducting a literature search to answer research questions

   The literature search process is carried out on various journal search platforms, both national and international, such as *Google* Scholar, *Scopus, and Frontiers in Education.* To facilitate the search for literature, the researcher focuses on research relevant to the topic of student learning motivation in the digital era, as

well as referring to *the research question (RQ),* which has been determined as follows:

1. What is the profile of students' learning motivation in the digital era based on intrinsic, extrinsic, and self-regulatory dimensions?
2. What factors affect students' motivation to learn in the digital era (internal and external factors)?
3. How can the results of the student learning motivation profile in the digital era be used as a basis for the development of guidance and counseling services?

To facilitate the selection process, the researcher established the following literature criteria:

a. The article should discuss the topics of learning motivation, digital literacy, as well as factors that affect student learning in the digital era.
b. Data is obtained from trusted academic journal sites such as **https://scholar.google.com**
c. The article used is a scientific publication with a time span **of 2020–2025**.
d. Journals that are prioritized are publications with national reputation (Sinta 1–3) and Scopus indexed internationally or Q1–Q3.

4. Conducting *screening* and selection of literature that is considered suitable

The *screening stage* is carried out to select the literature that is most relevant to the research objectives, by assessing the suitability of each article to the three main focuses of the RQ above. The *screening* process is carried out in stages with the following steps:

a.) Suitability of the research topic: The article discusses students' learning motivation in a digital context (referring to RQ1).
b.) Analysis of factors influencing learning motivation: The article highlights variables such as digital literacy, teacher support, technology policy, and self-regulated learning (referring to RQ2).
c.) Relevance to BK services or practical applications: Articles that provide recommendations for strategies for increasing motivation or are relevant to the development of guidance and counseling services (refer to RQ3).

Each article evaluated is then classified using the following indicators:

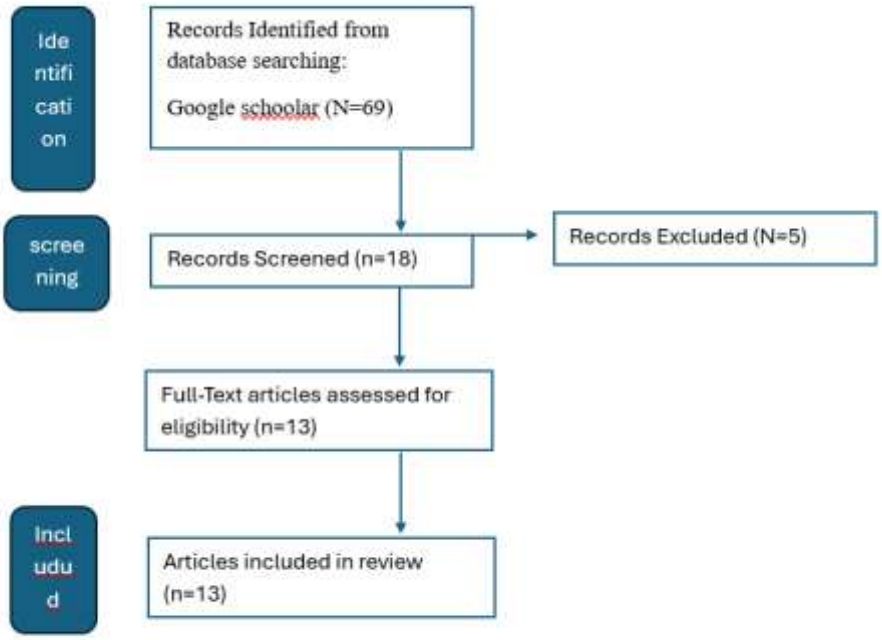
- Y (Yes) : The article meets one or more of the RQ criteria
- X (No): The article is irrelevant or does not answer the research question.

From the results of *the screening process*, 13 selected articles were found to meet the overall focus of the research, with the following distribution of relevance:

- 7 articles support RQ1 (intrinsic, extrinsic and self-regulatory motivation profiles),
- 9 articles support RQ2 (internal–external factors of motivation),

- 6 articles supporting RQ3 (implications for BK learning strategies and services)

This *screening step* is visualized in a literature review flow chart that depicts the selection process from initial identification to final selection (PRISMA-style flow diagram) to ensure transparency and accuracy in the literature source determination process.



Gambar 1. Proses Screening

5. Conducting analysis and synthesis of research literature findings

   The analysis and synthesis of the research literature is carried out by grouping, examining and presenting in research reports. This is intended to obtain the right information as material for discussing the results of the study.

6. Enforce quality control

   Quality control is carried out to review the relevant literature in the research and the results of the analysis of the literature presented in the discussion and conclusion. Quality control is carried out by discussing between group members and guidance and counseling lecturers so that the research results do not cause bias.

7. Compile the final report

   The final report is carried out by writing the research and publishing it in an accredited journal.

3. RESULTS AND DISCUSSION

Yes	Author & Year	(RQ1) Profile of Student Learning Motivation in the Digital Era (Intrinsic, Extrinsic, Self-Regulation)	(RQ2) Factors Influencing Learning Motivation (Internal & External)	(RQ3) Implications for the Development of Guidance and Counseling Services
1	**Ni Made Sri Mertasari & A.A.S. Poetri Paraniti (2023)**	Students show higher intrinsic motivation than extrinsic during online learning.	Teacher-student interaction and self-study activities strengthen motivation.	The results of this profile encourage the development of BK services based on *self-regulated learning* to strengthen learning independence.
2	**Tengku Darmansah, Elsa E. Hasibuan, & Aina U.M. Ray (2024)**	Student motivation is increased through an interactive digital learning system.	Technology-based education policy factors strengthen intrinsic and extrinsic motivations.	BK can act as a facilitator of student adaptation to digital learning policies and increasing technology literacy.
3	**Fatin Syahirah, F.R. Kabry, & G.A. Syuaira (2023)**	Digital generation students have high enthusiasm when learning is participatory and innovative.	Teacher support and creative learning design are the main drivers of motivation.	BK can help teachers design learning engagement enhancement interventions to maintain student learning motivation.
4	**Kholid & Didit Darmawan (2023)**	Students with high digital literacy show stronger self-regulation and motivation.	Digital literacy and learning media variety are the main determinants of learning motivation.	BK services can be directed at improving students' digital literacy to be more independent in the

Yes	Author & Year	(RQ1) Profile of Student Learning Motivation in the Digital Era (Intrinsic, Extrinsic, Self-Regulation)	(RQ2) Factors Influencing Learning Motivation (Internal & External)	(RQ3) Implications for the Development of Guidance and Counseling Services
				online learning process.
5	**Nurul Komariayul Soliha, C.W. Wolor, & D.R. Swaramarinda (2025)**	Motivation plays an important role in improving the academic performance of digital students.	Digital competence and technology training have a positive effect on motivation and learning outcomes.	BK can collaborate with lecturers to develop digital competency training as a motivation strengthening strategy.

Yes	Author & Year	(RQ1) Profile of Student Learning Motivation in the Digital Era (Intrinsic, Extrinsic, Self-Regulation)	(RQ2) Factors Influencing Learning Motivation (Internal & External)	(RQ3) Implications for the Development of Guidance and Counseling Services
6	**Rakha Wahyuanda (2025)**	High learning motivation correlates with academic achievement in a 21st century learning environment.	Digital competence and learning environment support encourage students' intrinsic motivation.	BK can facilitate 21st century skills training as part of the development of continuous learning motivation.
7	**Nikolay Nikolov (2023)**	Students' self-regulation is improved through adaptive learning	Online social interaction and peer environments increase *learning*	BK can use digital platforms to enhance students' social connections

		systems and digital personalization.	*relatedness* and engagement.	and emotional support.
8	**Islawati & R.T. Arwien (2025)**	Students' motivation for independent learning is moderate; still need external support.	The lack of direct supervision lowers the intrinsic motivation of online learning.	BK can design *online coaching services* to strengthen students' motivation and independent learning discipline.
9	**Surya Eka Priyatna, Ilham, & Rafika Hasanah (2024)**	Structured online learning increases students' motivation and independent learning.	Schedule flexibility and interactive tools support digital learning motivation.	BK can adapt online learning strategies to help students develop *self-discipline*.
10	**Luqmanul Hakim A.A., Rusdiman Buhera, & A.W. Subiantoro (2025)**	Students show high learning motivation (81%) with strong self-regulation in the digital environment.	Digital science competencies and school support have an effect on increasing motivation.	These results can be used as the basis for BK services based *on achievement motivation training*.

Yes	**Author & Year**	**(RQ1) Profile of Student Learning Motivation in the Digital Era (Intrinsic, Extrinsic, Self-Regulation)**	**(RQ2) Factors Influencing Learning Motivation (Internal & External)**	**(RQ3) Implications for the Development of Guidance and Counseling Services**
11	**Maulida Sari & Surawan (2025)**	Internal motivation plays a significant role in forming learning independence.	Family support and self-confidence affect learning motivation.	BK can involve parents in programs to strengthen students'

				motivation and independent learning.
12	**Romualda Rimasiute-Knabikienė & Aistė Diržytė (2025)**	There are two motivation profiles: high and low, influenced by social and mental factors.	Peer interaction and mental health are predictors of motivation.	BK can develop *peer counseling* and *mental health support* services to increase motivation.
13	**Nursyamsiah (2025)**	Students with high digital autonomy and competence show better motivation.	Digitalization policies for teacher education and training play an important role in the formation of motivation.	BK can play a role as a school partner in designing interventions to increase student learning autonomy.

Based on the results of the analysis of 13 articles, it is known that the learning motivation profile of students in the digital era shows a dominant tendency towards intrinsic motivation and high self-regulation skills, although the influence of external factors such as teacher support, digital education policies, and learning environment remains significant. This finding is in line with the Self-Determination Theory (SDT) theory which emphasizes that learning motivation will develop optimally if the three basic psychological needs of students are met, namely, *autonomy, competence, and relatedness* (Deci & Ryan, 2000).

In the intrinsic motivation dimension, students show high enthusiasm for the technology-based learning process because they gain the freedom to choose methods, time, and learning resources that suit their respective learning styles (Mertasari & Paraniti, 2023). The learning independence that grows from the digital experience strengthens the sense of responsibility for learning outcomes, as explained by Islawati and Arwien (2025) that the flexibility of online learning fosters students' desire to take initiative and adapt to academic challenges. Meanwhile, a study by Rimasiute-Knabikiene and Diržytė (2025) confirms that students with high motivational profiles have a better level of *self-regulation* and emotional balance in a digital environment, demonstrating the integration between intrinsic and psychological aspects of independent learning.

In the extrinsic motivation dimension, the factors of academic reward, social support, and external encouragement remain important. Fatin Syahirah, Kabry, and Syuaira (2023) highlight the role of teachers in facilitating student motivation through innovative learning approaches that encourage active participation and digital

collaboration. Teacher support, in this case, functions as *a relational support* that maintains the sustainability of student motivation. Research by Darmansah, Hasibuan, and Ray (2024) also strengthens this finding by stating that technology-based education policies increase student engagement through interactive and adaptive learning systems, so that external motivation turns into a sustained internal drive.

In addition, the self-regulation dimension is a key aspect in maintaining digital learning motivation. Kholid and Darmawan (2023) found that high digital literacy strengthens students' ability to control the learning process, while Sari and Surawan (2025) associate internal motivation with learning independence as the main predictor of academic success. This is in line with the findings of Luqmanul Hakim, Buhera, and Subiantoro (2025) which show that students with a high level of self-regulation have a motivation level of up to 81% in digital-based science learning, indicating that *autonomy* and *competence* function as the main mediators in SDT.

The factors that affect learning motivation in the digital era are divided into internal and external. Internal factors include self-efficacy, digital confidence, and intrinsic learning goals. Students with high self-efficacy tend to have better perseverance in completing study tasks (Sari & Surawan, 2025). Meanwhile, external factors include teacher support, digital education policies, and a 21st-century learning environment. Wahyuanda (2025) emphasized that digital competence and access to interactive media have a direct effect on increasing motivation, while Nursyamsiah (2025) stated that education digitalization policies can strengthen learning autonomy if supported by adequate technological infrastructure and teacher training. Nikolov (2023) also shows that online social interaction between students serves to strengthen *relatedness*, which according to Deci and Ryan (2000), is an important element in maintaining long-term motivation.

Conceptually, the relationship between internal and external factors in shaping digital motivation can be explained through the mechanism of psychological need balance. When students feel autonomous, competent, and socially connected, they demonstrate a strong *intrinsic drive* to achieve meaningful learning outcomes. This condition shows a transformation of the learning motivation paradigm from a teacher-centered system to a *student-centered learning system*, where technology is the main medium for strengthening motivation and learning independence.

Digital learning has both positive and negative impacts on students' motivation to learn. On the positive side, digital learning increases intrinsic motivation and learning independence, as students have the freedom to choose the time, place, and learning method that suits their needs (Mertasari & Paraniti, 2023; Sari & Surawan, 2025). In addition, the use of interactive media such as videos and quizzes in digital learning is also able to attract interest and increase student engagement (Fatin Syahirah, Kabry, & Syuaira, 2023). Digital learning also provides broad access to quality learning resources, which can deepen students' interests and encourage them to learn more (Kholid & Darmawan, 2023).

However, on the negative side, digital learning can reduce social interaction between students and between students and teachers, which risks lowering their intrinsic motivation (Endangsari, 2019; Montessori et al., 2023). Distractions from social media and other activities unrelated to learning also often distract students, leading to decreased focus and learning efficiency (Safira & Fadlillah, 2023). In addition, limited infrastructure and low digital literacy among some students make it difficult for them to utilize technology to learn optimally (Nurafiah et al., 2019). Therefore, while digital technology offers many opportunities to increase learning motivation, these challenges must be managed with the right strategies so that technology can be used effectively in supporting student learning success.

Furthermore, the results of the digital learning motivation profile have strategic implications for the development of Guidance and Counseling (BK) services. Empirical findings indicate that school counselors need to play an active role in strengthening three main aspects of motivation through contextual and adaptive services. First, through digital tutoring services, counselors can train *self-regulated learning skills* and time management strategies that support *autonomy support* (Priyatna, Ilham, & Hasanah, 2024). Second, through digital literacy-based group counseling services, students can be engaged in reflective forums and *peer support* to improve *relatability* (Rimasiute-Knabikiene & Diržytė, 2025). Third, through the learning competency coaching program, counselors can direct students in the use of learning technology and digital applications to improve *competence* (Wahyuanda, 2025; Soliha, Wolor, & Swaramarinda, 2025).

Thus, all analysis results show that the learning motivation profile in the digital era is multidimensional, influenced by the integration between individual factors, the environment, and the digital education system. The results of this study reinforce the relevance of the theory of Self-Determination (Deci & Ryan, 2000) in the context of 21st century learning, as well as provide an empirical basis for the development of guidance and counseling services oriented towards strengthening students' motivation to learn. The implementation of digitally motivated services, not only serves to overcome the decline in interest in learning in the post-pandemic era, but also serves as a preventive strategy to maintain psychological balance and learning readiness of the digital native generation in the future.

8. CONCLUSION

Based on the results of a study of thirteen scientific articles analyzed through *the Self-Determination Theory* approach (Deci & Ryan, 2000), it can be concluded that students' learning motivation in the digital era forms a multidimensional profile, where the dimensions *of autonomy*, *competence*, and *relatedness* interact with each other in influencing students' learning behavior and success.

In general, students in the digital era show high intrinsic motivation, especially when they have the freedom to manage the learning process, access digital resources, and obtain social support from teachers and peers. This intrinsic motivation is the main motor for the formation of *self-regulated learning* that allows students to play

an active role in determining their own learning direction and strategy. Nonetheless, extrinsic motivations such as academic awards, teacher support, and digital education policies continue to serve as reinforcers in maintaining consistency and engagement in learning.

Furthermore, it was found that internal factors such as self-efficacy, self-regulation, and goal orientation, as well as external factors such as teacher support, digital literacy, learning media, and technology-based education policies—have complementary contributions in strengthening students' motivation to learn. When these two factors are balanced, students are not only able to develop cognitive abilities, but also achieve an affective and social balance that supports academic success in a digital environment.

These findings also confirm the importance of the strategic role of Guidance and Counseling (BK) services in facilitating the strengthening of students' learning motivation in the digital era. BK services need to integrate technology-based approaches, such as *digital learning guidance*, *peer counseling*, and *competence coaching*, to accommodate students' basic psychological needs in accordance with SDT principles. Thus, school counselors not only play a role in overcoming learning problems, but also in developing students' motivational capacity to be more adaptive to the dynamics of digital-based education.

9. AUTHORS' NOTE

The author declares that there is no conflict of interest related to the publication of this article. The author confirms that this article is free of plagiarism

10. REFERENCES

Deci, E. L., & Ryan, R. M. (2000). *The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior.* Psychological Inquiry, 11(4), 227–268.

Darmansah, T., Hasibuan, E. E., & Ray, A. U. M. (2024). *The role of technology-based education policy and student motivation in the digital era.* Harmony of Education.

Fatin Syahirah, F. R., Kabry, F., & Syuaira, G. A. (2023). *The role of teachers in increasing student learning motivation in the digital era.* Rays of the World.

Islawati, I., & Arwien, R. T. (2025). *Descriptive analysis of the implementation of online learning on the level of student learning independence in the digital era.* Indo-MathEdu Intellectuals Journal.

Kholid, K., & Darmawan, D. (2023). *The influence of digital literacy and learning media utilization on student learning motivation.* Fitrah.

Luqmanul Hakim, A. A., Buhera, R., & Subiantoro, A. W. (2025). *Digital era dynamics: Uncovering self-regulation patterns in science learning among border region junior high school students.* Journal Evaluation in Education.

Mertasari, N. M. S., & Paraniti, A. A. S. P. (2023). *COVID-19 effect: Profile of student learning motivation during online learning.* Nurture.

Nikolov, N. (2023). *Understanding student motivation in digital education.* Telecom Conference Proceedings.

Nursyamsiah, N. (2025). *The influence of educational digitalization policy on secondary school students' learning motivation.* Zahra Journal.

Priyatna, S. E., Ilham, I., & Hasanah, R. (2024). *Implementing online learning strategies to strengthen motivation and independence among students in the digital era.* Shamil : Journal of Islamic Religious Education.

Rimasiute-Knabikiene, R., & Diržytė, A. (2025). *Profiles of e-learners based on learning motivation: Differences in peer-to-peer confirmation and mental health.* Frontiers in Education.

Sari, M., & Surawan, S. (2025). *Self-regulated learning as a predictor of student learning independence in the digital era.* Nakula Journal.

Soliha, N. K., Wolor, C. W., & Swaramarinda, D. R. (2025). *The influence of digital competence and learning motivation on student performance in the office administration study program.* ISC-BEAM Proceedings.

Wahyuanda, R. (2025). *The influence of the 21st century learning environment, digital competence, and learning motivation on the learning achievement of SMKN 1 Bogor students.* And then there's Snoop Dogg.