



Digital Transformation in Guidance and Counseling: The Influence of Website Media on Students' Self-Awareness

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Abstract

Digital transformation in guidance and counseling leverages website media to enhance students' self-awareness, adapting to technological advancements in education. This study aims to test the effectiveness of website media in increasing students' self-awareness through group guidance services. The research method uses the Research and Development (R&D) approach with the continuous Borg & Gall model, involving class X students of SMK Mahardhika Batujajar. The research instrument is a self-awareness scale, with data analysis through the Kolmogorov-Smirnov and Shapiro-Wilk normality tests and the paired sample t-test effectiveness test. The results showed a significant increase in students' self-awareness, with a total pretest score of 1,224 increasing to 1,745 in the posttest. The normality test showed that the data was normally distributed with a Kolmogorov-Smirnov significance value of 0.261 and Shapiro-Wilk 0.726 (> 0.05). The paired sample t-test effectiveness test showed a Sig. (2-tailed) value of 0.000, which means that there is a significant difference between the pretest and posttest. In conclusion, website-based media has proven effective in increasing students' self-awareness with a more flexible and interactive approach. The contribution of this research includes a strategy for developing more adaptive technology-based guidance, providing more effective alternatives for students, and being a reference for teachers and counselors in integrating digital media in guidance and counseling services.

How to Cite this Article

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INTRODUCTION

Self-awareness is an important aspect in students' personal development, especially in forming good self-leadership. Intrapersonal self-awareness involves recognizing one's internal mental state, beliefs, and motivations, which are essential for personal growth (Elghazali & Allame, 2025). Self-awareness allows individuals to understand their strengths and weaknesses, manage emotions wisely, and assess the impact of their behavior on the surrounding environment (Harley, 2024). In the context of education, self-awareness plays a very important role in helping students make the right decisions, develop self-confidence, and improve healthy social relationships (Suarez et al., 2024). However, in reality, not all students have good self-awareness from an early age.

Based on initial observations at SMK Mahardhika Batujajar, it was found that some students had difficulty in recognizing their potential, managing emotions, and understanding how their actions affect others. This difficulty can be seen from students' low self-confidence in interacting with peers, lack of initiative in making decisions, and their tendency to act impulsively without considering the consequences. This condition shows that low self-awareness can have a negative impact on students' personal and social development.

One of the factors that causes low self-awareness in students is the lack of access to learning methods that can help them reflect on themselves (Sohail & Akram, 2025). Conventional approaches to guidance and counseling are often less attractive to students, so their effectiveness in increasing self-awareness is limited (Wallace & Jacoby, 2025). Therefore, innovation is needed in learning media that is more interactive and can reach students in a more interesting way.

To overcome this problem, the development of website-based media as a tool in group guidance services is an innovative alternative. The website can be a flexible, interactive, and easily accessible platform at any time by students (Maboe et al., 2018). Through this website, students can access various materials that help them recognize their potential, manage emotions, and improve decision-making skills. Websites can facilitate the development of emotional intelligence, which is essential for effective communication and understanding emotions in oneself and others (Okonigene & Imianvan, 2024). In addition, websites can also provide self-reflection features, self-awareness tests, and discussion forums that allow students to share experiences with their peers. Online discussion forums encourage peer-to-peer learning, which has been shown to have a positive impact on student performance and engagement. Students benefit from sharing experiences and insights, leading to a collaborative learning environment (Patel & Aghayere, 2006).

This study aims to test the effectiveness of self-leadership website media in increasing students' self-awareness. With this media, it is hoped that students will find it easier to understand their strengths and weaknesses, and be able to apply better emotional management strategies in their daily lives. In addition, the development of this website can also help guidance and counseling teachers in providing more efficient and structured

services to students. The website allows real-time communication between counselors, students, and parents, fostering a collaborative environment (Lestari & Ummah, 2025). Features such as chat and video calls can be integrated, allowing for direct support and guidance (Nugroho & Nurdahlia, 2024). In the development process, this website is designed by considering the needs of students and the principles of guidance and counseling. The materials presented on the website are arranged systematically so that they are easy for students to understand. In addition, interactive features such as self-reflection quizzes, digital daily journals, and decision-making simulations are added to enhance a deeper learning experience. It is hoped that with this website-based media, students can be more proactive in recognizing themselves and improving the quality of self-leadership (Odom & McKee, 2018); (Konradt et al., 2019). The ability to recognize and manage oneself well will have a positive impact on their academic and social development. Self-regulation involves managing emotions, behaviors, and thoughts to achieve academic goals. Students who effectively use volitional control and time management strategies demonstrate higher self-regulation, leading to improved academic performance (Lourenço & Paiva, 2024). The development of self-management skills, enhanced by communication and thinking skills, significantly contributes to students' academic competence and social interactions, fostering better relationships, creativity, and problem-solving abilities, which ultimately lead to positive outcomes in their personal and professional lives (Mahdy & Zaghloul, 2020). Thus, this program is expected to be an effective solution in improving students' self-awareness at SMK Mahardhika Batujajar.

In conclusion, self-awareness is a key factor in the development of students' self-leadership. However, many students still face difficulties in developing their self-awareness. Through the use of website-based media, it is hoped that students can gain wider access to resources that help them understand themselves. Thus, this study is the first step in creating more effective innovations in the field of guidance and counseling in schools.

Self-awareness is an important aspect in individual development, defined as a person's awareness of their own feelings, thoughts, and behaviors (Trukovich, 2024). Chio et al. (2024) explained that self-awareness positively affects individual well-being. Self-awareness is central to explaining an individual's existential meaning (Xi, 2024). Self-awareness is the competency of how feelings, ideas, and moral principles affect an individual's performance in various settings, including the family or the classroom (Rubab et al., 2024). Goleman emphasized that self-awareness is one of the main components of emotional intelligence that affects individual success in various aspects of life, including social relationships and academic achievement. The ability to understand oneself allows a person to better manage their emotions, make the right decisions, and build healthier relationships with others (Kaugi et al., 2024).

In the context of guidance and counseling, digital technology plays an increasingly important role in increasing the effectiveness of interventions (Nasution et al., 2025). Several studies, including those conducted by Kusumanegara et al. (2024) have

shown that the use of digital media in guidance and counseling services can help increase student engagement and strengthen the impact of the interventions provided. Technology makes guidance services more accessible and tailored to individual needs, thus supporting the development of psychological aspects, including self-awareness. An individual approach to tutoring encourages students to reflect on their learning process, increases self-awareness and promotes independent thinking (Vyshkivska et al., 2024). Psychological support integrated into tutoring can further facilitate professional self-development, helping students navigate their educational journey effectively (Sotnikova & Desyatnikova, 2024). Based on these findings, this study aims to develop and test the effectiveness of website media as a tool in group guidance services to increase student self-awareness. The website is designed to provide materials, reflections, and interactions that can help students understand themselves more deeply. With the presence of interactive digital media, it is hoped that group guidance services will become more interesting and have a more significant impact on increasing students' self-awareness.

The purpose of this study was to determine the effect of website media usage on increasing students' self-awareness through group guidance services. The benefits of this study are expected to contribute to the development of technology-based guidance and counseling strategies, thereby increasing the effectiveness of services for students. In addition, the results of this study can be a reference for guidance and counseling teachers in developing digital-based media that are more interactive and easily accessible to students.

METHOD

This research is a research and development (R&D) that aims to produce and test the effectiveness of a product. According to Sugiyono (2016), this method is used to create a particular product, not just to test the theory. Borg & Gall (1983) stated that R&D is a process to develop and validate educational products. Thus, this research focuses on innovation and product testing in the field of education. This study has two main variables, namely the independent variable (use of self-leadership website media) and the dependent variable (student self-awareness). The effectiveness of the website media is measured through changes in pretest and posttest scores before and after group guidance services.

The subjects of this study were students of class X AKL 1 at SMK Mahardhika Batujajar. Limited trials were conducted on 5 students, while extensive trials involved 36 students. From the results of the extensive trial, 8 students with low levels of self-awareness were selected to receive group guidance services using website media. The research instruments used include a self-awareness scale adapted from Goleman's emotional intelligence theory. Data analysis techniques include normality tests using Kolmogorov-Smirnov and Shapiro-Wilk, as well as effectiveness tests using paired sample t-tests to compare pretest and posttest results. This research procedure uses the Borg & Gall (1983) development model which is simplified into five steps. First, research and data collection through literature studies and field studies to understand the concept

and needs of website media development. Second, the planning stage includes designing website-based media about self-leadership. Third, development of a product draft that is validated by experts before being tested. Fourth, field trials are conducted on students with pretests and posttests to measure the effectiveness of the media. Fifth, product refinement based on the results of the trial, effectiveness evaluation, and input from practitioners and students to improve the quality of the media developed.

RESULTS AND DISCUSSION

The results of the study showed that the self-leadership website media was effective in increasing students' self-awareness. Digital transformation in the field of guidance and counseling has brought about major changes in learning methods and student self-development. Digital transformation enhances personalized learning environments and student engagement, encouraging self-development (Joseph et al., 2024). Technological advances enable the use of various digital-based media to support the guidance and counseling process more effectively and efficiently (Hidayat & Usanto, 2024). One aspect that is the main focus in this digital era is increasing student self-awareness, which plays an important role in personality development and better decision-making. Self-awareness helps students understand their preferences and emotions, leading to personal growth and better decision-making (Elghazali & Allame, 2025).

In this context, a study was conducted to measure the effectiveness of self-leadership website media in increasing student self-awareness (Mendemu & Manasa, 2014). Understanding one's media habits is essential for responsible internet use and helping students navigate the challenges and opportunities presented by digital technology (Moeller et al., 2012). The website is designed to provide information, reflection, and interactive exercises that help students better recognize their potential. Through features such as self-assessment quizzes, motivational articles, and online discussion rooms, students can better understand their strengths and weaknesses in the context of leadership and decision-making. Digitalization significantly impacts psychological development, leading to transformations in behavior and the formation of a specific digital personality (Korytova, 2024).

The results of the study showed that the use of this website-based media had a positive impact on increasing students' self-awareness. Statistical tests conducted showed a significant increase in students' self-awareness after using the platform. Thus, digital transformation in guidance and counseling can be an innovative solution in supporting students' personal and academic development. Educators recognize the potential of digital technology teaching and the need to improve the education system from elementary to high school (Makarova & Makarova, 2018). Digital transformation in guidance and counseling enhances personal support for students, leveraging technology to meet their unique needs. This innovation encourages academic growth and personal development, equipping advisors and students to navigate the evolving educational landscape effectively (Pelletier & Hutt, 2021).

The normality test using the Kolmogorov-Smirnov and Shapiro-Wilk methods

showed that the pretest and posttest data were normally distributed with significance values of 0.261 and 0.726 (> 0.05), respectively.

Table 1. Normality Test Results

Group	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Pretest	0.189	8	.200*	0.895	8	0.261
Posttest	0.229	8	.200*	0.951	8	0.726

From the results of the normality test in table 1, this indicates that the data used meets the assumption of normality, so that the statistical analysis carried out has good validity. Thus, the use of this website media can be recommended as an effective strategy to increase students' self-awareness in the context of education and self-leadership development. These results indicate that the data used meets the assumption of normality, so that the statistical analysis carried out has good validity. Thus, the results of this study can be used as a strong basis in supporting the effectiveness of website media in guidance and counseling.

Then, from the data on students' pretest and posttest scores, it can be seen in the following table:

Table 2. Total Results of Pretest and Posttest Scores

Student	Pretest	Posttest
A	162	228
B	175	212
C	154	220
D	167	221
E	165	205
F	148	223
G	126	216
H	127	220
Total	1224	1745

From table 2, the results of the study show a significant increase in students' self-awareness after using the self-leadership website media. The pretest and posttest score data show that the total pretest score of 1,224 increased to 1,745 in the posttest, which reflects positive developments in each student. This increase in score indicates that the website media used is effective in helping students increase their self-awareness. Thus, the application of this media can be used as an alternative in guidance and counseling strategies to develop students' self-leadership. These results also indicate that a technology-based approach can have a positive impact on students' psychological aspects and personal skills in the learning and self-development process. This increase shows that almost all students experienced development in their self-awareness after using website-based media. This change shows that the use of technology in guidance and counseling can contribute to improving students' psychological aspects (Muhammad, 2024); (Yola

Furthermore, the effectiveness test with paired sample t-test shows that the Sig. (2-tailed) value is 0.000, which means it is smaller than 0.05. Thus, there is a significant difference between the pretest and posttest results, which shows that the website media is effective in increasing students' self-awareness.

Table 3. Total Score Results of Pretest and Posttest

Paired Samples Test		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre Test - Post Test	-65.125	20.843	7.369	-82.550	-47.700	-8.838	7	0.000

Then, from table 3, the results of the study show that the self-leadership website media is effective in increasing students' self-awareness. The effectiveness test using the paired sample t-test shows a Sig. (2-tailed) value of 0.000, which is smaller than 0.05, so there is a significant difference between the pretest and posttest results. The average increase in score is 65.125 with a difference within the 95% confidence range between -82.550 to -47.700. This finding indicates that the use of website-based media can be an effective method in increasing students' self-awareness. Therefore, this media can be recommended as a supporting tool in developing self-leadership in the context of education.

The website media developed in this study offers a more flexible and attractive approach for students in developing self-awareness. This website is designed so that students can learn independently with wider access compared to conventional methods. The website also aims to improve the teaching and learning experience by providing interactivity and accessibility, allowing high school students to learn independently (Castillo et al., 2024). This website facilitates independent learning by utilizing digital technology, allowing students to access a wider range of educational resources outside of traditional classroom settings, thereby increasing flexibility, autonomy, and opportunities for interactive discussions compared to conventional learning methods. Various interactive features, such as self-reflection quizzes, leadership modules, and online discussion forums, provide a more dynamic and personalized learning experience. Interactive features such as discussion forums and real-time assessments enhance the learning experience by encouraging engagement and collaboration among students (Nachankar, 2024). Thus, students can explore their potential without the constraints of time and place, allowing them to better understand their personal strengths and weaknesses in more depth.

In addition, the integration of technology in guidance and counseling is increasingly relevant to the development of the times (Rashid et al., 2024). Modern education is no longer limited to classroom learning, but also utilizes technology to

increase the effectiveness of the learning process. Technology enables a customized educational experience, adapting to individual learning styles and paces (Daudova & Katsueva, 2024; Mendoza et al., 2024). This website media is one of the innovative solutions that supports students in understanding the concept of self-leadership more independently and sustainably. With easy access and systematically designed materials, this website contributes to building students' self-awareness, which can ultimately help them make better decisions in the future (Grimard, 2017). The use of digital media in guidance and counseling opens up opportunities for personalizing materials that are more in line with the needs of individual students. Digital counseling platforms have shown positive impacts on students' emotional resilience and academic performance, helping them manage stress and anxiety effectively (Hidayat & Usanto, 2024).

With the existence of website media, students can access various information, learning modules, and relevant resources independently, anytime and anywhere, according to their speed and learning style (Utami et al., 2024). This allows for a more flexible and effective learning experience compared to conventional methods. In addition, the interactive features available, such as self-reflection quizzes, decision-making simulations, discussion forums, and online consultations, can increase student engagement in the learning process. With this approach, students are not only recipients of information, but are also actively involved in their self-development. Digital technology in guidance and counseling allows for a more adaptive and responsive approach, so that students can gain a deeper understanding of their potential and direction of self-development (Goodrich et al., 2020; Issa et al., 2024). In the context of education, increasing self-awareness plays a very crucial role because it is related to students' ability to recognize their own potential, strengths, and weaknesses (Musinguzi et al., 2024; Suarez et al., 2024). High self-awareness allows students to better understand their emotions, so they can better manage stress and academic pressure. Increasing self-awareness helps in recognizing personal potential, strengths, and weaknesses, which are important for effective interpersonal relationships and personal development (Marubu et al., 2024).

In addition, good self-awareness also contributes to increasing learning motivation, because students are able to set more realistic goals and are oriented towards self-development. Good self-awareness increases learning motivation by allowing students to set realistic goals and are oriented towards self-development (Radu, 2018). Not only that, high self-awareness also has an impact on students' ability to build more harmonious social relationships with peers, teachers, and the surrounding environment, because they are better able to empathize and communicate effectively. Increased self-awareness improves students' ability to recognize their thoughts, emotions, and behaviors, facilitating personal growth (Lavigna & La Torre, 2024). Therefore, strengthening self-awareness through digital media is a strategic step in guidance and counseling, considering that technology can provide broad, flexible, and interactive access to help students recognize and develop their potential more optimally.

In addition to providing benefits for students, the use of website-based media also

provides benefits for counselors and educators. In line with research conducted by Musfira & Muslima (2024) explains that web-based media gives students direct access to career information, as shown by a study where 88% of students reported an increased understanding of career choices after using web-based services. Through digital platforms, counselors can monitor student development more systematically and accurately (Andi & Nugroho, 2024). Data generated from student interactions with the website can be used to analyze self-awareness development trends and provide more appropriate interventions. However, although the results of the study show the effectiveness of website media in increasing self-awareness, there are several challenges that need to be considered in its implementation. One of them is the readiness of infrastructure and accessibility of technology in schools. Not all schools have adequate technology facilities to support the use of digital media in guidance and counseling.

In addition, the readiness factor of students and teachers in adopting technology is an important aspect that needs to be considered in the implementation of digital media in guidance and counseling (Jamain et al., 2024; Nguyen et al., 2024). Although the current generation is more familiar with technology, the use of website media still requires adequate guidance and training in order to run optimally. Students need to be equipped with an understanding of how to use the platform effectively, while teachers and counselors must have the skills to manage and integrate this technology into the learning and guidance process (Gökoğlu & Çakıroğlu, 2017). With good readiness, the use of digital media can provide maximum benefits for student development.

From a psychological aspect, the effectiveness of digital media in increasing self-awareness is greatly influenced by students' internal factors, such as their level of motivation, interest, and involvement in the learning process (Salikhova et al., 2020). Students who have high motivation tend to be more active in exploring materials, using interactive features, and reflecting on their understanding of the concept of self-awareness. However, for students with low levels of motivation, additional strategies are needed to keep them involved in the learning process. Therefore, a more holistic approach is needed, by combining digital methods and direct interaction in guidance and counseling to provide more optimal support for the development of students' self-awareness.

This study has significant implications for the world of education and guidance and counseling, especially in the use of technology as a tool to support student self-development. The integration of digital technology in the guidance process allows students to more easily access materials, carry out self-reflection, and increase their self-awareness independently. Digital tools encourage self-assessment and reflection through interactive features, allowing students to evaluate their understanding and progress (Vigel & Mettini, 2024). Along with the rapid development of technology, it is important to continue to conduct further research to explore the potential of other digital media, such as artificial intelligence-based applications or adaptive learning platforms, in supporting student psychological development (Langat, 2025). Thus, technology can be utilized more optimally to increase the effectiveness of guidance and counseling.

In the future, the development of technology-based media in guidance and

counseling must be increasingly adaptive by integrating artificial intelligence and data analytics (Brue & Brue, 2024). This technology allows the system to analyze the needs, preferences, and characteristics of individual students so that it can present more relevant materials and more targeted interventions. With a system that is able to automatically adjust content and guidance methods based on student profiles, the learning experience becomes more personal and effective (Thapliyal & Valiyaveetil, 2024). In addition, artificial intelligence can also help counselors monitor student development in real-time, so that the guidance provided can be more responsive and data-based. In conclusion, this study proves that digital transformation in guidance and counseling, especially through self-leadership website media, has a significant positive impact on increasing students' self-awareness. The use of digital media allows students to access materials flexibly, carry out self-reflection, and gain a more interactive learning experience (Raju & Raju, 2024). The results of the study showing a significant increase in students' self-awareness are evidence that technology can be an effective solution in supporting self-development. Therefore, the use of digital-based media needs to continue to be developed so that it is more optimal in helping students understand their potential and personal character.

With the increasingly widespread use of technology in all aspects of life, guidance and counseling services have the opportunity to evolve and become more adaptive, innovative, and responsive to the diverse and dynamic needs of students. As students grow up in an environment saturated with digital tools, it is essential for counselors to leverage these technologies to enhance the accessibility, relevance, and effectiveness of their services. Digital media integration in guidance and counseling not only allows for more personalized and immediate support but also opens up new avenues for interactive learning, self-reflection, and mental health monitoring. Platforms such as mobile apps, online counseling sessions, virtual reality for career exploration, and digital assessments can greatly enrich the counseling experience. Therefore, ongoing development and implementation of digital approaches in school counseling are crucial to ensure that students receive optimal support for their academic, social, emotional, and career development in this fast-paced digital era.

CONCLUSION

Digital transformation in guidance and counseling has been proven to have a positive impact on increasing students' self-awareness. The results of the study showed that the use of self-leadership website media significantly increased students' self-awareness, as evidenced by valid and reliable statistical analysis. With interactive features such as self-reflection quizzes, motivational articles, and online discussion forums, students can better understand their potential and weaknesses in decision making. The results of the effectiveness test showed that the increase in self-awareness after using this website media was significant, indicating that a technology-based approach can be an innovative solution in supporting students' personal and academic development. Therefore, the use of digital media in guidance and counseling needs to be continuously developed so that it can be more effective in helping students explore their potential.

Theoretically, this study contributes to the development of psychology as a science, especially in the realm of educational psychology and guidance. The integration of technology in guidance and counseling opens up opportunities for more adaptive and data-based personalization of psychological interventions, allowing students to gain learning experiences that are more suited to their needs. In addition, the results of this study can also be the basis for the development of a more inclusive, flexible, and effective technology-based guidance model. With the rapid development of digital technology, further research is needed to explore the integration of artificial intelligence and data analytics in supporting students' psychological development in more depth.

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