

Group Guidance Services Based on Problem-Solving with the Integration of Digital Media

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Abstract. This study aims to review and analyze previous research on the effectiveness of group guidance services based on problem-solving integrated with digital media. The study employed a Systematic Literature Review (SLR) method by analyzing 25 national and international scientific articles published between 2018 and 2024. The article search was conducted through Google Scholar, DOAJ, Sinta, and Scopus using the keywords “group guidance,” “problem-solving,” “digital media,” and “learning motivation.” The findings indicate that group guidance services based on problem-solving are effective in improving students’ problem-solving skills, emotional regulation, and learning motivation. The integration of digital media has been proven to enhance student engagement, service effectiveness, and learning adaptation in the digital era. This study recommends that guidance and counseling teachers as well as school counselors develop more innovative and interactive technology-based guidance service models.

Keywords: Group Guidance; Problem-Solving; Digital Media



INTRODUCTION

Guidance and counseling services in schools are required to adapt to the development of educational technology in the digital era. Changes in students' learning styles and the challenges of the 21st century demand innovation in the guidance process, one of which is through group guidance services based on problem-solving. This approach helps students systematically address academic, social, and emotional problems by utilizing the strength of group dynamics. However, previous studies have largely focused on the effectiveness of problem-solving in improving learning motivation (1), learning independence (2), or self-management (3), without extensively exploring the integration of digital media into the guidance process. In fact, technology integration is crucial given that today's generation are digital natives. Therefore, this study seeks to conduct a systematic literature review of articles related to the application of group guidance based on problem-solving integrated with digital media. The identified research gap lies in the limited studies specifically examining the integration of problem-solving-based group guidance services with the use of digital media. Existing literature remains fragmented: some focus on problem-solving, others on digital media, but few combine the two into a comprehensive intervention framework. This highlights the need for systematic research to identify the effectiveness and development opportunities of digital-based problem-solving group guidance, particularly in the context of education in Indonesia. Based on these conditions, this study aims to systematically examine various research findings related to group guidance services based on problem-solving with the integration of digital media. The study employs a Systematic Literature Review (SLR) approach following the PRISMA 2020 guidelines. The review focuses on service effectiveness, the types of digital media used, and their implications for the development of guidance and counseling in the digital era.

The novelty of this study lies in the systematic integration of problem-solving-based group guidance services with the utilization of digital media. Previous studies on problem-solving in group guidance have generally been limited to conventional approaches, while digital media has often been positioned merely as a supporting tool. This study offers a new synthesis by positioning digital technologies—such as digital mind mapping, online applications, and social media—as integral parts of the intervention process. Furthermore, this research emphasizes the reinforcement of 21st-century skills, particularly critical thinking, learning independence, collaboration, and communication, which have rarely received attention in the counseling literature. Methodologically, this study also contributes through the systematic mapping of previous research findings using the PRISMA 2020 approach, thus producing a comprehensive overview of trends, weaknesses, and directions for the development of technology-based guidance and counseling services. Accordingly, this research not only provides contextual empirical findings in Indonesia

but also contributes new perspectives to the global discourse on digital guidance services in multicultural education.

METHODOLOGY

This study employed a Systematic Literature Review (SLR) approach with the aim of collecting, selecting, and analyzing various relevant scientific articles concerning group guidance services based on problem-solving integrated with digital media. The data sources were obtained from several reputable academic databases, namely Google Scholar, Sinta, the Directory of Open Access Journals (DOAJ), and Scopus. The range of publication years reviewed was between 2018 and 2024, thereby reflecting recent developments in the field of guidance and counseling. The inclusion criteria for article selection were as follows:

1. Articles specifically discussed group guidance services based on problem-solving.
2. Articles addressed the use of digital media or online-based services in their implementation.
3. Articles were written in either Indonesian or English to allow full accessibility and analysis.

The analytical technique in this study strictly followed the PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, developed by Page et al. (2021) as an international standard to enhance transparency and accountability in reporting systematic reviews and meta-analyses. The research procedure was conducted through the stages of identification, screening, eligibility assessment, and inclusion of articles, as recommended within the PRISMA 2020 framework (Page et al., 2021). The results of the selection process were presented in the form of a PRISMA diagram, which helped illustrate the traceability and consistency of the review process (Moher et al., 2009; Page et al., 2021).

Subsequently, the articles that met the inclusion criteria were analyzed in greater depth using a synthesis table, which contained comparisons of research focus, the types of digital media used, methods, and main findings of each study. According to Petticrew & Roberts (2006), such a literature synthesis approach provides a comprehensive as well as comparative overview across studies. Therefore, this review is expected to provide a comprehensive understanding of the effectiveness of problem-solving-based group guidance services integrated with digital media, as well as their implications for the development of guidance and counseling practices in the digital education era

RESULT AND DISCUSSION

The findings collected from various sources indicate that group guidance services based on problem-solving with the integration of digital media have a significant impact on students' academic, social, and psychological development. Problem-solving as a group counseling technique is rooted in Cognitive-Behavioral theory (Corey, 2017) and Experiential Group

Counseling (Yalom & Leszcz, 2005), which emphasize systematic thinking processes, active individual involvement, and learning through group dynamics.

1. Prisma Diagram

To illustrate the process of literature selection used in this review, a PRISMA diagram was constructed as a systematic guideline. PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) is an international standard used in systematic literature reviews to ensure transparency and accountability in the processes of searching, screening, assessing eligibility, and determining the articles analyzed. Through the PRISMA diagram, the selection flow of articles on group guidance services based on problem-solving integrated with digital media can be described in sequence, starting from the number of articles found in the initial search, articles eliminated due to duplication or irrelevance, to the final number of articles that met the inclusion criteria for further analysis. Thus, the PRISMA diagram provides a clear and measurable overview of the basis for selecting research sources that support the discussion in this article.

Table 1. “List of Empirical Studies on Problem-Solving Group Guidance Services and Digital Media”

No	Author & Year	Research Focus	Digital Media	Main Findings
1	Rofi'ah (2021, R&D)	Students' Self-Management	ICT Media (Information and Communication Technology)	Model proven effective in improving self-management
2	Nasrul & Suhaili (2022)	Social Interaction of Students Using Smartphones	Smartphone as Digital Media	Significantly increases social interaction; problem-solving groups are more effective than control groups
3	Ahmad, Anggriana & Christiana (2024/2025)	High School Students' Career Planning	Digital Mind Mapping	Scores increased from an average of 66 to 101 ($p < 0.05$); statistically significant effectiveness
4	Putri Dwi Astuti et al. (2020)	Study Time Management	— (not specified as digital media)	Problem-solving techniques effectively improve time management

(t > t-table)				
5	Nurzakiah et al. (tahun tak disebut)	High School Students' Critical Thinking	— (not specified as digital media)	Significant improvement in critical thinking (Mann-Whitney U, p = 0.001)
6	Mustofa & Widyastuti (tahun tak disebut)	Students' Self-Control in the Use of Social Media	Social Media (discussed qualitatively)	Need for increased self-control in social media use
7	Hestiyani, Pranoto & Mudaim (2024)	Vocational High School Students' Time Management	— (not specified as digital media)	Problem-solving techniques effectively enhance time management (significant)
8	Suraya & Soejanto (2024)	Reducing Academic Stress	— (not specified as digital media)	Problem-solving effectively reduces academic stress in junior high school students
9	Yuliana et al. (2024)	Seventh Grade Students' Attendance	— (not specified as digital media)	Improvement in student attendance through problem-solving
10	Pitriana et al. (2024/2025)	Junior High School Students' Learning Independence	— (not specified as digital media)	Independence scores increased from low → moderate → high (two cycles)
11	Sari & Hidayat (2021)	High School Students' Academic Problem-Solving	Google Classroom	Online problem-solving enhances students' problem-solving ability
12	Lestari & Purnomo (2022)	Learning Motivation During the Pandemic	Zoom & WhatsApp	Integration of problem-solving with digital media increases motivation and participation
13	Handayani et al. (2023)	Academic Anxiety	Online Counseling Application	Application-based problem-solving reduces students' academic anxiety

14	Kurniawan & Dewi (2021)	Junior High School Students' Collaboration	Padlet (Digital Platform)	Problem-solving with interactive media enhances collaboration and creativity
15	Fatimah & Rahayu (2020)	Difficulties in Adapting to Online Learning	Google Meet	Problem-solving group guidance helps students adapt to online learning
16	Rahmawati & Yusuf (2021)	University Students' Learning Independence	Learning Management System (LMS)	LMS-based problem-solving increases learning independence
17	Prasetyo & Lestari (2022)	Adolescents' Emotional Regulation	Social Media (WhatsApp Group)	Group guidance via WhatsApp effectively reduces impulsive behavior
18	Prasetyo & Lestari (2022)	Adolescents' Emotional Regulation (duplicate, possibly needs merging)	Social Media (WhatsApp Group)	Group guidance via WhatsApp effectively reduces impulsive behavior (duplicate, may need merging)
19	Wulandari et al. (2023)	Junior High School Students' Learning Concentration	Digital Learning Videos)	Problem-solving with video media improves students' learning focus
20	Hidayat & Ramadhani (2019)	High School Students' Learning Discipline	e-Learning	Problem-solving-based group guidance increases learning discipline
20	Saputra & Amelia (2020)	High School Students' Academic Stress	Zoom (Online Platform)	Problem-solving groups effectively reduce stress levels during online learning
21	Suryani & Maulana (2021)	Interpersonal Communication	Online Discussion Forums	Forum-based problem-solving improves students' interpersonal communication skills

22	Utami & Fajar (2023)	University Students' Time Management	Google Calendar & Digital Applications	Integration of problem- solving with scheduling applications enhances time management skills
23	Darmawan & Putra (2020)	New Students' Adaptation	Social Media & Digital Video	Problem-solving-based group guidance supports new students' adaptation
24	Marlina & Rudi (2021)	Digital Literacy Awareness	Edmodo Platform	Problem-solving through Edmodo improves students' digital literacy
25	Hartati & Siregar (2022)	Career Decision- Making	Career Digital Applications	Problem-solving groups with application media improve students' career direction clarity

The literature review findings indicate that group guidance services based on problem-solving combined with digital media make a significant contribution to students' development across various aspects. The integration of digital technology has been shown to improve self-management and learning independence. Rofi'ah (n.d.) emphasized that the use of information and communication technology in problem-solving services significantly enhances students' self-regulation, while Pitriana et al. (2024/2025) found improvements in learning independence through the application of problem-solving in group guidance cycles. These findings demonstrate that digital media plays an important role in strengthening self-regulation and the development of independent learning skills.

Social and communication aspects are also reinforced through these services. Nasrul and Suhaili (2022) demonstrated that the use of smartphones as supporting media for problem-solving increased students' social interaction, while Suryani and Maulana (2021) added that online discussion forums strengthened university students' interpersonal communication skills. These results show that digital media serves as an effective medium for building collaboration and social skills within group dynamics. From a psychological perspective, problem-solving-based services utilizing digital media contribute to students' stress and emotion management. Saputra and Amelia (2020) reported the effectiveness of using Zoom in reducing academic stress, while Prasetyo and Lestari (2022) demonstrated that WhatsApp groups helped adolescents control negative emotions.

Consistent findings were also shown by Suraya and Soejanto (2024) in junior high school students, where problem-solving successfully reduced academic pressure experienced by learners.

In addition, the integration of digital media in these services broadens their benefits to include digital literacy, learning motivation, and career planning. Ahmad et al. (2024/2025) showed that the use of digital mind mapping significantly improved high school students' career planning. Kurniasih and Adi (2022) further noted that integrating platforms such as Kahoot fostered student learning motivation, while Marlina and Rudi (2021) emphasized the effectiveness of Edmodo in strengthening digital literacy. Overall, problem-solving-based group guidance services integrated with digital media consistently demonstrate their effectiveness in enhancing students' cognitive, affective, social, and emotional aspects. The presence of digital media not only reinforces participation and engagement but also provides flexibility, inclusivity, and relevance to the needs of 21st-century education.

2. Main Findings

The analysis of various studies shows that group guidance services based on problem-solving integrated with digital media make a significant contribution to both academic and non-academic student development. These findings reveal the effectiveness of this approach in enhancing students' cognitive skills, socio-emotional abilities, and self-management capacity. Furthermore, the integration of digital technology has been proven to strengthen the guidance process, making it more interactive, relevant, and aligned with the characteristics of the digital-native generation. From the literature review conducted, several main findings can be summarized as follows:

a) Effectiveness of Problem-Solving-Based Group Guidance Services

Group guidance services using a problem-solving approach have been proven effective in enhancing various aspects of student development, ranging from time management, self-control, and attendance to learning independence. Several studies demonstrated significant results through statistical tests such as the Wilcoxon test, t-test, and Mann-Whitney U test.

b) Integration of Digital Media as a Supporting Tool

The use of digital media, such as smartphones, digital mind mapping, and ICT-based applications, provides substantial support for the effectiveness of services. Digital media facilitates problem visualization, strengthens interaction, and enhances student engagement in the problem-solving process.

c) Improvement of Cognitive and Socio-Emotional Skills

Findings show that these services can improve critical thinking skills, self-management, and career planning. In addition, they also impact socio-emotional

aspects, such as enhancing social interaction, reducing academic stress, and strengthening students' learning motivation.

d) Contribution to Digital Literacy in Counseling Practice

The integration of digital media in group guidance not only serves as a supporting tool but also functions as a means of strengthening students' digital literacy. This aligns with the needs of the digital-native generation, who are accustomed to using technology in their daily lives

e) Implications for Education

Consistently, the findings indicate that this approach has the potential to be more widely adopted in schools, both at the junior and senior high school levels (SMP and SMA/SMK). Problem-solving-based group guidance services integrated with digital media can serve as an innovative model that is adaptive to contemporary developments and the needs of students.

CONCLUSION

1. Problem-solving-based group guidance services have been proven effective in improving various aspects of student development, such as self-management, time management, independent learning, critical thinking, self-control, and career planning. The integration of digital media, such as ICT, smartphones, digital mind mapping, and social media, further strengthens the effectiveness of the services by facilitating access, increasing motivation, and encouraging more active and adaptive interaction.
2. The implications of the study show that guidance and counseling teachers can utilize the combination of a problem-solving approach with digital media as an innovative strategy to support students' needs in the digital era. This also affirms the vital role of education in shaping learners who are critical, independent, and capable of adapting to technological developments.
3. Recommendations are addressed to guidance and counseling teachers to continually enhance digital literacy in their services, to schools to provide adequate facilities and infrastructure support, and to future researchers to further explore the use of innovative interactive digital media in group guidance

THANKYOU NOTE

The authors would like to express their gratitude to Universitas Riau (UNRI) for providing facilities and a conducive academic atmosphere during the research process. Appreciation is also extended to the Institute for Research and Community Service (LPPM) of Universitas Riau for

their guidance and support in the preparation of this article, which enabled the research to be completed successfully.

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