

# Developing a Digital e-Counselor Community Platform to Enhance Collaboration and Knowledge Sharing Among Counselors

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## Abstract

Digital platforms play an essential role in supporting professional collaboration in counseling practices. In the current digital era, technology-based platforms are increasingly needed to enhance the effectiveness, accessibility, and quality of counseling services, particularly in fostering collaboration and knowledge sharing among counselors. This study aims to develop a Digital e-Counselor Community Platform to support professional interaction, exchange of best practices, and continuous professional development among counselors. The method used in this study is Research and Development (R&D) with a 4-D development model consisting of define, design, develop, and disseminate stages. The results indicate that this study successfully produced a valid and practical digital platform for counselor communities. The validation process involved three counseling experts and three media experts. The average validity score for the material aspect reached 0.9, categorized as highly valid, while the media aspect also obtained an average score of 0.9, indicating high validity. Furthermore, the practicality test conducted with ten school counselors showed that the platform was categorized as very practical based on high scores in clarity, accuracy, and usability aspects. These findings indicate that the developed platform is feasible for implementation and effectively supports professional collaboration among counselors. Implications for future research include testing the effectiveness of the platform on a larger scale, integrating more advanced interactive features, and exploring its application in various counseling contexts to further enhance counselor competence and service quality.

## Introduction

The development of digital technology plays a significant role in driving transformation in various areas of life, including education and guidance and counseling services. This transformation not only changes the way individuals communicate but also influences professional interaction patterns and service models, which are increasingly technology-based and flexible. In this context, counseling services are no longer limited to conventional approaches but are evolving toward adaptive, collaborative practices integrated with digital technology to improve service quality (Redecker, 2017; Ristianti et al., 2025; Teräs, 2022). This development also marks an epistemological shift in counseling practice, where technology functions not merely as a tool but as an integral part of constructing intervention processes and therapeutic relationships. Furthermore, the integration of digital technology allows for the reconceptualization of counseling services towards a more scalable, data-driven, and user-needs-based model, although at the same time it raises challenges related to counselor competency readiness, professional ethics, and the validity and effectiveness of digital-based interventions that still require strengthening empirical evidence (Békés & Aafjes-van Doorn, 2020; Wind et al., 2020).

However, in practice, collaboration between counselors is still not optimal. Many counselors still work individually within their respective institutions, with limited access to best practices, service innovations, and relevant professional resources. This situation results in limited exchange of knowledge and experience between counselors, which ultimately impacts competency gaps and the quality of counseling services provided to (Choorat & Kramanon, 2025). Furthermore, counselors' readiness to utilize digital technology still faces various obstacles, such as limited digital literacy and a lack of adequate system support (Turcotte & Goyer, 2023). Furthermore, this fragmentation of professional practice demonstrates a gap between the demands of counseling services in the digital era and counselors' adaptive capacity to integrate technology effectively and ethically into their practice (Kerdnaimongkol, 2025). The lack of a structured digital-based collaborative ecosystem also weakens opportunities for co-construction of knowledge between counselors, so service innovations tend to develop fragmentedly and are not widely disseminated. In the long term, this condition has the potential to slow down the transformation of counseling services towards a more integrative model, responsive to the needs of clients, and based on strong evidence in the context of digital technology developments (Bird et al., 2019).

These issues indicate the need for an approach capable of strengthening collaboration and continuous professional learning among counselors. One relevant approach is the community of practice, which emphasizes learning through social interaction, collective reflection, and shared experiences (Kerdnaimongkol, 2025). This approach has proven effective in enhancing professional competence through active engagement in a supportive community (Bird et al., 2019). With current technological developments, this concept has transformed into a digital-based professional community that enables interaction without the constraints of space and time (Chen & Gao, 2024; Wenger, 1998). Recent literature emphasizes that the effectiveness of a community of practice is greatly influenced by the existence of a supportive ecosystem, including technological facilitation, collaborative leadership, and sustained interactions that enable dynamic knowledge co-construction (Kim & Kim, 2024; Sadiq, 2020). Without such support, the community risks becoming passive and unable to significantly impact the quality of professional services (Milton et al., 2025). Therefore, the development of digital-based professional communities needs to be strategically designed so that they not only serve as a communication platform, but also as a systemic mechanism for improving competence, service innovation, and the quality of counseling practice on an ongoing basis.

In line with these developments, the use of digital platforms has become a potential solution to support collaboration between counselors. Digital platforms enable counselors to connect more broadly, share resources in real time, and flexibly access a variety of information and best practices (Buğa et al., 2026). Furthermore, the use of digital platforms in the counseling context has also been shown to increase service accessibility, strengthen professional communication, and support the effectiveness of psychological interventions in various settings (Côté & Lane, 2024). In recent developments, digital platforms function not only as a communication medium but also as a professional learning infrastructure that enables the integration of practice, reflection, and data-driven evaluation in counseling services. Recent studies have shown that the use of digital platforms in mental health and education services can increase user engagement and intervention effectiveness through a more personalized and adaptive approach (Côté & Lane, 2024; Hutton et al., 2023). Furthermore, the use of digital technology also opens up opportunities to develop collaborative ecosystems across institutions and contexts, thereby enriching professional perspectives and accelerating the dissemination of innovative counseling practices (Siglen et al., 2022). However, the effectiveness of digital platforms depends heavily on user-centered system design and the readiness of professionals to ethically and competently integrate technology into their practice.

Several previous studies have examined the use of digital technology in counseling services, particularly in the form of e-counseling, which focuses on providing services to clients. These studies indicate that the use of digital technology in counseling has a positive impact on service access and intervention efficiency (Smith & Gillon, 2021). However, research specifically developing digital platforms to support professional counselor communities remains very limited. Yet, strengthening counselor capacity through collaboration and knowledge sharing is a crucial factor in improving the overall quality of counseling services (Maola, Syifa Nurul, 2025). This limitation indicates a conceptual and practical gap between the use of technology for direct services to clients and its use as a means for collective and ongoing counselor professional development. Recent literature indicates that most digital innovations in the mental health sector are still oriented toward client-facing interventions, while approaches focused on strengthening the professional learning ecosystem have not yet developed optimally (Maola, Syifa Nurul, 2025). Furthermore, the lack of platforms specifically designed to support professional interaction, peer supervision, and evidence-based practice exchanges has led to sporadic and unstructured learning among counselors (Schlenger et al., 2025). This situation reinforces the urgency of developing digital platforms that serve not only as service channels but also as collaborative

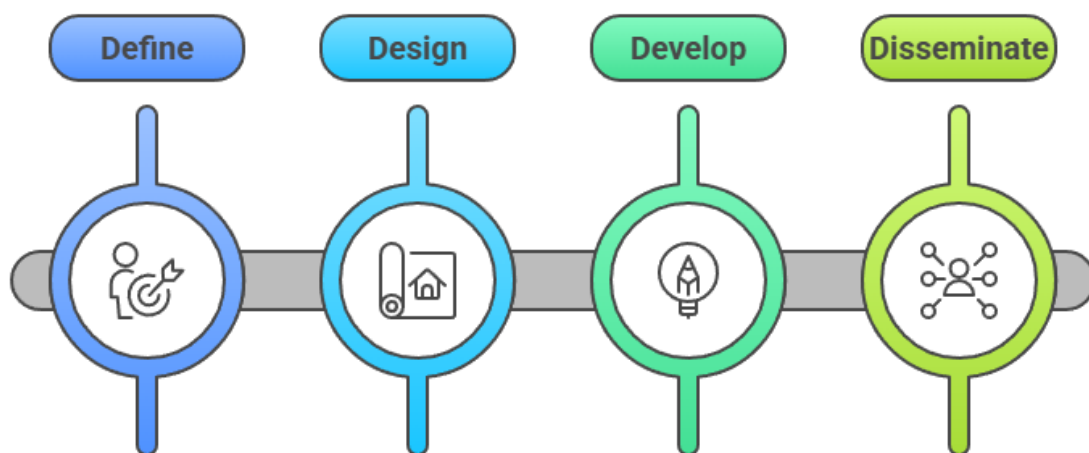
spaces capable of facilitating knowledge sharing, reflection on practice, and systematic and sustainable strengthening of professional competencies within the counselor community.

Based on this description, innovation is needed in the form of developing a digital platform that can serve as a forum for collaboration and knowledge sharing for counselors. Therefore, this research aims to develop a Digital e-Counselor Community Platform as a medium that supports professional interaction, the exchange of best practices, and the continuous strengthening of counselor competencies. This platform is expected to create a counselor community ecosystem that is more integrated, adaptive, and responsive to the challenges of counseling services in the digital era.

## Methods

### Design

This research is a development study aimed at developing and testing the feasibility of a product in the form of a Digital e-Counselor Community platform. The approach used is the Research and Development (R&D) method, adopting the 4D development model (Four-D Model), which includes the stages of define, design, develop, and disseminate (Reigeluth et al., 2024). The R&D method is used to systematically design and refine technology-based products to meet user needs. The development of digital platforms in counseling services is becoming increasingly important as the acceleration of digital transformation demands innovation in technology-based services in the field of guidance and (Serah et al., 2026).



**Figure 1.** 4D (Four-D Model)

In the define stage, a needs analysis is conducted regarding collaboration and knowledge sharing between counselors, including an analysis of user characteristics and the context of digital counseling services. The design stage focuses on designing the platform concept, system structure, and key features. The develop stage involves prototype development and expert validation. The final stage, disseminate, involves limited trials to determine product acceptability. This phased development approach aligns with recent research emphasizing the importance of developing digital systems to meet user needs and improve service effectiveness.

### Participants

Participants in this study consisted of seven professional counselors selected using purposive sampling. Participant criteria included educational background in guidance and counseling, practical experience, and skills in using digital technology. Counselors were selected as validators based on their role as primary users in the development of the professional community platform. Recent research indicates that practitioner involvement in digital system development is crucial to ensuring the relevance, acceptability, and successful implementation of technology in counseling service (Popoola et al., 2025).

**Table 1.** Demographic Profile of Participants

No	Gender	Country	Academic Qualification	Professional Experineces
1	Male	Indonesia	Bachelor	6 Years
2	Male	Malaysia	Bachelor	7 Years
3	Female	USA	Master	8 Years
4	Female	UK	Master	8 Years
5	Female	Australia	Master	7 Years
6	Male	Indonesia	Master	7 Years
7	Male	Indonesia	Bachelor	6 Years
8	Female	Malaysia	Bachelor	7 Years
9	Male	Indonesia	Bachelor	7 Years
10	Female	Malaysia	Bachelor	6 Years

### Data Collection

Data collection was conducted using a validation questionnaire designed to assess the appropriateness of the media. The use of expert-perception-based instruments in digital platform evaluation has been widely used in recent research, particularly to assess system quality, usability, and the effectiveness of technology in counseling services. Studies show that digital platforms designed with interactivity and usability in mind can improve user engagement and the quality of professional services (Pornpongtechavanich & Wannapiroon, 2021). The instrument in this study covered several key aspects: accuracy, usability, feasibility, and attractiveness. The Likert scale used was four-choice answers. The questionnaire allowed for a systematic and structured measurement of validators' perceptions of the product being developed. This study employed three experts who focused on media, specifically those related to cybercounseling and online counseling. Expert criteria were determined by a minimum of five years of professional experience in the field.

Furthermore, the quality of the Counselor Community Platform material was assessed based on the quality of experts who have focused on research in this field. The selection of three counselors with diverse demographic backgrounds served as the basis for determining the quality of the assessment differentiation. Furthermore, more than five years of professional experience was a key indicator in determining the counselor expert. The assessment scale used in this study also had four answer choices. This was to maintain the objectivity of the assessment results regarding the counseling content that had been developed. Aspects measured by the counselor experts included clarity, accuracy, and usefulness. Details of the media experts and counseling experts can be seen in Table 2.

**Table 2.** Experts Demographic Characteristics

No	Gender	Country	Academic Qualification	Professional Experineces	Expet Type
1	Male	USA	Master	6 Years	Counseling Expert
2	Male	Malaysia	Bachelor	7 Years	Counseling Expert
3	Female	Indonesia	PhD	10 Years	Counseling Expert
4	Female	UK	Master	8 Years	Media Expert
5	Female	Australia	Master	7 Years	Media Expert
6	Male	Indonesia	PhD	10 Years	Media Expert

### Data Analysis

The data analysis technique used in this study is content validity analysis using Aiken's V. This analysis aims to measure the level of suitability of each platform component based on expert assessments. The Aiken's V value is calculated from the scores given by the validator to each item in the instrument, then interpreted to determine the level of product validity. The basis for assessing product validity used is 0.8 - 1 (high validation), 0.5 - 0.8 (moderate validation), and 0.2 - 0.4 (poor validation).

The use of validity analysis in the development of technology-based systems is a crucial step to ensure that the developed product meets user needs and is of good quality before widespread implementation. Recent research

confirms that expert validation is a crucial stage in digital platform development, particularly in the fields of mental health and counseling, to ensure the effectiveness, security, and acceptability of the system. (Rahman et al., 2023; Yusuf & Kurniawan, 2021).

## Results

The result of this development research is the creation of a Digital e-Counselor Community Platform to help counselors share experiences. The purpose of this online digital platform was to determine the validity of the media and material in the product. After validation, this media was tested on school counselors to obtain a practicality test. Thus, the Digital e-Counselor Community Platform that was created and developed is suitable for use as a medium for sharing experiences among counselors. This media is packaged in an online web format that is used to provide a forum for counselors to share in an online community. Six validators implemented the validity instrument for this digital platform product: three lecturers who are media experts and three lecturers who are counseling experts. Meanwhile, 10 school counselors administered and assessed the practicality questionnaire for the Digital e-Counselor Community Platform media. The results of each phase in the development of the digital platform material are described in the next section.

The first stage is "define." In this stage, two main activities are carried out: needs assessment and user analysis. The needs assessment activity focuses on identifying counselors' needs: case sharing, supervision, resources, and professional discussions. Furthermore, the needs of users (school counselors) are explored through surveys and interviews. Other aspects examined include the process of identifying gaps or limitations in collaboration spaces and the lack of access to reliable sources for online experiences. Next, a user analysis is conducted by determining the target users, namely school counselors. Users are analyzed based on characteristics such as digital literacy levels, service needs, and platform usage preferences. Task and context analysis includes key user activities such as case discussions, material sharing, peer consultations, and webinar participation. The context of use is also considered so that the platform can be accessed flexibly via mobile and desktop devices. Furthermore, a content and regulatory analysis is conducted to determine the type of relevant content and ensure compliance with professional ethics, particularly regarding client confidentiality and the counselor code of ethics.

The second stage is "Design", at this stage adjustments are made to suit competency standards, basic skills, core abilities, performance indicators, and service objectives. This stage consists of several steps: (1) creating the main website menu, done by creating a menu design that includes: User dashboard, Discussion forum, Resource center (materials, journals, modules), Consultation/supervision and Events/webinars. (2) creating UI/UX (User Interface & Experience) Design by paying attention to: a) Simple, professional, and easy-to-use appearance, b) Responsive (mobile-friendly), and c) Focus on ease of interaction and collaboration. (3) Designing content and features includes core features (Topic-based discussions, Upload & share documents, Comment & feedback system, and Counselor professional profile) and additional features (Badge/activity level and Interaction notification). (4) Designing evaluation instruments consisting of two instruments, namely the Expert validation questionnaire (media & materials) and the User practicality instrument.

The third stage, "Develop," aims to produce a valid and practical Digital e-Counselor Community Platform. This development stage includes validation testing of the material and media for the online community platform by validators. After that, a practicality test is conducted to assess the evaluation results of the online community platform given by school counselors. Table 3 shows the results of the material validation assessment. The questionnaire is summarized into four aspects: material suitability, material presentation, material depth, and word choice.

**Table 3.** Counseling Experts' Validation Results

No	Material Aspect	Expert 1	Expert 2	Expert 3	V	Description
1	Clarity	32	43	43	0.9	High
2	Accuracy	23	36	36	0.9	High
3	Usefulness	15	20	20	0.9	High

Based on the assessment of the questionnaire for the material validation aspect, the average validity score was 0.9. Based on the validity interval category of 0.8 – 1, it can be concluded that the validation score for the material

aspect is stated as "very valid". In addition to the assessment score, the results of this validation are also provided as written suggestions. Validator 1 stated that (1) The material provided must be based on correct and reliable counseling practices, (2) The material is adapted to the needs of BK teachers in schools, (3) Space is provided for sharing and discussing cases in a directed manner. Validator 2 stated that (1) Platform usage rules are created so that interactions remain polite and professional, (2) User guides are provided so that they are easy to understand for new users. Validator 3 stated that (1) The platform must follow the counselor's code of ethics in all its uses, and (2) Confidentiality of counseling data must be properly maintained. Table 4 shows the results of the validation assessment from the counseling aspect. The questionnaire is summarized in three aspects, including the appearance aspect, the interface aspect, and the media usage instructions aspect.

**Table 4.** Media Experts' Validation Results

No	Material Aspect	Expert 1	Expert 2	Expert 3	V	Description
1	Accuracy	17	23	23	0.8	High
2	Usefulness	13	15	15	0.9	High
3	Feasibility	16	20	20	0.9	High
4	Attractiveness	16	19	19	0.9	High

Based on the assessment of the media validation aspect questionnaire, the average validity score is 0.9. Based on the validity interval category of 0.8 – 1, it can be concluded that the validation score on the media aspect is stated as "very valid". In addition to the assessment score, the results of this validation are also given as written suggestions; validator 1 provides suggestions related to 1) The platform must be able to be opened properly on cellphones and laptops, (2) User data security needs to be considered so that information remains safe. Validator 2 provides suggestions about the design being made more attractive so that users feel at home using the platform. Validator 3 provides suggestions (the platform display is made simpler and easier to understand so that all users can use it comfortably).

**Table 5.** Expert Validation Results (User Media)

No	Material Aspect	Expert 1	Expert 2	Expert 3	V	Description
1	Product clarity	46	45	43	0.9	High
2	Product accuracy	33	31	32	0.8	High
3	Product usability	17	17	17	0.8	High

Table 5 shows the results of the practicality test for the e-Counselor Community Platform digital media. This test aims to determine the feasibility of using the e-Counselor Community Platform digital media by school counselors to share experiences with online counseling services. Data were obtained by assessing the feasibility of the e-Counselor Community Platform digital media. The assessment was conducted on 10 school counselors. Three aspects were assessed: product clarity, product accuracy, and product usability. Based on the assessment, it can be concluded that the e-Counselor Community Platform digital media is included in the "very practical" category.

In the fourth step, "Disseminate," the Digital e-Counselor Community Platform media is distributed online to school counselors. Online distribution is achieved by sending a Google Drive link containing the application, user manual, and online module books for the Digital e-Counselor Community Platform. School counselors will inform them about the distribution of the media via a WhatsApp group.

## Discussion

The development of the Digital e-Counselor Community Platform addresses the growing need for technology-enabled collaborative professional practice in counseling. In contemporary counseling, particularly in schools, counselors often work in isolation with limited access to shared resources, peer supervision, and professional dialogue (Boulden & Schimmel, 2022). This study addresses this gap by offering a digital platform designed to facilitate collaboration, knowledge sharing, and ongoing professional development among counselors (Ayanwale et al., 2025; Hidayat, 2024). The integration of digital technology in counseling has been shown to improve accessibility, communication, and flexibility of professional interactions (Yaron et al., 2025). Recent studies highlight that digital environments can strengthen professional collaboration and expand peer support networks among counselors (Huang et al., 2025), although challenges related to digital readiness and literacy remain significant (Kapel Lev-Ari et al., 2020). Furthermore, digital community-based platforms enable more dynamic social learning through the exchange

of real-world practical experiences between counselors (Nakasato et al., 2025). This aligns with the concept of communities of practice, which emphasizes the importance of ongoing interaction in building professional competence profesional (Strømhaug & Halvorsen, 2024). Furthermore, the use of digital platforms also has the potential to increase the efficiency of supervision and collaborative reflection on counseling practice (Yazici-Kabadayi et al., 2024). Therefore, the development of this platform not only addresses technological needs but also strengthens the professional counselor ecosystem, adapting to the demands of the digital era.

The primary objective of this study was to develop a valid and practical platform using the 4-D development model, which includes the stages of defining, designing, developing, and disseminating. The findings indicate that a structured and iterative development process successfully translated user needs into a functional and user-friendly platform. This is consistent with recent research emphasizing that a user-centered and iterative design approach is crucial for developing effective digital systems in counseling and education (Cross et al., 2025; Yazici-Kabadayi et al., 2024). Furthermore, the increasing adoption of digital and AI-powered counseling tools further underscores the importance of usability, adaptability, and continuous evaluation in ensuring system effectiveness (Döring & Mohseni, 2025; Maurya, 2024; Wang et al., 2025). Furthermore, the 4-D approach allows for the systematic integration of user feedback at each stage of development, making the resulting product more contextual and relevant to field needs (Wusqo et al., 2021). This process also contributes to minimizing the gap between the platform's conceptual design and practical implementation (Rabiman et al., 2024). Furthermore, user involvement from the early stages of development increases the technology's acceptability and potential adoption by counselors. These findings reinforce the view that the success of digital innovation in counseling is determined not only by technological sophistication but also by its suitability to user needs. It can be concluded that a systematic and user-oriented development model is key to producing an effective and sustainable platform.

Validity test results showed that the platform achieved high levels of content and media validity, indicating that it was highly appropriate in terms of material relevance, accuracy, usability, and design quality. These findings support previous studies that suggest expert validation is a crucial step in ensuring the quality, credibility, and ethical appropriateness of digital counseling interventions (Ly et al., 2017; Stoll et al., 2020). Furthermore, recent literature emphasizes that ethical considerations, particularly data privacy, confidentiality, and professional standards, are central to the acceptance and sustainability of digital counseling platforms (Jones, 2020). The high validity scores indicate that the platform's design aligns with the professional needs of counselors in the field. The clarity, accuracy, and usability aspects assessed by experts indicate that the platform is not only conceptually feasible but also practically applicable (Bachtiar et al., 2025). This validation also reinforces that the integration of counseling content and digital technology has been carried out appropriately and proportionally. On the other hand, input from validators regarding data ethics and security indicates that digital platform development cannot be separated from the principles of client protection (Bikku et al., 2024). This is crucial given that counseling services directly deal with sensitive information that requires a high level of security. High validity not only reflects the platform's technical quality but also demonstrates adherence to professional standards in counseling practice. Overall, these results confirm that the developed platform has a strong foundation for broader implementation in the context of digital counseling services.

Furthermore, the results of the practicality test indicate that this platform is highly feasible for implementation in real-world counseling settings. These findings align with previous studies showing that digital platforms designed with robust usability and interactive features significantly increase user engagement, satisfaction, and professional collaboration (Liu, 2025). Furthermore, digital interaction has been identified as a crucial factor in fostering communication, trust, and knowledge exchange within professional communities, particularly in technology-mediated environments (Wu et al., 2022). The high level of practicality indicates that this platform is easily accessible and usable by counselors with varying levels of digital literacy (Dewaele et al., 2025). The available features also facilitate professional interactions more efficiently and structured than conventional methods (Serah et al., 2025). Furthermore, the platform's ease of use contributes to increased active participation in discussions and experience sharing among counselors (Lowe et al., 2024). This reinforces the role of digital platforms as collaborative spaces that adapt to the needs of modern counseling practice. On the other hand, the successful implementation of this platform also demonstrates that technology can be an effective mediator in building a sustainable professional community. This platform serves not only as a medium for sharing information but also as a means of developing competencies based on collective experience (Mayer et al., 2025). Therefore, high practicality is an important indicator that this platform has the potential for widespread adoption in digital-based counseling services. These results indicate that the developed platform effectively supports the practical needs of counselors in their professional activities.

Overall, the findings of this study extend the existing literature on digital counseling by shifting the focus from client-centered e-counseling services to counselor-centered professional communities. While previous research

has largely examined the effectiveness of digital counseling in improving client outcomes, this study emphasizes the importance of strengthening the professional ecosystem of counselors through collaborative platforms. Recent studies have also shown that while online counseling is effective, it poses challenges such as maintaining therapeutic relationships and adapting to digital communication, underscoring the need for ongoing professional support berkelanjutan (Callaghan et al., 2025). Therefore, this study contributes to the literature by proposing a platform that not only facilitates service delivery but also enhances professional development and collaboration among counselors.

## Conclusions

This research resulted in a product in the form of a Digital e-Counselor Community Platform as a professional collaboration medium to enhance interaction, knowledge sharing, and counselor competency development. The development of this platform was carried out through a 4-D model that includes the define, design, develop, and disseminate stages, resulting in a systematic product that meets user needs. Based on the validation results carried out by six validators, namely three counseling experts and three media experts, it was found that the developed product was categorized as very valid in both aspects. The average validity value for the material aspect reached 0.9, categorized as very valid, while the media aspect also obtained an average value of 0.9, categorized as very valid. This indicates that the developed platform has met the standards of relevance, accuracy, usability, and good design quality according to the needs of digital counseling practice. Based on the results of the practicality test involving ten school counselors, it was found that the Digital e-Counselor Community platform was included in the very practical category. This was demonstrated through assessments of the aspects of clarity, accuracy, and usability of the product, which received high scores. These findings indicate that the platform is easy to use, relevant to user needs, and able to support counselors' professional activities effectively. Furthermore, platform implementation demonstrated that counselors responded positively to the features provided, particularly in supporting case discussions, resource sharing, and professional collaboration. The platform also enhanced counselors' active participation in the community and strengthened collective experiential learning. Based on these findings, the Digital e-Counselor Community Platform is not only valid and practical, but also has the potential to improve the quality of counseling services by strengthening professional collaboration. This platform can be an innovation in the development of digital-based counseling services that are adaptive to the demands of the technological era. Therefore, further research is recommended to test the effectiveness of this platform on a broader scale and examine its impact on improving counselor competency and counseling service outcomes.

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## Author Contributions

**Deni Iskandar:** conceptualization, formal analysis, investigation, supervision, writing – original draft, writing – review and editing. **Rachmi:** conceptualization, methodology, writing – original draft, writing – review and editing. **Kania Mayastika:** conceptualization, data curation, methodology, writing – original draft, writing – review and editing.

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## Conflicts of Interest

The authors declare that there are no conflicts of interest related to this study. This research was conducted without any commercial, financial, or personal relationships that could influence the results or interpretation of the findings. All authors have approved the final version of the manuscript.

## Ethical Approval

No ethical approval was required for this study.

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