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Digital Literacy Competency Profile of Guidance and Counseling Teacher at State High School in Bandung

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ABSTRACT

Digital literacy is one of the competencies that must be possessed by guidance and counseling (GC) teachers. This study aims to map the distribution of GC teachers' digital literacy competencies. The respondents are 64 guidance and counseling teachers at a state high school in Bandung. This study uses a quantitative approach with descriptive research methods. Data was collected through a survey using a GC teacher digital literacy self-assessment inventory. Collecting data using a questionnaire to reveal the level of digital literacy, which is then analyzed conceptually and empirically from the digital literacy profile of GC teachers, using Technical Competencies for Counselor Education - The Association for Counselor Education and Supervision (ACES). Based on the study results, GC teachers' digital literacy competency profile at public high schools in Bandung City has a good trend, where GC teachers can use digital literacy to support the primary activities of the daily counseling profession. Generally, men have a higher trend in digital literacy competencies than women. In the use of social media, women have a higher tendency than men. The penetration rate of ICT implementation in counseling services is still low

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1. INTRODUCTION

The use of technology in school counseling is an under-researched topic. However, the presence of technology in schools cannot be denied and continues to grow. The GC teacher role varies daily, with time spent on multiple tasks and serving different stakeholder groups. When used with specific intent and purpose, technology can expand the reach and efficiency of school counselors in serving all students and increase access to resources, thereby contributing to overall student achievement. Keeping up with technological developments is not only a matter of efficiency and expediency in program management. However, it is also an advocacy point, which is essential to ensure that stakeholders receive timely and consistent information (e.g., testing deadlines, graduation requirements, scholars submitting information, impacting policy changes on students) through as many channels as possible (Hayden et al., 2018; Sampson et al., 1997). Also, given the vast and constantly evolving technological landscape in education, questions of professional relevance come to the fore. If school counselors do not keep up with technology trends and find ways to integrate online tools into their work, they may be deemed irrelevant.

The Age of Disruption resulted in school counselors' inability to be independent of technology. They concluded his research that counselors could no longer do work without the help of computers (Hilty et al., 2015). However, school facts show many school counselors stutter about technology (Hermawan et al., 2019; Ristekdikti, 2018). This is contrary to the challenges for students as digital native generations who expect the use of technology in learning. So, educators must take advantage of technology. Educators must utilize technology in administrative processes to have free time for self-development. Then, technology-based reports make identifying, recognizing, and fulfilling learning needs and providing student services easier.

Arsad, Osman, & Soh, in their research, show that the results of this study show that there are four components of 21st-century skills, namely: (1) digital-age literacy, (2) inventive thinking, (3) effective communication, and (4) high productivity, and one other component, namely, spiritual values (Arsad et al., 2011). So, the first thing is that digital-age literacy is the main component, indicating the necessity of educators, including Guidance and Counseling teachers, to improve themselves in technological literacy. There is a shift in the old literacy by the new literacy movement to respond to this. According to Aoun (Hermawan et al., 2019), the literacy movement focuses on three primary literacy: digital, technological, and human. Technological literacy aims to understand how machines work and technology applications. Technological literacy is using, managing, assessing, and understanding technology (Rose, 2017). Technological literacy consists of three main components: knowledge, ability and critical thinking, and decision-making. (National Academy of Engineering and National Research Council of The National Academies, 2016) Individuals at the independent computer literacy stage can (1) relate the use of computers and software to internet activities, (2) use computers independently, (3) solve and avoid problems, and (4) adapt to new situations (Robinson, 2008). Four elements of the Guidance and Counseling program must be carried out effectively and efficiently: the foundation, delivery system, management system, and accountability (Yusuf, 2017). These four essential elements provide a broad overview of increasing technological literacy for a guidance and counseling teacher. Guidance and counseling (GC) teachers are required to create programs that suit the needs of students using various assessments that use PC (personal computer)-based processing and analysis.

Furthermore, in making the Guidance and Counseling program, Guidance and Counseling teachers are required to make it effective and efficient and follow the needs of students.

Counselors have technological literacy standards by the Association for Counselor Education and Supervision (ACES). ACES makes 12 competency points for technology that need to be developed by counselors (Intan, et al., 2017) which are as follows: (1) Able to use software to develop web pages, group presentations, letters and reports, (2) able to use audiovisual equipment, such as video recordings, sound recordings, projector equipment and video conferencing equipment, (3) able to use computer-based statistics, (4) able to use computer-based applications for tests/assessments, diagnostics, career decision programs for counselees or students, (5) Able to use email, (6) able to help counselees find various information related to counseling needs via the Internet, such as career information, job opportunities, opportunities for self-development training, financial assistance and or scholarships, healing procedures to information about personal, social, and learning matters (7) participating in various cognitive development activities counseling online, (8) able to use data storage equipment via CD-ROM, (9) knowing and understanding legal and ethical aspects related to counseling services via the Internet, (10) knowing and understanding the advantages and disadvantages of counseling via the Internet, (11) able to use the Internet to look for various opportunities in order to continue education for counseling, and (12) able to evaluate the quality of information on the Internet.

Competence in the use of technology in counseling teacher education, practice, and research is sensitive to issues of multiculturalism, diversity, and contemporary ethical standards of practice (Arredondo & Toporek, 2004). Counseling teachers are familiar with issues related to the digital divide, that is, access to and capacity to use technology applications by diverse and multicultural populations. With these insights, GC teachers model access and inclusivity for diverse populations and people from different socioeconomic backgrounds by ensuring technology access to students challenged by the digital divide. Counseling teachers also recognize the potential of technology to isolate underrepresented populations from effective services further and safeguard the potential for exclusionary practices.

Knowledge of the digital divide issue informs GC teachers' efforts to prepare to incorporate technology applications into practice, research, and education. Furthermore, counseling teachers seek to understand the digital divide issue as it can impact the role of counseling teachers with client populations, peers, and consumers of mental health and wellness services. In contrast to America and Europe, the Asian continent has a reasonably low percentage of 8% in scientific research on digital literacy (Mathar, 2014). In Indonesia, there are not many studies that examine this digital literacy. Previous research has studied more about information literacy, social media literacy, and ICT literacy in particular community groups in several regions in Indonesia. One of the sub-variables of digital literacy is the condition of internet access and the use of social media (Lopez Islas, 2013). This study aims to determine the digital literacy profile of guidance and counseling teachers in the state high school Bandung.

2. METHODS

This study aimed to obtain a complete picture of the GC teacher's digital literacy and then analyze the achievement of these competencies based on the JISC Digital literacy framework (2015). The population in this study were GC teachers at public high schools (SMA) in Bandung. Sampling in this study used a probability sampling technique with a stratified random sampling method, namely a homogeneous random sampling technique, by first

separating the population based on the characteristics needed in the study (Widiyanto, 2013). The sample is 64 GC teachers. Meanwhile, according to Creswell & Creswell (2018), in this technique, the researcher divides the population into several essential characteristics, then uses simple random sampling, research samples from the population divided based on characteristics such as men and women. This technique ensures that the root sample, according to the characteristics required in the study. The steps taken in taking the sample are distributing the questionnaire format through the Google form and then taking a random sample using a lottery.

2.1 Research Instruments

Based on the type of data needed in the study, an instrument in a questionnaire was used. The instrument used in this research is an instrument that is compiled based on the development and formulation of theories regarding the ICT literacy of GC teachers so that the statement items in the instrument are a description of the level of competence of GC teachers in ICT literacy. The questionnaire uses a Guttman scale consisting of yes and no. This scale has an important characteristic. Namely, it is a cumulative scale and measures only one dimension of a multi-dimensional variable, so it has a unidimensional nature. The Guttman scale, also known as the scalogram method or scale analysis, is perfect for convincing researchers about the unity of the dimensions of the attitude or trait being studied, often called universal content or universal attribute. as explained by Herlina U (2017), and Lesmana, O (2020) that to get answers in a clear, firm and consistent manner, two answer choices are used, namely "yes" and "no". A universal attribute has one dimension in the Guttman procedure if it produces a perfect cumulative scale. That is, all responses are arranged. The formulation of the instrument grid to reveal the ICT literacy competencies of GC teachers refers to 11 competency aspects of The Association for Counselor Education and Supervision (ACES). Calculating the coefficient of reproducibility in this study used the SKALO software (Widhiarso, 2011). With 110 items and 64 respondents, this instrument meets the requirements for acceptance of the coefficient of reproducibility, which has a value of > 0.90 . The scalability coefficients measure whether deviations on the reproducibility scale are within tolerable limits. The Guttman scale requires a scalability coefficient value > 0.60 . With the calculation results of $0.876 > 0.60$, the instrument in this study has a good CS, so the deviations in the instrument are still in the reasonable category. This competency standard is a recommendation for the GC Teacher Candidate Education program that the ACES Council approved at the ACES Interest Network event.

2.2 Data analysis

Data verification is an examination step of the data obtained in the context of data collection so that data verification aims to select or select adequate data to be processed. After all the data has been collected, the next step is to analyze the data descriptively by describing or describing the data that has been collected as it is without intending to make conclusions or generalizations (Creswell & Creswell, 2018). The verification results obtained that the data entered by the respondent shows the completeness and method of filling in following the instructions, the amount of data according to the subject, and all of the data meets the requirements to be processed. The data set is processed and then scored according to what is set. The scoring of the instruments in the study was arranged in the form of an ordinal scale. The ordinal scale is a scale that shows the difference in the level of the subject quantitatively. The ordinal scale is based on rankings from the highest to the lowest level or

vice versa. The group of GC teachers with positive and negative digital literacy competencies was determined by converting raw scores into mature scores using the ideal limit. Determination of categorization by adding the scores of 104 statement items in the instrument, then looking for the interval length for each class.

3. RESULTS AND DISCUSSION

3.1 FINDINGS

3.1.1 Productivity Software Use Competence

Based on the survey conducted, it was found that competency data for using digital literacy productivity software was found in GC teachers, illustrated in **Table 1**.

Based on the study results from 64 GC teachers, it was found that as many as 30.43% had advanced digital literacy competencies, and 70% had essential digital literacy competencies. Thus, it is predicted that GC teachers in Bandung can carry out administrative support activities and GC services well. For example, they made correspondence and showed impressions when providing guidance and counseling services.

Table 1. Productivity Software Usage

No	Score	Category	f	M	F	%
1.	$X > 12$	Advanced competence	15	10	3	30%
2.	$6 < X < 12$	Basic competencies	49	5	45	70%
3.	$X < 6$	Basic knowledge	-	-	-	-

3.1.2 Competency in Using Multimedia Hardware

Based on the survey conducted, it was found that the competency data for using multimedia hardware, see **Table 2**.

Table 2. Competency in Using Multimedia Hardware

No	Score	Category	f	M	F	%
1.	$X > 12$	Advanced competence	15	10	3	23.43%
2.	$6 < X < 12$	Basic competencies	42	5	38	65.62%
3.	$X < 6$	Basic knowledge	7	-	7	10.9%

Based on the study results from 64 GC teachers, it was found that 23.43% had advanced digital literacy competencies, 65.62% had essential digital literacy competencies, and 10.9% were in the fundamental knowledge category. Thus, GC teachers in Bandung can use audiovisual equipment such as video recorders, projection equipment, video conferencing equipment, playback units, and other applications available through educational and training experiences. Teaching and learning no longer occur through "traditional" face-to-face interactions. The development of skills around the use of video projection, recording, and conferencing will facilitate the participation of counseling professionals in a variety of supervision, teaching, collaboration, and professional development opportunities.

3.1.3 Competency in Using Multimedia Software

Based on the survey conducted, it was found that the competency data for using multimedia software, see **Table 3**.

Table 3. Competency in Using Multimedia Software

No	Score	Category	F	M	F	%
1.	X> 12	Advanced competence	15	10	3	23.43%
2.	6<X<12	Basic competencies	42	5	38	65.62%
3.	X<6	Basic knowledge	7	-	7	10.9%

Based on the study results from 64 GC teachers, it was found that 23.43% had advanced ICT competencies, 65.62% had essential digital literacy competencies, and 10.9% were in the essential knowledge category. Be able to acquire, use, and develop multimedia software (i.e., PowerPoint presentations, animated graphics, digital audio, digital video) applicable to education, training, and practice. Educational and training experiences during counselor education may include opportunities to develop enhanced professional communication competencies through multimedia software. Technology-savvy counselors can leverage this capacity to expand knowledge and counseling services by integrating appropriate technology software applications.

3.1.4 Data Analysis Competence

Guidance and counseling teachers can use statistical software to organize and analyze data. The practice of counseling is, by nature and design, reflective. Competence with statistical software improves counseling practice by enabling professionals to use data efficiently and effectively to reflect on their practice.

Table 4. Data Analysis Competence

No	Score	Category	F	M	F	%
1.	X> 12	Advanced competence	15	10	3	23.43%
2.	6<X<12	Basic competencies	42	5	38	65.62%
3.	X<6	Basic knowledge	7	-	7	10.9%

Based on **Table 4** the study results from 64 GC teachers, it was found that 23.43% had advanced ICT competencies, 65.62% had essential digital literacy competencies, and 10.9% were in the essential knowledge category.

3.1.5 Competence in Using Digital Literacy for Assessment

Able to use computerized and internet-based testing, diagnostics, and career decision-making programs with clients. There is a wide variety of computer software regarding testing, assessment, and career decision-making. This technology solution is increasingly recognized as invaluable in the professional counseling toolbox.

Table 5. Competence in Using Digital Literacy for Assessment

No	Score	Category	F	M	F	%
1.	X> 12	Advanced competence	5	2	3	7.81%
2.	6<X<12	Basic competencies	15	4	11	23.4%
3.	X<6	Basic knowledge	47	9	38	73.43%

Based on **Table 5** the study results from 64 GC teachers, it was found that 7.81% had advanced ICT competencies, 23.4% had essential digital literacy competencies, and 73.43% were in the essential knowledge category.

3.1.6 Email Usage Competence

Able to use email. Email is the most widely used technological communication tool on the Internet. It is essential to train counselors to develop knowledge of the ethical implications of using email, the security of email messages, and techniques to improve privacy, security, and efficiency when using email.

Table 6. Email Usage Competence

No	Score	Category	f	M	F	%
1.	X> 12	Advanced competence	5	2	3	7.81%
2.	6<X<12	Basic competencies	15	4	11	23.4%
3.	X<6	Basic knowledge	47	9	38	73.43%

Based on **Table 6** the study results from 64 GC teachers, it was found that 7.81% had advanced ICT competencies, 23.4% had essential digital literacy competencies, and 73.43% were in the primary knowledge category.

3.1.7 Competence in using digital literacy for information services

Able to help clients find and evaluate online counseling-related information, including about careers, job opportunities, educational and training opportunities, treatment procedures, and social and personal information. The Internet is revolutionizing the way information is obtained and disseminated. Developing skills in evaluating the quality of Internet information and knowing how information can be obtained online can ensure counseling professionals provide clients with an efficient and effective method of using and evaluating the Internet as a sound source of information.

Table 7. Competence in Using Digital Literacy for Information Services

No	Score	Category	f	M	F	%
1.	X> 12	Advanced competence	24	15	9	37.5%
2.	6<X<12	Basic competencies	28	1	27	43.75%
3.	X<6	Basic knowledge	12	0	12	18.75%

Based on **Table 7** the study results from 64 GC teachers, it was found that 37.5% had advanced digital literacy competencies, 43.75% were essential ICT competencies, and 18.75% were in the fundamental knowledge category.

3.1.8 Competence in Using Digital Literacy for Professional Communities

Able to subscribe, participate, and sign counseling related to service lists or other internet-based professional communication applications. Participating in an Internet-based professional community ensures counseling professionals have a vehicle for sharing and obtaining information and provides a mechanism for maintaining professional connections regardless of time or space constraints.

Table 8. Competence in Using Digital Literacy for Professional Communities

No	Score	Category	f	M	F	%
1.	X> 12	Advanced competence	24	15	9	37.5%
2.	6<X<12	Basic competencies	28	1	27	43.75%
3.	X<6	Basic knowledge	12	0	12	18.75%

Based on **Table 8** the research results from 64 GC teachers, it is known that as many as 7.81% have ICT competence. Advanced level, 23.4% digital literacy competence. Basic knowledge and 73.43% are in the essential knowledge category. The use of digital literacy in developing the competence of GC teachers through the community is essential. This aligns with (Rahman et al., 2021), which reveal that participants' average work engagement is high. It was also found that work experience and educational background did not affect the work engagement of counselors.

3.1.8 ICT Competence For Self-Development

Able to use the Internet to search for, evaluate, and use continuing education, professional development, and supervisory options in counseling. The increasing availability of published continuing education options through Internet channels and easy access for users to self-study programs for professional development that meet licensing or certification standards require competence in using the Internet to search, evaluate eligibility, apply for, and complete requirements. Competence to access technology that supports education and development options strengthens practice and supports lifelong learning as a profession's core value.

Table 9. Competence in Using Digital Literacy for Self-Development

No	Score	Category	f	M	F	%
1.	X> 12	Advanced competence	0	0	0	0%
2.	6<X<12	Basic competencies	10	7	3	15.6%
3.	X<6	Basic knowledge	54	9	45	70.31%

Based on the study results from 64 GC teachers, it was found that 0% had advanced ICT digital literacy competencies, 15% had essential digital literacy competencies, and 70% were in the essential knowledge category. Technology development is currently unstoppable, so professional teachers are inseparable and must follow the development of all-digital technology, including mobile learning. Mobile learning is one of the facilities that a teacher can use to help him carry out counseling services. Some mobile learning that is often used in learning are (1) Teachers can use students' laptops to learn in various ways. (2) Podcasts are

digital audio or video programs (sometimes called vodcasts) that can be accessed through handheld devices (mobile) according to the convenience of the listeners or viewers. (3) Mobile phone (handphone/smartphone) as an integrated tool. Multi-function phones can be used to store and manipulate data; download music; receive and send short messages (SMS) and email; access the Internet; show videos; broadcast video live (live); video conference (video conference); receive and transmit global scanning signals; receive alerts about campus safety; replaces clicker as a class responder tool; sending updates constantly; browsing social networks, via mobile phone; and carry out classwork (finding grades, registering, adding/removing classes, using content management system). Counseling teachers can also use mobile phones to give quizzes to students while providing guidance services, assign students to take photos during field visits, and immediately send the results to the GC teacher. Furthermore, send short messages to students if needed. Based on the explanation above, it can be concluded that a professional GC teacher must be able to master and utilize technology to improve the quality of guidance and counseling services. The use of mobile learning technology in question uses smartphones, laptops, and podcasts to develop a GC teacher into a professional GC teacher.

3.1.9 Computer Use and Maintenance Competence

Able to perform basic computer operations and maintenance tasks. Understanding basic computer operations and maintenance tasks allows counseling professionals to ensure their digital information is relatively safe and secure. These competencies increase productivity by using basic knowledge and problem-solving to solve and prevent common problems.

Table 10. Computer Use and Maintenance Competence

No	Score	Category	f	M	F	%
1.	X> 12	Advanced competence	0	0	0	0%
2.	6<X<12	Basic competencies	21	13	8	32.8%
3.	X<6	Basic knowledge	43	3	40	67.1%

Based on **Table 10** the study results from 64 GC teachers, it was found that 0% had advanced digital literacy competencies, 32.8% had essential digital literacy competencies, and 67.1% were in the essential knowledge category.

3.2 DISCUSSION

3.2.1 Overview of GC Teacher Digital Literacy Competencies

The data collection regarding the digital literacy competence of GC teachers to 64 GC teacher respondents in Bandung shows the following data.

Table 11. General Profile of GC teacher digital literacy competencies at State High School in Bandung

No	Score	Category	f	M	F	%
1.	X> 132	Advanced competence	15	10	3	23.43%
2.	66<X<132	Basic competencies	42	5	38	65,62%
3.	X<66	Basic knowledge	7	-	7	10.9%

Based on **Table 11** the study results from 64 GC teachers, it was found that 23.43% had advanced digital literacy competencies, 65.62% had essential digital literacy competencies, and 10.9% had basic knowledge level digital literacy competencies. Advanced digital literacy competencies are GC teachers who have integrated digital literacy into their programs and daily professional activities and are continually updating digital literacy competencies. Essential digital literacy competencies are GC teachers who use digital literacy on a limited basis in administrative functions and limited use in counseling services. The essential knowledge category is GC teachers who know about digital literacy, only use these competencies, and are limited to administrative activities. This aligns with the results of [Zarirah's research \(2012\)](#) on GC Vocational High School (SMK) teachers throughout East Jakarta, where the competence of understanding the basic concepts of digital literacy for GC teachers is generally in the medium category (64.9%). Based on gender, men tend to master and use digital literacy competencies more than women. In advanced competence, 66% are occupied by men and 34% by women. It is appropriate that age, gender, and background are some factors that influence the use of digital literacy, as described by [\(Afshari et al., 2009\)](#). Research results say that older women are less open to innovations. This is influenced because older women have characteristics that are still clinging to their subjective self, are realistic, believe in their words, do not like the diversity of fashion, and are less willing to take opportunities that are not important.

Gender is not only understood as a social category and an analytical tool to see women as men in society. In an abstract sense, gender is understood with the meaning of "ideology" to explain the social reality that places women and men in different roles and positions. In real life, gender "ideology" influences the behavior and choices of women and men that determine their socioeconomic relations in society (including in the family and the world of work). Women socialize themselves as a group with subordinate or self-subordinating characteristics (stereotypes) [\(Goswami & Dutta, 2016\)](#). Gender "ideology" influences the process of identifying public works according to the more feminine nature of women and their involvement in following the standards or values imposed on women as the subordinate sex. In the world of work, women are primarily involved in jobs close to "female instincts," for example, people who work in the domestic area, while men are positioned more in the public area. The use of digital devices is also still affected by the issue of gender bias. Research in the United States states that men still dominate the number of internet users in the country. Men are more interested in accessing the Internet than women. If there are women who access the Internet, their needs are limited to family, friendship, and social activities [\(Cai et al., 2017\)](#).

Meanwhile, men use the Internet for more complex activities, such as work, recreation, and business information [\(Fallows, 2009\)](#). This figure is directly proportional to the facts of internet users in Indonesia. Telematics indicator data through APJII 2021 data states that internet access in Indonesia is still dominated by men (65.86%), while the rest are women (34.14%). The data shows strong evidence that the Internet is still considered a male commodity and tends to be masculine. Thus, it can be concluded that in the reality of technology, women's work tends to be far from the area of technology or only in a limited capacity.

From the data obtained from the Ministry of Women's Empowerment, technology is still very close to men's identity, while women are often only objects. At the same time, the quantity of women is almost half of the Indonesian population, which is a potential if appropriately empowered. Women face various obstacles in accessing information

technology, including low skill and education levels, language problems, time constraints, internet access costs, limited location of connection facilities, cultural and social norms, and inadequate management and computer skills (Terry & Gomez, 2011). Of course, it becomes an exciting challenge to see how women's limitations are bridged by utilizing internet technology.

Five key elements influence teachers' incorporation of computer technology within the classroom. These factors encompassed teachers' confidence in using computers, their years of teaching experience, the level of support they received for technology integration, their teaching methods, and the extent of their training in integrating computer technology. The purpose was to determine if these factors contribute to teachers' increased utilization of computer technology. The findings of this research indicated that there is potential for favorable improvements in the educational experience when teachers are empowered to incorporate computer technology (Pourhosein, 2013).

Supervising teachers should better understand that the current generation they are facing is the Z generation and Alpha generation, who are very familiar with the digital world, who are very happy to access information from digital media, who know the world through social media and the Internet (Sumardianti & AW, 2018). By understanding which generation they are dealing with, they must also be able to adjust service processes according to the characteristics of that generation. The Ministry of Education and Culture demands that teachers continuously improve student character education (Ristianti, 2017). Character education is a conscious effort to educate students so that the knowledge they get is balanced with good religious knowledge so that students are always aware of doing good and act according to their potential. Therefore, teachers must be able to incorporate character values into students in utilizing technology and digital media so that when they use technology and digital media, they always pay attention to good character (Fitriyani, 2018). In the end, The rapid integration of information technology into counseling services, while driven by the urgent need imposed by the COVID-19 pandemic, has revealed a critical disparity—namely, the lack of robust alignment with deep-rooted pedagogical philosophies and concepts. As digital platforms become increasingly prevalent in delivering therapeutic interventions, bridging the gap between technological implementation and the intricate theoretical underpinnings of effective counseling is imperative (Julius et al., 2020). This incongruity highlights the necessity for a holistic approach that harmonizes technological advancements with the profound wisdom garnered from established pedagogical principles, ultimately enhancing the quality and efficacy of virtual therapeutic interactions during these unprecedented times. The results of the study show that the use of technology in counseling must be oriented towards improving service quality by paying attention to the aspects: 1) Cultural and communication processes that will occur through technological devices, 2) Provisions and procedures for using technology-based services are to be agreed upon, 3) Readiness of technical knowledge from counselors as a service manager, 4) User experience in the technology application used (Fahriza et al., 2023).

3.3 Research Limitations

In this research, no respondents could not use digital literacy due to online surveys. More respondents may have low digital literacy competencies at level Three (3). Referring to the theory of the Personal-Capability Maturity Model (P-CMM), ICT Literacy (Telematika Indonesia, 2004), an individual can be categorized into five levels.

1. Zero (0). an individual does not know or care about the importance of information and technology in everyday life.
2. One (1). an individual has had one or two experiences where information is essential for the desired achievement and problem-solving and has involved information technology to search for it.
3. Two (2). an individual has repeatedly used technology to assist daily activities and has had a pattern of repetition.
4. Three (3). An individual already has a standard of mastery and understanding of the information and technology he needs and consistently uses these standards as a reference for implementing daily activities.
5. Four (4). an individual has improved significantly (can be stated quantitatively) his daily life activities performance through information and technology.
6. Five (5). An individual has considered information and technology an inseparable part of daily activities and directly or indirectly has colored his behavior and culture of life (part of an information society or human being with an information culture).

4. CONCLUSION

Mastery of information technology in guidance and counseling services at State High School In Bandung is mainly in the medium category. The development of technology implementation in GC services occurs because of the urgency of implementing learning from home (BDR). The high use of information technology in counseling services has not been fully supported by deep pedagogical philosophy and concepts and is just an effort needed due to the COVID-19 pandemic. The digital literacy competency profile of GC teachers in Bandung has a good trend, where GC teachers can use digital literacy to support the primary activities of the daily counseling profession. Generally, men have a higher trend in digital literacy competencies than women. In the use of social media, women have a higher tendency than men. The penetration rate of digital literacy implementation in counseling services is still low. As it continues to evolve in educational settings, technology has great potential to assist school counselors in their work for and with their stakeholders. Technology skills will likely position future school counselors as more competitive candidates in the job market. However, many school counselors do not leverage technology and thus may not have the reach or impact they can, which has significant implications for serving all students and other stakeholders. There is a need for research that reveals more in-depth use of information technology, especially in the philosophical setting and the suitability of pedagogical concepts in integrating various guidance and counseling services.

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