

# Digital Literacy and Innovation for Guidance and Counseling Program

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**Abstract**—School counselor has a great opportunity to innovate, but they lack interest in reading. Digital literacy is the most important competence to make them able to innovate. This study aims to describe the profile of digital literacy and it's relations to develop innovative guidance programs. A survey was used to be a research method. The focus of the study is school counselor habits in using the internet related to digital literacy activities, as well as the habits in developing programs. The research was conducted for 45 millennial school counselor, with an age range of 22-35 years old, and a minimum working period of 1 year as a sample. Result found that the overall sample is digital user, and level of digital literacy for majority respondent is communication and collaboration, and several respondents are a content creator. If the school counselor is unusual to create content from various information on the internet, it is impossible to be able to create innovative guidance and counseling program, roven by almost all of the respondents downloading the program from the internet. This is a big challenge of the ease of technology nowadays.

**Keywords**— *digital literacy, millennial, innovative program*

## I. INTRODUCTION

Innovation became a necessity and a challenge for guidance and counseling. The era of disruption demanding each profession must be innovating because changes happen very quickly. School counselors in the digital era challenged to work hard and have a strong commitment to making creativity. Innovations that have aimed to let the impact of counseling services really meaningful for the counselee. School counselors in the 21st century are expected to innovate reciprocal with school improvement, both in helping students achievement, lead the students to overcome obstacles in achieving good results and creating a positive school climate [1].

Today, guidance and counseling have great opportunities in innovating, with many generations of millennials who became the school counselor. Millennial is born between Year 1980 until 2001 [2]. Stafford and Griffis state that the millennial generation is the population who were born between the years 1980 until 2000. Factually, a millennial teacher is a fresh graduate or who was around 22-35 years old [3].

Millennial is known as dynamic groups to changes, quick to adapt, fast receive [4]. Also, the skills of technology owned by them will help them to understand any needs of learners as a digital native, who can be

communicated to the Chairman of the school to minimize the gap between generations, in the form of innovative guidance programs.

Millenials ingeniously in technology ideally can solve the problem in the development of guidance program services, especially the limitations of time and space. Farozin et.al's research results showed that among 40 problems in program development, infrastructure issues, as well as guidance and service equivalence counseling is the most frequent problem is felt, with a percentage above 50% [5]. Contradicting to the characteristics of the current digital age that can eliminate the boundaries of space and time.

Morover, the presence of millenials school counselor ideally can produce a diversity of service content interesting and relevant guidance. The relevance of the development of the media information in the guidance and counseling with a technology developed at this time became important, in connection with the lifestyle of a rapidly changing learners [6]. Social media habits among teachers and students should be an opportunity for understanding student lifestyle and the need for guidance services.

As the millennial generation, they has a great opportunity to innovate, but still, some situations should be anticipated. The results of the study conducted by the Boston Consulting Group (BCG) with University of Berkley Year 2011, indicating that the millennial doctrines millennial required to have an account on social media as a tool of communication and information center, and lead to decreased interest in reading.

Eventually, the most important competence that Millenials school counselor should have to face its situation, is digital literacy. Digital literacy refers to two things, expertise in using technology, and a person's ability in processing the information. Construct of digital literacy competencies in global are 1) Information and data literacy, 2) Communication and collaboration, 3) Digital content creation, 4) Safety and 5) Problem Solving [7].

According to Ahmad in context of guidance services, digital literacy shown by combining and integrating technology into the practice of guidance and counseling service [8]. It is accompanied by a commitment to quality in the concept and practice of TPACK (Technology, Paedagogy, Content, and Knowledge). Digital literacy competence of school counselors not only helps to find information that can be shared with students, moreover, but they will also be habitual to finding new ideas that will be created more attractive and high quality guidance program services.

Therefore, it can be assumed that digital literacy and innovation in guidance programs services are interrelated. Good digital literacy develops from the habits of school counselor in using technology and social media. In this study, we explore the habits of school counselor, especially the millennial generation in using the internet and social media, and those implications in developing guidance service programs.

**II. METHODS**

This study was developed based on a survey method for millennial school counselor, with an age range of 22-35 years old, and a minimum working period of 1 year. The survey method was chosen to describe the real conditions of millennial school counselor habits in using the internet related to digital literacy activities, as well as the habits in program development.

The aspects and focus of the survey are presented in Table 1 below.

Table 1. Survey Focus

Aspect	Indicator
Internet use habit	1.1 Exploring current issue 1.2 Share an information
Data and information process	2.1 Filtering 2.2 Connect and relate to students behavior 2.3 Creating guidance content
Developing program	3.1 Develop relatable guidance program 3.2 Evaluate and innovate guidance program

The survey was conducted by using online instruments distributed via Google forms. Total sampling is 45 school counselor, who came from West Java, South Sumatra, and Central Java. The research data is the amount of response in each item's question. Data analyzed using the percentage formula bellow.

$$P = (\sum n/Nm) \times 100\%$$

Description :

- P : Total percentage
- N : Total respondent
- m : Total item
- $\sum n$  : Total number of respons

**III. RESULT AND DISCUSSION**

*Result*

The findings in the first aspect show that in general, respondents are wanted to using social media and the internet as a tool to find the latest information. Besides they also share the latest information with students through social media. The results are presented in Table 2.

Table 2 Result findings for 1st aspect

Aspect	Indicator	Item	Respons		
			Always (%)	Rarely (%)	Never (%)
Internet use habit	Exploring current issue	Look for student popular topics	82.6	13	4.4
		Look for current issue ,to make guidance content	71.1	28.9	-
	Share an information	Share the trending topics	34.8	43.5	21.7
		Share any interesting info	39.1	60.9	-

Result for indicator 1.1 is 82.6% of respondents always use social media to look for student popular topics, 13% are rare, and 4.3% never use. Other findings show that 71.1% of respondents are always exploring the latest information through the internet to be used as guidance content in the classroom, and the rest only occasionally do that.

In indicator 1.2 the majority of respondents occasionally shared information that became a trending topic (43.5%), but the percentage of respondents who always automatically shared was not so far away, which is 34.8%. Also, the majority of respondents shared interesting articles/videos with students through social media. Based on the data it was concluded that respondents were wanted to sharing information through social media.

In processing information, indicator 1.2 needs to be emphasized 56.5% of respondents have a difficulty to connect and relate to student behavior and lifestyle. It is contrary to the habits of respondents in indicator 1.1. Survey findings for the second aspect shown in Table 3.

Table 3. Survey findings for the second aspect

Aspect	Indicator	Item	Respon		
			Always (%)	Rarely (%)	Never (%)
Data and Information Process	Filtering	Rate information before sharing	82.6	13	4.4
		Easy to knowing student common think	41.3	56.5	2.2
	Connect and relate to students behavior	Difficult to connect and relate to student behavior and lifestyle	3.3	55.7	41
		Assesing information before make a guidance content	58.5	32.1	9.4
	Creating guidance content	Make online video / article as guidance content	39.1	60.9	

Processing information is at the core of digital literacy. Based on the data obtained, half of the respondents have not been able to use social media habits as a basis for understanding student conditions, which can be a predictor of irrelevant programs that are developed against student needs. 60.9% of respondents had created guidance content based on online videos and articles, and 39.1% of respondents always used this method. It means they used digital resources in guidance and counseling services. But it needs a repeated study about how relevant the videos and articles are to be a service content.

Further findings regarding the development of the program carried out. In the focus of this study, it was found that 63% of respondents occasionally made changes to the program 6.5% of respondents had never, and 32.6% always made changes to the program. The most miserable finding is that 49.1% of respondents always download guidance and counseling programs via the internet, 49.1% also do it occasionally, only 3.8% never do it. The detailed survey results are presented in table 4.

Table 4. Result Findings for thrid aspect

Aspect	Indicator	Item	Respon		
			Always (%)	Rarely (%)	Never (%)
Developing Program	Develop relatable guidance program services	Easy to make topics from a popular issue	13	82.6	4.4
		Difficult to develop media because of limited facilities	49.3	6.6	44.1
	Evaluate and innovate guidance program	Evaluate program frequently	41.3	56.5	2.2
		Downloading guidance program	49.1	49.1	3.8

Overall, millenials school counselor who become respondents are digital users. They always use digital technology as a source of information and media to share with students. They can manage information well but are complicated with understanding the contextual information that will make them connected to the conditions, behavior, and lifestyle of students. Based on concept of digital literacy competencies, all responses indicate they are in the category of communication and collaboration, and several respondents are school counselor who can create content.

If the school counselor is unusual to create content from various information on the internet, it is impossible to be able to create innovative programs. Proven by almost 90% of respondents downloading the program from the internet. This is a formidable challenge of the ease of technology nowadays.

*Discussion*

The importance of digital literacy as a factor in innovation has been illustrated through the results of research. Digital literacy that appears by respondents is felt not to be optimal, especially in developing information content, so that in developing programs it is also hampered in the development of topics and media guidance.

Based on the survey results, digital literacy is still limited to sorting out information and relaying it back, not yet developing into an idea or new product. Digital literacy is the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyze and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process [9].

The survey also found that more than 50% of respondents had difficulty relating to the habits, lifestyles, and needs of students.

Habit. It was in contrast to the frequency of up to date information through social media that is also used by students. The gap between the ability to find information by understanding information can be overcome by increasing discussing current issues with students so that the counselor teacher can think more contextually from the information he gets, then creates it in a current and innovative guidance curriculum.

The most unfortunate impact of the lack of maximum digital literacy is the habit of downloading programs. The survey results showed that almost the respondents used to download guidance programs on the internet. On the other hand, this situation cannot be easily avoided by accessing the sources of file providers, such as Facebook and Facebook.

One of the characteristics of millennials as digital generation is that they want to be fast and instant, making them prefer browsing information, without wanting to linger on reading the information in full [10]. In line with the situation Unesco (2017) emphasizes the skills that must be possessed after being able to access information among others using communication technology, interpreting, making opinions about the information found, and being able to create information.

The availability of internet equipment and networks can be an opportunity to develop guidance and counseling services that can be done without space and time restrictions. Sink, CA, explains the development of technology that easily encourages school counselors to stay focused on 1) Developing and updating the skills needed to serve all Students 2) Exploring innovations in the theory and practice of education and counseling, and 3) Implementing well-designing programs comprehensively [11].

Belshaw [12] cites that important elements needed to increase digital literacy are:

1. Cultural, cultural elements in digital literacy are not only about understanding the various contexts of users of the digital world but also how to be able to see phenomena in the world from different sides of the culture that are different from each other.
2. Cognitive means about how to 'expand the mind' is a psychological phenomenon in which an individual performs literacy objectively
3. Constructive, relating to creating something new, including using and mixing back content from other sources to create something new original work.
4. Communicative, all forms of literacy must involve several forms of communication such as writing and reading.
5. Confident, self-confidence arises in line with the knowledge a person has, the more knowledge he has, the sense of self-confidence will increase.
6. Creative. The creative element of digital literacy is about doing new things and new ways, about how to use technology to do tasks and achieve things that were previously unreachable to ordinary people.
7. Critical, critical thinking skills are needed to understand every available information.
8. Civic. A sense of responsibility for events that occur in the community indeed needs to be grown in the use of digital literacy. Belshaw explained that

civic elements involve the ability to practice literacy resulting from technology and tools to support community development [12].

These elements are the basis for developing digital literacy capabilities. It is hoped that implementing these steps will increase the digital literacy of school counselors, and help them innovate with a guidance program, especially in understanding the context and can have cognitive and communicative abilities.

The critical thinking aspect of digital literacy is very important, because of the diversity of information on the internet, and the ease of information content created by internet users [13]. This aspect will distinguish someone who tends to be a consumer of information, a user, or a content creator.

Digital literacy as the development of thinking, mean awareness of thinking of tasks assigned to someone. Critical thinking should be an important part of developing the information literacy stage at the level of critically evaluating information [14]. As stated by Martin what aspects of critical thinking become important in developing digital literacy potential, that critical thinking and critical evaluation of what is found on the internet, as well as being able to apply in life [9].

Another important element is creativity in managing technology products. Copy, transform and combine (CTC) are the basic principles in creativity carried out by the counselor. Digital literacy helps counselors to transform existing technology products into current and relevant strategies..

Currently, innovation in the digital era is known as Combinatorial innovation. Ciriello et al. describe that combinatorial innovation is new digital solutions are often created by combining existing modules with embedded digital capabilities or blending different modules with the same standard. This opens up opportunities for counselor teachers to innovate guidance service strategies [15].

Research showed that 49.3% of respondents always had a difficulty in developing media causes by limited facilities. If digital literacy is maximized, these difficulties will not arise. Guidance and counseling program innovations based on digital literacy focus on the relevance and efficiency of services. According to Hayden et. al within the school guidance curriculum, school counselors reported using technology to increase students 'depth of understanding of the material, increase students' exposure to the material, and communicate with parents [16].

Today, the counsellor is faced with a counselee that generally are generation Z. Generation Z has never known a world without social media, smart phones, and the Internet. They primarily rely on the Internet and videos (i.e., YouTube) to provide information rather than textbooks or manuals [17]. Consequently, they are accustomed to fast changing technology and learn experientially [18].

Hicks & Waltz mentioning that clients from Generation Z and Millennials have experiences and abilities that differ from their predecessors [3]. These generations relate best to counselors who understand these differences and incorporate them into counseling sessions. The same can be said for Traditionalists, Boomers, as well as for those from Generation X. Because digital technologies are so embedded in young people's lives already, perhaps schools should simply allow students to engage with technology and

achieve competence in its use independently of the classroom.

Kavanagh & O'Rourke said school counsellors may sometimes feel that their students know more about ICTs than they do themselves, and we should be open to learning from our students where this is indeed the case [19]. But the reality, now more than ever, is that young people need guidance in the areas of treating others with respect, avoiding bullying, being safe and critically evaluating information found online. This is not to view digital devices and communication methods negatively – the possibilities are truly exciting and full of promise, opening up new worlds of human activity and areas of scholarship

Therefore, school counselors must be able to do digital literacy in order to meet the needs of students as Z-generation. They should seek to develop their own digital literacy skills, and to familiarize themselves with taking a leading role in researching and implementing social media policies for their guidance services.

Social media is an example of an opportunity to be combined as a service strategy, without requiring huge facilities and school funding. Almost all teachers and students use social media, even schools have official social media accounts. Tillman *et.al* state that use of social media is also raising new opportunities and challenges in clinical mental health practice [20].

Facebook as the most popular social media and has many features provides opportunities to develop guidance service strategies. It can become a source of vital information in understanding the client's behavior, as well as a more intimate depiction of what the client is experiencing, through their feeds, words, emojis, and images uploaded by students. In the group counseling process, facebook can be used as a reminder tool for completing journals, do exercises, and evaluate group work, whether in the form of text, audio, or video. The most popular application is cybercounseling, that scheduled chat on Facebook

Other social media like Instagram, Twitter and YouTube can be used to manage service content. The media provides a variety of information, content, and uploads that can be discussed with students. A school counselor also can provide scheduled posts or use live features on Instagram.

Suryahadikusumah & Ferdiansyah [6] found factors that any factors contribute to the success of the use of social media in guidance program are: 1) content information must be engaged with lifestyle contextual, and adolescent's need, 2) share information in a simple way, 3) use trusted source for information, 4) requires daily language for the content, and 5) add some picture that embed with topic. They need to be trained by school counselors regularly and consistently

Based on the results and discussion, there are recommendations that digital literacy and innovation can be maximized.

1. Education about the benefits of every up-to-date digital application is necessary. The cause of the weak digital literacy is the lack of knowledge about the functions, features, and benefits of each digital product. Limited education and training cause many school counselors do not understand how to incorporate technology effectively. Schools and professional organizations can hold massive and intensive workshops.
2. Equalizing perceptions about innovating. Perception about innovation is still limited by creating media,

whereas with digital applications innovation can be in the form of collaboration and exploration of various features that can be used as a guide service strategy.

3. Use design thinking. Design thinking can stimulate sensitivity to problems, and find relevant alternative solutions, in this case, the development of programs and media services. Model design thinking has been proven successful to solve complex problems about systems, policies, and product development. Counselor teacher's knowledge about various features and opportunities of digital media can be described in design thinking, then compared with the context of the situation of students, so that various development ideas that will be relevant and realistic will emerge.

These activity can help us to innovate in the digital age and make the profession of counseling guidance more dynamic.

#### IV. CONCLUSION

Digital literacy needs to be maximized to teachers counselors can be more innovative in the digital age. the majority of respondents are digital users, and their levels of digital are communication and collaboration, several respondents are a content creator. If the school counselor is unusual to create guidance and counseling content program, from various information on the internet, it is impossible to be able to create innovative programs. Critical thinking and creativity can improve innovation through digital literacy. Combinatorial innovation is a form of innovation that emerges from digital literacy. Developmental attempt for digital literacy and innovation skill i.e. workshop on the use of ICT, equalization of perceptions about the features of the latest digital applications, and the use of design thinking become a medium for mapping literacy outcome

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