



Digital Counselling for Indonesian Millennials: Unlocking Learning Potential

Eni Fariyatul Fahyuni¹(✉), Cindy Taurusta¹, and Retno Tri Hariastuti²

¹ Universitas Muhammadiyah Sidoarjo, Sidoarjo, Indonesia
{eni.fariyatul,cindytaurusta}@umsida.ac.id

² Universitas Negeri Surabaya, Sidoarjo, Indonesia
retnotri@unesa.ac.id

Abstract. This study aims to identify that students urgently need online counselling guidance for Indonesian millennial students. Digital counselling facilitates student consultation services for millennial era. This methods research is quantitative and qualitative to identify variables influencing online counselling services in the millennial era. The findings of this study emphasize three factors; students recognize their learning potential, develop effective learning strategies, and develop their potential. For this reason, guidance and counselling services must be able to prepare students independently to overcome their problems with develop their potential and skills.

Keywords: digital counselling · learning potential · learning strategies

1 Introduction

The digital technology requires schools to improve by building extensive networks to enhance student competences [1] through learning with the eLearning system [2]. Preparing student competencies is closely related to students understanding their learning potential. A breakthrough in online learning in South African higher education institutions sees the need to accept large numbers of nearby campuses. This program ensures student productivity by exploring heutagogical principles in online programs. During the COVID-19 pandemic, many lacks of counselling guidance could not be applied optimally. Given the importance of counselling guidance, educators must innovate to introduce and understand potential students [3]. Online guidance and counselling services are android applications that provide flexibility and ease of access [4]. The current counselling guidance should synergize with the development of information technology to be easily accessed and utilized by users [5].

The COVID-19 pandemic in Indonesia has started to diminish, but that doesn't mean that the spread of the virus is to be taken lightly. The COVID-19 pandemic has made online learning borderless [6]. Distance learning affects female compared to male students [7]. Android is a means of facilitating communication for its users [8]. The counsellor's role is the most critical part in instilling the principle of lifelong learning,

guiding students to learn to live independently, actualize their potential, and learn to live with the community [9].

The innovation of online counselling guidance services in schools supports the Sidoarjo district as a “Smart City” by integrating technology and counselling without borders. Sidoarjo has succeeded in achieving a superior technology-friendly city by adapting to the development of digital technology [10]. Counselling guidance packaged through website-based cybercounselling have proven effective in increasing students’ self-regulated learning. Digital media is a tool for students to integrate their knowledge on Islamic values to achieve a balance in their lives [11]. The results of the study show that the use of DL-Droid makes learning activities dynamic in the current era of technological advances [12].

Regency, which still uses conventional counselling services. For this reason, digital-based guidance service innovation facilitates counselling services without space and time limits [13, 14], with access to the Internet of Things (IoT) [15]. The impact of the COVID-19 pandemic on students experiencing stress due to difficulties in access cannot learn face-to-face [16]. Because innovation is needed to answer the various problems that arise [17]. The impact of pandemi has an impact on the adaptation difficulties of students who can usually interact with their friends into individual learning at home [7].

This research is urgent to analyze ideal counselling services in the millennial era that are suitable and can be used by students in the Sidoarjo district. Showed that many students expect the school to provide online counselling guidance that are easy to access, comfortable, and secure’s privacy. Furthermore, the counselling guidance program can help students know their talents and interests and tell them to get into their favourite universities. Several online counselling service applications have been developed, but most of them only focus on handling student problems in career, personal, social and family orientation. This study analyzes the design of an application platform facilitating online guidance and counseling services in Sidoarjo district.

1.1 The Rationale of the Current Study

Entering the current innovation in flexible digital counselling services without access limits [14], an essential part of the student learning environment [18, 19], practising problem- solving independently [20], in a more adaptive and accountable manner [21]. by prioritizing confidential client data security [22] maintaining the privacy and comfort of student data [23]. Counselling guidance contains a variety of tests for students to recognize their potential and develop learning strategies and future careers [24]. For this reason, counsellors are needed who can master guidance and counselling services so that can increase students’ self-confidence to develop more optimally [25]; advances in technology can lead students to independent reflection skills, metacognition, and non-linear learning.

1.2 Objective

This research identifies the implementation of digital counselling guidance in the millennial era. Internet-based guidance and counselling services are inseparable from the learning process globally [26]. Online counselling guidance services provide easy access

without space and time limits. However, in reality, online counselling guidance services implemented in schools are not optimal due to school counsellors' limited knowledge and competence [27]. Online counselling guidance is significant for increasing the recognition of student learning potential. Optimizing digital-based online advice and counselling services facilitates students in recognizing their learning potential through various guidance and counselling test tools such as;

1) colour blind test, 2) learning style test, and 3) multiple intelligence test. The benefit of students recognizing their learning potential [28]. Guidance and counselling counsellors must have the knowledge and skills to understand students' learning potential through various guidance and counselling tests so that the learning process runs optimally [29]. The millennial era counselling guidance needs adaptation to digital [5] facilitating access to information without boundaries more broadly [30, 14].

2 Methodology

This research is a mixed method with a quantitative approach for the benefit of placing the learning potential of junior and senior high school students in the Sidoarjo Regency. The results of the factor analysis test and qualitative analysis refer to in-depth interviews and reality observations and are supported by documentation to find problems and solutions for ideal guidance and counselling services in the millennial era characterized by the use of information sources. And digital-based technology. The prototype design stage for online counselling guidance service applications begins with conducting focus group discussions involving school supervisors, school principals, subject teachers, and guidance and counselling counsellors to identify various problems and solutions needed according to current developments [31].

2.1 Participants

The subjects in this study involved 1775 nine schools in Sidoarjo Regency. Considerations for determining schools as samples of this study include: 1) the openness of educational supervisors in carrying out collaboration and changing mindsets to the needs of students in the millennial era, 2) the openness of the principal's mindset opens insights in developing online counselling guidance service applications according to the needs of the millennial era, 3) the openness of counsellors' guidance and counselling and subject teachers as an effort to improve student achievement through the introduction and understanding of the learning potential of their students, and 4) limited facilities and counsellor understanding of digital-based online guidance and counselling services, and d) school location supports school internet facilities and students' ability, most of whom already have smartphones that support the implementation of online guidance and counselling services supported by the teacher and student resources digital literacy..

2.2 Measurement

The survey results show that the problems students face individually, socially, in careers and in learning are proven to affect student achievement [32]. The position of students

in schools is not only as objects of education who are given various knowledge daily, but students also have problems that arise from themselves, their families and friends around them. For this reason, counsellors must be able to help students recognize their learning problems to develop effective learning strategies according to their characteristics [29]. The survey results were measured online by involving ten schools for junior and senior high school students throughout the Sidoarjo district. Questionnaires were distributed in links through social media such as Twitter, Facebook, and email lists. Questions and or statements are presented using simple sentences that students easily understand.

2.3 Statistic Analysis

The analysis technique of this research uses the SPSS program to identify the dominant variables that influence the implementation of guidance and counselling services for junior and senior high school students throughout Sidoarjo. Analysis using SPSS to find valid dominant variables in the factor analysis studied. The results of the matrix on the exploratory factor analysis show that there is a strong and significant relationship between each variable. The dominant factor in increasing the recognition of learning potential and students' abilities to develop effective learning strategies for junior and senior high school students in Sidoarjo is implementing online counselling services that suit the needs of the millennial era.

2.4 Instruments

The instrument used refers to and followed guidance and counselling services in schools. A total of 1775 students spread across nine junior and senior high schools throughout Sidoarjo Regency, among others; 1) individual counselling, 2) social problem counselling, 3) academic counselling, 4) family problem counselling, 5) career and further study counselling, 6) study counselling, 7) learning potential recognition counselling, 8) learning strategy development counselling.

The findings generated in the exploratory factor analysis on the perception of self-efficacy and achievement motivation of students in understanding self-potential, recognizing talents and interests of students, understanding learning strategies, readiness to choose studies and career paths can be analyzed deeply by conducting qualitative data by digging in-depth information through interviews and observations related to respondents' behaviour of self-efficacy and achievement motivation in preparing themselves for their subsequent studies and careers.

3 Result and Discussion

3.1 Results

The findings from the study show that counsellors in schools are essentially ready to carry out online counselling guidance. However, the implementation is not optimal due to the unpreparedness of human resources, especially the counsellors with digital-based counselling guidance services. Therefore, various forms of training and supporting application facilities are needed for guidance and counselling counsellors to support the needs

of teachers and students [5]. Cybercounseling applied in developed countries has many advantages supported by electronic media by prioritizing client confidentiality services. Online remote innovation must consider design, instruction, and delivery techniques that allow easy access and seamless guidance and counselling services. Online guidance and counselling service innovations must prioritize multisensory holistically for each individual with various potentials and limitations [33]. For this reason, an android-based online guidance and counselling service is needed to facilitate the needs of all students.

3.2 Discussion

The development of science demands significant changes in the world of education, one of which is online counselling guidance services which must adapt to a digital basis. The study results show that students who solve their problems tend to adapt more quickly to their learning environment [34]. Students' self-confidence plays an essential role in developing their various potentials to their best abilities. The following results of the analysis of the SPSS program show that there are eight indicator items for online counselling programs that are appropriate and ideal for use in the millennial era. The KMO table and Bartlett's Test, the Bartlett's Test of Sphericity (Sig.) is $0.001 < 0.05$. The results of guidance and counselling tests on the introduction of students' learning potential show that this test is helpful for students being able to develop and design effective learning strategies according to their characteristics. For this reason, counsellors need to introduce and understand the differences in the potential of their students based on the development of information technology.

The Result of Rotated Factor Matrix show that skill strengthening 0,999, family problem 0,573, process learning strategy 0,492, talent and interest 0,338, peer counselling and social community 0,587, personal problem counselling 0,506, and academic counselling 0,422. The result of rotated factor matrix show that every student has a different type of learning style. There are three kinds of learning styles, namely visual, auditory and kinesthetic learning styles [35]. By referring to the differences in student learning styles from the results of the guidance and counselling tests, guidance and counselling teachers and counsellors must be able to accommodate the needs of each students. Therefore, it is necessary to apply a learning style test to understand each student's learning style [36]. The results showed increased student achievement in Mathematics subjects with the teacher's teaching pattern using the multiple intelligence approach or the students' multiple intelligences [37].

These findings demonstrate the importance of recognizing student learning potential [29]. Guidance and counselling tests help students understand and realize their potential for future career preparation [38]. Guidance and counselling tests help students understand and realize their potential for future career preparation [38]. The introduction of student learning potential is closely related to the ability of students to compile, choose and design their abilities to provide maximum benefit for students [39].

3.3 Limitations and Suggestions

The findings above, this research is limited to the form of online counselling guidance towards students' awareness and understanding of the introduction of the potential and

skills possessed by each individual with the choice of students' areas of expertise as well as maximizing internal and external motivation in learning.

3.4 Implications

The results of this study can identify and show that students urgently need online counselling guidance in educational conditions. Furthermore, the findings of this study have implications for the form of online counselling guidance in the COVID-19 era, which require service innovations to students, mainly on the three resulting factors; understanding skills, internal and external motivation. For this reason, educators or counsellors to improve student learning readiness according to the potential and skills possessed by each individual.

4 Conclusions

Students and teachers need digital-based online counselling guidance in the millennial era. Digital-based counselling guidance service innovations must provide flexibility and opportunities for students to get to know and understand each student's learning potential through guidance and counselling tests. The findings show that online guidance and counselling services implementing learning in the millennial era [2]. Overall, synergy is needed between education supervisors, committees, principals, teachers and guidance and counselling counsellors to improve students' quality [23].

Acknowledgments. The Ministry of Research and Technology of the Republic of Indonesia which has funded and supported this research. Our thanks go to Muhammadiyah Sidoarjo University, schools in Sidoarjo district and the team involved and contributed to the research and publication of this research.

Author Contributions Statement. All writers in this research team contributed according to their respective expertise with maximum processes, such as making research instrumentation, instrument validation, instrument distribution to respondents, writing research reports, analyzing data collection and writing blueprints to complete articles.

References

1. Chan HCY, Chan L. Smart Library and Smart Campus. *J Serv Sci Manag.* 2018; 11(06):543–64.
2. Rafique GM, Mahmood K, Warraich NF, Rehman SU. Readiness for Online Learning during COVID-19 pandemic: A survey of Pakistani LIS students. *J Acad Librariansh [Internet].* 2021; 47(3): 102346. <https://doi.org/10.1016/j.acalib.2021.102346>
3. Fahyuni E., Fauziyah Y, Rindaningsih I, Shoollah RA. Pendampingan Konselor Sekolah Pada Pengenalan Potensi Belajar Siswa di MTs Darussalam Kabupaten Sidoarjo. *Dedication J Pengabdian Masy.* 2021; 5(1):15–26.

4. Malhotra R, Kumar D, Gupta DP. An android application for campus information system. *Procedia Comput Sci* [Internet]. 2020; 172:863–8. <https://doi.org/10.1016/j.procs.2020.05.124>
5. Bastemur S, Bastemur E. Technology Based Counseling: Perspectives of Turkish Counselors. *Procedia - Soc Behav Sci*. 2015; 176(1998):431–8.
6. Lim MTC, Ramamurthy MB, Aishworiya R, Rajgor DD, Tran AP, Hiriyur P, et al. School closure during the coronavirus disease 2019 (COVID-19) pandemic – Impact on children’s sleep. *Sleep Med* [Internet]. 2021; 78(January 2020):108–14. <https://doi.org/10.1016/j.sleep.2020.12.025>
7. Karasmanaki E, Tsantopoulos G. Impacts of social distancing during COVID-19 pandemic on the daily life of forestry students. *Child Youth Serv Rev* [Internet]. 2021; 120(December 2020):105781. <https://doi.org/10.1016/j.childyouth.2020.105781>
8. Roy A, Jas DS, Jaggi G, Sharma K. Android Malware Detection based on Vulnerable Feature Aggregation. *Procedia Comput Sci* [Internet]. 2020; 173(2019):345–53. <https://doi.org/10.1016/j.procs.2020.06.040>
9. Eliasa EI. Counsellor Roles on Students’ Lifelong Learning Understanding (A Psychological Study Based on Ecological System Theory). *Procedia - Soc Behav Sci* [Internet]. 2012; 46(1): 5703–6. <https://doi.org/10.1016/j.sbspro.2012.06.501>
10. Rahman SR. Pembelajaran Online di Tengah Pandemi Covid-19. *Indones J Educ Sci*. 2020; 02(02): 81–9.
11. Fahyuni EF, Wasis, Bandon A, Arifin MBUB. Integrating islamic values and science for millennial students’ learning on using seamless mobile media. *J Pendidik IPA Indones*. 2020; 9(2):231–40.
12. Alzaylaee MK, Yerima SY, Sezer S. Computers & Security DL-Droid : Deep learning based android malware detection using real devices. *Comput Secur*. 2020; 89: 1–11.
13. Bousalem Z et al. ScienceDirect Personalized adaptive content system for context- aware ubiquitous learning. *Procedia Comput Sci*. 2018; 127: 444–53.
14. Prihandoko et al. The development of counseling services assisted by the application of go couns to develop self-esteem in junior high schools throughout semarang. *Int J Sci Technol Res*. 2020; 9(4):2903–5.
15. Petrus J, Sudibyo H. Kajian Konseptual Layanan Cybercounseling. 2017; 6(1):6–12.
16. Storch EA, Sheu JC, Guzick AG et al. Impact of the COVID-19 pandemic on exposure and response prevention outcomes in adults and youth with obsessive-compulsive disorder. *Psychiatry Res* [Internet]. 2021; 295(October 2020):113597. <https://doi.org/10.1016/j.psychres.2020.113597>
17. Katz C, Priolo Filho SR, Korbin J, Bérubé A, Fouché A, Haffejee S, et al. Child maltreatment in the time of the COVID-19 pandemic: A proposed global framework on research, policy and practice. *Child Abus Negl*. 2020; (November):1–14.
18. Gozali A. Bimbingan dan konseling berbasis teknologi informasi pada masa PSBB (Pembatasan Sosial Berskala Besar). *J Bimbingan Konseling Pendidik Islam Couston J Couns Educ Layanan* [Internet]. 2020; 1(2): 36–49. <http://journal.bungabangsacirebon.ac.id/index.php/couston/article/view/117>
19. Hernawati L, Al. S et. The Effectiveness of Cyber Counseling Service to Enhance Student Performance in Statistics. 2018; 247(Iset):302–6.
20. Haryani, et al. Improvement of metacognitive skills and students ‘ reasoning ability through problem-based learning Improvement of metacognitive skills and students’ reasoning ability through problem-based learning. 2018; 493–9.
21. Koper R. Conditions for effective smart learning environments. *Smart Learn Environ*. 2014; 1(1): 1–17.
22. Zainudin ZN et al. Client’s Satisfaction in Face-To-Face Counselling and Cyber Counseling Approaches: A Comparison. *Int J Acad Res Bus Soc Sci*. 2018; 8(3): 677– 84.

23. Liston J, Geary T. Evaluating a Guidance Counsellor Education Programme: The Methodological Complexities. *Procedia - Soc Behav Sci* [Internet]. 2015; 191(0): 1014– 8. <https://doi.org/10.1016/j.sbspro.2015.04.650>
24. Mesters I, Keulen HM van, de Vries H, Brug J. Counselor competence for telephone Motivation Interviewing addressing lifestyle change among Dutch older adults. *Eval Program Plann* [Internet]. 2017; 65(May):47–53. <https://doi.org/10.1016/j.evalprogplan.2017.06.005>
25. Blaschke LM, Hase S. Heutagogy and digital media networks: Setting students on the path to lifelong learning. *Pacific J Technol Enhanc Learn*. 2019; 1(1):1–14.
26. Madleňák R et al. Designing a Social Network to Support E-learning Activities at the Department of Communications, University of Žilina. *Procedia - Soc Behav Sci*. 2015; 176:103–10.
27. Putri VD. Layanan Bimbingan dan Konseling Daring Selama Masa Pandemi COVID- 19. *J Bimbing Konseling Pendidik Islam*. 2020; 1(2):7–16.
28. Daik AK V, Abi AM, Bien YI. Analisis gaya belajar matematika pada siswa kelas vii smp negeri oebaki. *J Pendidik Mat*. 2020; 2(1):18–24.
29. Peura P, Aro T, Räikkönen E, Viholainen H, Koponen T, Usher EL, et al. Trajectories of change in reading self-efficacy: A longitudinal analysis of self-efficacy and its sources. *Contemp Educ Psychol*. 2021; 64(January).
30. Guabassi E, Bousalem et al. Personalized adaptive content system for context-Aware ubiquitous learning. *Procedia Comput Sci*. 2018; 127: 444–53.
31. Cresswell JW. *Research Design. Qualitative Approaches, Quantitative and Mixed Methods*. Publication, (Fourth Edn). Sage; 2014. 347 p.
32. Golonka K, Makara-studzi M. Self-Efficacy as a Moderator between Stress and Professional Burnout in Firefighters. 2019;
33. Sajnani N, Mayor C et al. Aesthetic presence: The role of the arts in the education of creative arts therapists in the classroom and online. *Arts Psychother*. 2020; 69(February):101668.
34. Wilde N, Hsu A. The influence of general self-efficacy on the interpretation of vicarious experience information within online learning. *Int J Educ Technol High Educ*. 2019; 16(1).
35. Sari AK. Analisis Karakteristik Gaya Belajar VAK (Visual, Auditorial, Kinestetik) Mahasiswa Pendidikan Informatika Angkatan 2014. *J Ilm Edutic*. 2014; 1(1):1–12.
36. Mashurwati Y. Penerapan inventory tes gaya belajar remaja dengan aplikasi google form, media sosial serta pengembangan program layanan bimbingan dan konseling terkait. *J Educ J Pendidik Indones*. 2018; 4(1):1.
37. Widaryanti. D et al. Meningkatkan Hasil Belajar Siswa dengan Memanfaatkan Kecerdasan Majemuk pada Penerapan Model Kooperatif Tipe STAD. *J Penelit Pembelajaran Mat Sekol*. 2018; 2(1):129–39.
38. Alfaiz A, Hidayat H, Yandri H, Tina A, Sari L, Sendayu FS, et al. Identification of Perceived Self-Efficacy to Predict Student ' s Awareness in Career Readiness. *Islam Guid Couns J*. 2021; 4.
39. Nasir JA, Khan OS, Varlamis I. Fake news detection: A hybrid CNN-RNN based deep learning approach. *Int J Inf Manag Data Insights*. 2021; 1(1):100007.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

