

Invalidor (Counselor Service Innovation): Cyber Counseling Application with Comprehensive Counseling Model As A Student's Academic Planning in the Era of Society 5.0

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Article history

Received December 16, 2022

Revised February 29, 2024

Accepted February 29, 2024

Keywords:

Guidance & Counseling,
Cybercounseling, Student
Academic Planning,

ABSTRACT

Almost all parts of the world are currently being hit by the outbreak of the Coronavirus Disease (Covid-19) which has a profound impact in the field of education is to change the process of face-to-face learning in schools to become online learning. As the main practitioner of guidance and counseling services, they must also keep up with industry developments into the Society 5.0 era. The implementation of long distance counseling can be done using Cyber Counseling techniques. As for this scientific paper, the authors use the literature review method and the Research and Development (RnD) model with a 4D model (Define, Design, Development, and Dissemination) and SWOT analysis to assist in providing an interpretation of the ideas and ideas that have been planned. Therefore, the purpose of writing this scientific paper is to find out the concepts, principles, and effectiveness of Society 5.0, Cyber Counseling, Comprehensive Counseling, and Academic Planning for Students. It is hoped that the INVALIDOR application can be useful for guidance and counseling services in a more advanced era in preparing superior and competent Indonesian students, as well as mastering the skills needed in this 5.0 society era so that students have a competitive spirit to survive and compete globally.

I. INTRODUCTION

Almost all parts of the world are currently being hit by the outbreak of the Coronavirus Disease (Covid-19) which has a profound impact on the entire fabric of life. Covid-19 started in Wuhan, China which has now been declared a pandemic by the world health organization [1]. So that it directly affects changes and policy reforms to be implemented to adapt to the Covid-19 pandemic. The new policy of course also occurs in the educational field which is required to follow the adaptation flow. One of the government's recommendations in the educational field is to change the face-to-face learning process in schools to be online (online). Reporting from the news site TribunManado.co.id (17/06/2020), Through a notification from the Minister of Education and Culture, Mr. Nadiem Makarim on June 15, 2020, that learning for the new academic year 2020/2021 will begin in July 2020 with terms and rules strict. Learning is carried out online for areas that are included in the red zone and maybe done face-to-face for areas that are included in the green zone. The result is 94% of students in Indonesia are prohibited from doing face-to-face learning.

Indeed, the learning process at school is the best means as an effort to increase students' knowledge and skills. In addition, doing face-to-face learning at school is a very fun activity because students can interact with each other. With face-to-face learning in school, students can also improve their skills and social awareness of students. However, at this time the learning process in schools has stopped as the consequence of Covid-19. Nevertheless, the process of providing education must keep going on. The educational process shall be carried out anywhere, anytime. This kind of learning can be supported by the optimization of technology.

Currently, we are in the era of the Industrial Revolution 4.0 and have begun to switch to using a perfect concept, namely Society 5.0 [2]. According to Prof. Klaus Schwab (2017) The presence of the Industrial Revolution 4.0 provides convenience for humans with machines and technology, which have an impact on the automation of all fields.

The development of information technology in the Industrial Revolution 4.0 era is increasingly sophisticated and rapidly growing, it showed by the increasing number of new technologies creations. According to Martin [3] Information Technology is a technology that is not only on computer technology (hardware and software) that will be used to process and store information but includes communication technology to send or disseminate information. So, Information Technology is a technology that is not only related to computer technology but also long-distance communication that sends information through electronic media. Information and communication technology will facilitate and cause the connection of many people in one world communication network that does not pay attention to the distance of place and time.

The concepts of the Industrial Revolution 4.0 and Society 5.0 have no specific differences. The concept of Society 5.0 focuses more on the context of humans. If the industrial revolution 4.0 uses the main components in the form of technology such as software, AI, artificial intelligence to make it easier for humans to carry out their activities. Meanwhile, Society 5.0 is an era where all components of technology become a single entity from humans themselves [4]. So, the use of technology in the process of providing education will be inevitable.

The implementation of the educational process cannot be separated from the guidance and counseling services. Guidance and counseling services are all elements related to the coordinator and guidance and counseling teacher as the primary implementer. Guidance and counseling teachers are the teachers who have undivided duties, responsibilities, authority, and rights in guidance and counseling activities in the number of students. The activities of guidance and counseling services are to accompany and assist students in their efforts to find themselves, adjust to the environment, and be able to plan for their future.

The specific functions of guidance and counseling services in schools, according to [5] are as follows: 1) Helping students in overcoming their learning difficulties, 2) Provide learning according to the interests and talents of students, 3) Assisting the students who will quit or graduate from school,

4) Provide direction to students who will continue their studies, and so on. This specific function is included in the effort to educate which should be the duty of the teacher to the students. If defined specifically, guidance and counseling services include all techniques of counseling/intervention (counseling) and all information to help individuals, in this case, is students.

In the guidance and counseling realm, various services are prepared to provide an understanding and planning to students regarding their future. One of them is a comprehensive guidance and counseling service or Comprehensive Counseling. The Comprehensive Counseling Program facilitates optimal student development in 3 areas (academic, career, personal and social) to improve and learn [6]. Right here, it is clear that the urgency of the Comprehensive

Counseling service itself. Then in the process of life, later the students will be faced with career challenges. Guidance and counseling are also responsible for the career development of students. In accordance to Kolbert [7] in his book *Introduction to professional school counseling: Advocacy, leadership, and intervention*, explain that guidance and counseling have a crucial role in the career development of students in the future. In particular, it was explained that one of the crucial things in the student career preparation process is to use good Academic Planning.

The impact of Covid-19 and Society 5.0 is a challenge for changing the concept of learning for counselors so they can play an active role in providing assistance and solving student problems through guidance and counseling services to students. Guidance and counseling teachers are also required to develop their competencies to carry out their duties in providing online long-distance guidance and counseling services. One thing that can be done is by utilizing technological sophistication, namely through the internet network, with the internet a person can easily access anything, anywhere without any age limit, as long as he has a connection to the internet.

The reason to use the internet network is also supported by the huge number of Indonesian people accessing the internet. Based on APJII (Association of Indonesian Internet Service Providers) in 2017 stated that internet users in 2017 reached 143.26 million people out of 262 million people in Indonesia. It means that 54.68% of the Indonesian population are active internet users. That way guidance and counseling teachers can use the internet as a forum to support the services that will connect counselors with counselees.

The use of guidance and counseling services through a distance can be done using cyber counseling techniques. Cybercounseling is one of the strategies that counselors can use in process of implementing Guidance and Counseling services [8]. The implementation of cyber counseling is carried out online and remotely wherever a person is, in one condition that they are still connected to the internet network. Nowadays, a lot of cyber counselings are developed and run through online sites.

Therefore, by looking at the various positive responses to the use of online counseling, here the author offers media that can be used as an alternative solution for guidance and counseling teachers

in carrying out mentoring and guidance and counseling services as Academic Planning students online, namely through the development of the "INVALOR" (Innovation Counselor Service), an application which utilizes the Cyber Counseling media base using the Comprehensive Counseling model.

II. METHODS

The writing of this paper uses the method of literature study and observation from references in the form of books, journals, scientific articles, and several other works of literature. The author collects data to use it as a basis for analyzing problems and finding solutions to discussions. The data analysis technique is done by looking for the relationship between each aspect and indicator to be compiled into a scientific paper. According to Endang [9], the procedure for implementing the 4D model includes several stages, namely, define (definition), design (design), development (development), and dissemination (dissemination). Currently, the author is still in the stage of developing the concept and design. Furthermore, after developing the concept and the design, the author proceeds to the application development stage using Adobe Flash software. After the application is formed, further testing of the feasibility of the application system is carried out. So, later when the whole process goes well, the application is ready to be disseminated for learning purposes.

III. RESULTS AND DISCUSSION

Starting from the shift of the Industrial Revolution 4.0 to Society 5.0, it opened changes in human life in various lines of life. Indonesia as a developing country is entering the Industry 4.0 era, of course, we must immediately prepare for changes in the next era, namely Society 5.0. We must design this preparation as much as possible because this era of Society 5.0 is the answer to the effectiveness of Industry 4.0 in Indonesia.

The fundamental changes from the framework of the industrial revolution 4.0 to Society 5.0 are not too many. If in Industry 4.0 is a CPS (cyber-physical system) era, which is the integration among computing, physical systems, and communications/networks. So, Society 5.0 is the era of improvement from the CPS (cyber-physical system) to a cyber-physical-human system [10]. Where humans will play an active role as subjects who can utilize technology in achieving goals.

The Covid-19 outbreak is a new momentum in the development stage of Society 5.0 in Indonesia. Indirectly, the epidemic forces us to maximize the principles of Society 5.0, namely the integration between the use of technology and its usefulness in human life. One of them is maximizing the education realm, where education during the pandemic is required to keep going with the Learn From Home rules by the Ministry of Education and Culture.

3.1. The Collaboration of Comprehensive Counseling as Student Academic Planning

Academic Planning is a planning standard for students who are currently in high school and will continue their studies and careers. Academic Planning is important because this standard is very

concerned about student achievement during the learning period at school. Therefore, Guidance and Counseling is the supervisor of student planning tasks in schools that must create a service model that can ensure the achievement of student Academic Planning. In this paper, the author chooses to use the Comprehensive Counseling model as a service that will ensure the achievement of students' Academic Planning. Because in comprehensive counseling there are some components and systems that are well structured.

According to [11], material delivery in Comprehensive Counseling can be carried out through the division of service components, called: 1) Basic Services, 2) Individual Planning Services, 3. Responsive Services, and 4) System Support [12]. Then all components were conveyed to students through a management system or management system. The implementation of this management system must take into several elements, that are: 1) Agreement, 2) Fund Support, 3) Action Plan and 4) Activity Calendar.

It means that the management system can run if all parties agree on all the needs related to the services given to the students. After reaching an agreement, financial support must be arranged to support the achievement of the objectives of the Comprehensive Counseling program. In this section, the counselor designs the budget for the funds needed to carry out the guidance and counseling service program in schools. Then it is necessary to carry out an activity plan that describes in detail the program that describes the structure of the program content, this is done to clarify the guidance and counseling teacher in facilitating students to achieve optimal development. Then it needs to be arranged using an activity calendar so that all service programs can be scheduled smoothly.

3.2. The Utilization of Cyber Counseling

Cybercounseling is a strategy for providing Guidance and Counseling services online. The implementation of cyber counseling generally utilizes websites and social media that are connected to the internet. The use of cyber counseling media itself is considered quite effective. Finn & Barak conducted a study of 93 online counselors that showed that overall counselors were satisfied with their practice and believed that the implementation of cyber counseling was running smoothly and effectively (Finn, 2010).

Furthermore, according to a survey conducted by the American Psychological Association (APA) during the Covid-19 pandemic, 2000 counselor respondents as subjects showed positive results. From 2000 counselors, 76% of counselors assessed that the use of online counseling was very effective in providing counseling therapy assistance to clients in the era of the covid-19 pandemic [12]. It certainly ensures the use of cyber counseling as an innovative media base for Guidance and Counseling services.

3.3. Synthesis

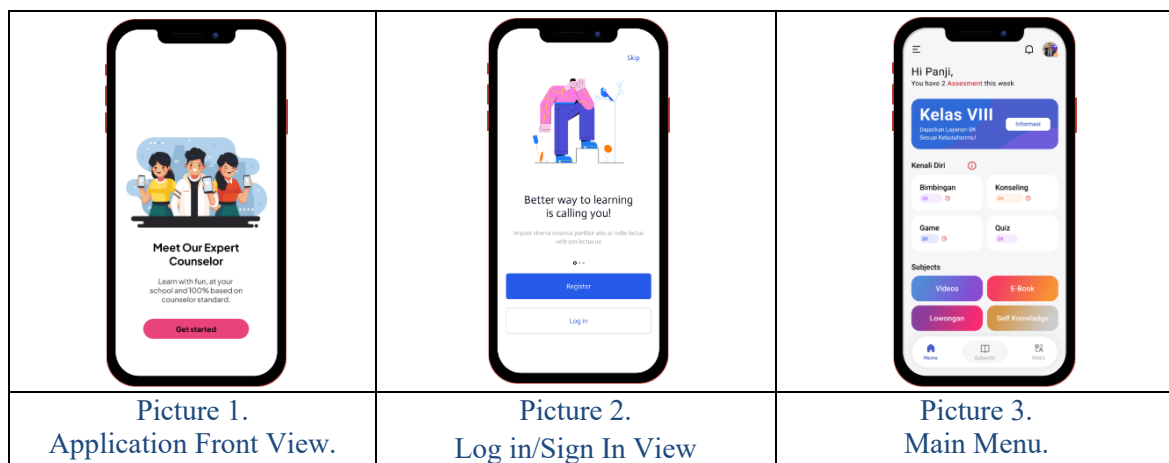
The change from the Industrial Revolution 4.0 to Society 5.0 brings society to a more advanced civilization. The benefits of technology for humans must go well. The worries that have arisen can be

used as new opportunities in living life. Education as one of the fields of life must be able to open up new opportunities.

Counseling guidance which is an element of education has a media service base, namely cyber counseling. By looking at the various positive responses to the use of online counseling, the author offers media that can be used as an alternative solution for guidance and counseling teachers in carrying out online comprehensive counseling model in applying student's academic planning, through the INVALOR (Counselor Service Innovation) which utilizes a cyber counseling media base. The application is designed through various features that match the needs of students during online learning. This application is also suited for students who are embarrassed to tell their problems to the counselee and assist the counselor in identifying problems of the students and the development process experienced by the counselee.

The advantages of the INVALOR application include[13]: 1) providing a new atmosphere and innovation in providing counseling services dynamically in accordance with the times, 2) being more attractive and practical to use because it is easy to access, 3) providing space for guidance and counseling teachers and students to interact with each other. anytime and anywhere, both at school and outside of school, 4) Has various features that allow students to access services and information according to the desired choice, 5) Contains information that can be accessed repeatedly by the counselee.

INVALOR is the first step for the younger generation in the millennial era to take advantage of technological sophistication that brings convenience to individuals as consumers. INVALOR is designed with cyber counseling through an android application that is adapted to a comprehensive counseling model[14]. The first way to access this application is to download it on the play store page and then sign in to the application. After signing in, there will be several features that support the provision of services including information screens, quizzes, guidance, counseling, games, videos, vacancies, e-books and journals, self-knowledge, and about us. Below are some of the descriptions contained in the INVALOR application:



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In this picture 2, the user will be directed to sign in to register on this application or directly log in if they have already registered. Later there will be the user information that will be displayed or you can associate it with the email account you have.

After registration, you will enter the main menu in picture 3. In this main menu, there are various choices of programs that can be used according to the needs of BK students and academics. The following are the menu options available in the INVALOR application[15]:

1. The first option is an information page menu that contains various information in the form of news, individual announcements, sharing, assignments regarding counseling, or new news that is happening around. So that students are able to have broad knowledge and think logically and critically about the phenomena that are happening.
2. Option number two is the quiz menu which contains questions as material consolidation and evaluations that have been given by the counsellor.
3. The third option is the guidance menu which includes planning in the personal, social, academic, and career fields. In this menu, students will get various services about personal, social, academic, and career planning. In addition, there are various motivational videos and videos about ways to plan a good future.
4. The fourth option is the counseling menu. This menu is a place where students can ask questions, express all their problems and conduct online counseling sessions through personal chats between counselors and counselees or by direct video calls. Students can also choose a counselor from the list of counsellors.
5. The fifth option is the game menu. This menu contains various educational games such as puzzles, snakes and ladders, and ludo that have modifications with educational elements. The benefit is that students feel happy and active when getting services from counsellors.
6. The sixth option is the video menu. This menu contains a collection of educational, motivational, and learning videos.
7. The seventh option is the vacancy menu. This menu is specifically for vocational students who will or have graduated from the study because this menu contains various information about job vacancies. This menu is connected with websites that contain job vacancies. This menu is made based on Howard's career theory, named the theory of multiple intelligences that consists of eight different types of intelligence based on biopsychological potential. The multiple intelligences are linguistic, mathematical-logical, spatial, musical, kinesthetic, naturalist, interpersonal, and intrapersonal bits of intelligence (Gardner in Raharjo, 2010).
8. The eighth option is the e-book and journal menu. The menu will contain various e-books and journals that can be used as reading references and to increase the literacy of the students and

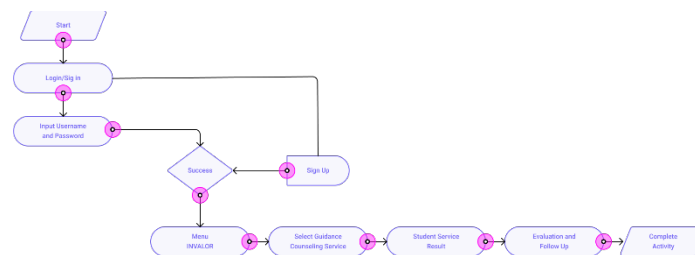
guidance and counseling teachers. To support the availability of e-books and journals, later this menu will directly connect to the National Library website.

9. The nine choices are the self-knowledge menu which contains personality, talent, and interest tests that can be carried out online. The test instruments used are tests that already exist but are published online, such as TOEFL, RMIB, CFIT, IST, etc. So that students/counselors can explore their knowledge well. Besides, the counselor/counselor whom the students choose to do online counseling sessions can know the result of the instruments test.
10. The last option is the menu about us. This menu contains various information and assistance about how to use the INVALOR application.

The menu in the INVALOR application is adapted to a comprehensive counseling model that is oriented to student needs. In addition, the author is still developing and looking for a better formulation. It is hoped that the development of this application can be useful for guidance and counseling teachers and students in preparing academic planning in the Society 5.0 era[16].

3.4. INVALOR Application Procedure

The usage procedure section is explained through a flowchart that contains usage guidelines for students as users. The procedure for using the INVALOR Application[17]:



Picture 4. INVALOR Usage Procedure.

3.5. The Primacy of INVALOR Based On SWOT Analysis Review

The INVALOR application has advantages including, (1) being accessible, easy to access because it is provided in two systems, namely Application/mobile-app; (2) educative, providing literacy for students effectively with material and motivational videos; (3) trusted, as a network of secret principles managed by a database held by counselors in providing guidance and counseling services in schools. The results of the SWOT risk analysis in the INVALOR Application are as follows:

Internal Eksternal	Kekuatan (S)	Kelemahan (W)
	1. Membantu database konselor disekolah untuk dapat memberikan layanan bimbingan dan konseling selama masa pandemi. 2. Memberikan banyak fitur online yang memudahkan untuk dapat memberikan layanan bimbingan dan konseling selama masa pandemi.	1. Hanya tersedia dalam bentuk aplikasi yang dapat digunakan di <i>mobile phone</i> . 2. Harus terhubung dengan jaringan internet.
Peluang (O)	S-O	W-O
1. Memudahkan pekerjaan konselor pada masa pandemi. 2. Membantu program pemerintah. 3. Banyak siswa yang membutuhkan layanan BK di masa pandemi.	1. Menarik siswa untuk dapat menggunakan fasilitas bimbingan dan konseling dimana pun kapan pun. 2. Menjawab permasalahan yang sedang terjadi dikalangan siswa.	1. Mengembangkan fitur-fitur menarik lainnya sebagai penunjang dalam pemberian layanan BK. 2. Pembaharuan <i>storage database</i> pada aplikasi.
Ancaman (T)	S-T	W-T
1. Persaingan dari platform lain. 2. Koneksi internet.	1. Meningkatkan pelayanan BK daring pada siswa. 2. Meningkatkan peran konselor dalam menghadapi masalah yang ada.	1. Meningkatkan Inovasi Pengembangan Aplikasi 2. Membutuhkan dukungan SDM yang terampil

Table 1. Risk Analysis SWOT INVALOR.

Preparation for the development of the INVALOR Application takes 4 (four) months before the application can be operationalized and implemented in bulk. Broadly speaking, it consists of three stages, namely:

1. It took 3 weeks to build the INVALOR team, to carry out the planning, organizing, commanding, coordinating, and controlling functions in achieving the goals.
2. The preparation of the INVALOR Application system takes 2 months. The preparation of the developer programmer is done by building the INVALOR Application system. Physical preparation is also required in the form of the necessary facilities and infrastructure. After the system is built, it is necessary to train the team to run the system. Next, the pilot phase will begin to mature the team in running the system. During this trial period, there will be adjustments between the program plan and field conditions. Seeing the obstacles faced can be used as evaluation material to improve the program.
3. In the grand opening stage of the INVALOR application which takes 5 weeks, the program that is ready to run will be advertised and introduced to the school community.

CONCLUSION

From the description above, it can be concluded that the INVALOR application was developed and adapted to the principles of human-centered technology. The existence of technology now makes it easier for BK teachers to use service media more broadly during the Covid-19 pandemic and supports Society 5.0. The INVALOR application with a comprehensive counseling model is a means that can support the provision of counseling guidance services, especially in student academic planning. It is hoped that the development of this application can be used by BK teachers as an innovation in providing counseling services online and maximally. And it can be useful in preparing excellent and competent Indonesian students, as well as mastering the skills needed in this era of society 5.0. So that students will have a competitive spirit to survive and compete globally.

In implementing the use of the INVALOR application, there is a need for harmony between technological sophistication and human benefit. The development process must have a clear concept of goals and not deviate from the initial goals of development along with the delivery system. In addition, it is necessary to strengthen a more specific comprehensive counseling model. Then in its operation, guidance and counseling teachers are needed who can master the competence of comprehensive counseling services and can run digital-based learning media

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