



MIMBAR PENDIDIKAN:

Jurnal Indonesia untuk Kajian Pendidikan

Journal homepage: <https://ejournal.upi.edu/index.php/mimbardik>



P2T UPI Website Development Mobile Application Based as A Mental Health Solution in the Digital Era

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ABSTRACT

Mental health is one aspect of health that needs attention. One of the efforts to control it is by providing mental health services by professionals such as counselors, psychologists, and psychiatrists. Currently, many mental health services are ready to serve the community. One of them is the Applied Psychology Center (P2T) which is fostered by the Psychology Department of the Indonesian Education University (UPI). To improve services and access to mental health services, the author tries to combine counseling services with technology or what is commonly called cyber counselling by developing a mobile application-based P2T UPI website. The author distributed questionnaires to 36 UPI students who combined open and closed questions to see the estimated effectiveness of this application development as well as the respondents' enthusiasm for the application design and related it to various theoretical foundations. The results showed the respondents' enthusiasm for the design of the P2T UPI website development based on mobile applications.

ARTICLE INFO

Article History:

Submitted/Received 24 Jan 2021
First Revised 30 Jan 2021
Accepted 06 Feb 2021
First Available online 01 Mar 2021
Publication Date 01 Mar 2021

Keyword:

*Application;
Cyber counseling;
Mental health
Technology.*

1. INTRODUCTION

Mental health is one aspect of health that must be considered. Kartono (in Dewi, 2012) states that a normal or mentally healthy person is a person who displays behavior that is adequate and acceptable to society in general, his life attitude is in accordance with the norms and patterns of society, so that there are satisfying interpersonal and intersocial relationships. Good mental health can make a person enjoy their life because they are surrounded by a peaceful and calm inner condition. In addition, mental health also affects a person's awareness of their potential. Conversely, if mental health is impaired, it will have a major impact on a person's life.

The results of Riskesdas (Basic Health Research) in 2018, the prevalence of households with members suffering from schizophrenia/psychosis was 7/1000 with treatment coverage of 84.9%. Meanwhile, the prevalence of mental emotional disorders experienced by adolescents aged >15 years was 9.8%. This figure increased compared to 2013 which amounted to 6%. Research conducted by Riskesdas shows that mental health is an issue that requires more attention. Stigma still surrounds most Indonesians who still think that mental health disorders are caused by irrational things such as supernatural powers (magic, evil spirits, breaking myths, etc.). As a result of this stigma, people view mental health disorders as taboo.

One of the efforts to control and prevent mental health disorders is the provision of mental health services in health facilities. Mental health services are carried out by professional experts in their fields such as psychologists, psychiatrists, and within the scope of schools carried out by counseling teachers. Counseling services are usually conducted face to face between the counselor and the client in one room with the hope that the client can determine the right decision to overcome his problem, then act according to his decision. However, for some people this face to face counseling activity is not a pleasant thing. Meeting new people sometimes causes fear and discomfort. So what is the solution to this?

Counseling can still be done by utilizing technology that continues to develop. Technology overcomes the limitations of space and time so that many activities can be done remotely. Counseling services are no different. Counselors and clients no longer need to be in the same room, rather counseling activities can be done online. This idea is called cyber counseling or virtual counseling. In simple terms, cyber counseling is a breakthrough that offers virtual counseling activities where its use utilizes the network. S. Asrowi (Sutijono & Farid, 2018) argues that cyber counseling is a counseling service that is carried out anywhere and anytime, prioritizing connections or connected to the internet, so that it has practical and innovative value. This certainly eliminates some of the concerns of clients who do not really like face-to-face meetings with new people when doing counseling.

Referring to previous research conducted by Hongryun Woo (Woo et al., 2020) in an article entitled A Content Analysis of the Counseling Literature on Technology Integration: American Counseling Association (ACA) Counseling Journals between 2000 and 2018 stated that increasing access to technology has an impact on the need for more research on the use of technology-integrated methods, both in counseling practice and counselor education. For example, in the current Covid-19 pandemic conditions that require remote counseling with various challenges that accompany it, such as the level of confidentiality, methods that can be done, and various other contexts and situations. Based on that, it is important for future

studies to examine the elements integrated with technology to keep the counseling field on par with the increasingly pervasive nature of technology in today's world.

The article *Online/Cyber Counseling Services in the COVID-19 Outbreak: Are They Really New* written by Dominikus David Biondi Situmorang (Situmorang, 2020) also discusses that online counseling or cyber counseling is the right counseling option in lockdown situations during the Covid-19 pandemic. The most important issue to be studied in conditions like this is about mental health caused by viral infections, isolation, restrictions on social activities, sleep disorders, hoax news, stress, excessive anxiety, and so on. In the article, cyber counseling can be done by those who work in the field of health, especially mental health for free through social media platforms such as information sharing, invitations, and so on as a form of humanity towards others. In contrast to *Cyber Counseling in the Era of the Millennial Generation* written by Sutijono and Dimas Ardika Miftah Farid (Sutijono & Farid, 2018) where the article explains more about the role of counselors in the era of globalization. The article states that counselors must always innovate in providing their services, recognize the characteristics of the millennial generation, and have ICT (Information and Communication Technology) competencies that can support their services. The integration of these aspects is very appropriate to be applied in cyber counseling which can also save costs and time.

Based on the previously mentioned studies, where cyber counseling is a new breakthrough to be applied in counseling services, especially in the conditions of the Covid-19 pandemic like this, the author tries to develop or modify a mobile-based cyber counseling application from a P2T (Applied Psychology Center) website of Universitas Pendidikan Indonesia (UPI) which is managed by the UPI Psychology department.

The development of the P2T UPI website into a mobile-based application is here to overcome mental disorders caused by a lack of friends to tell stories or motivation within themselves. This application is specifically for students, considering that at the lecture level students are the students who have the least friends to share stories with each other because they have begun to be busy with all lecture and organizational activities. With the features in this application will make users have the sensation of an application-based friend. The meaning of a friend here is a place where users complain, learn, and provide solutions to personal or career problems.

In its application, this mobile-based P2T UPI application utilizes technology in accordance with the times and human mental needs. Where in it there are six main features, namely the homepage, individual counseling, counselor meetings, user forums, chat bots, and story friends. In the six main features there are still other interesting features. The most interesting feature of the P2T website development into a mobile application is the morning friend notification feature which is included in the main feature of story friends. This morning friend notification can be activated by the user, thus motivating the user to always be enthusiastic in doing daily activities.

Based on the explanation above, the application of cyber counseling applications at the lecture level is very important. There are still many students who are still hesitant to tell their problems to their families. Even within the scope of friendship, it is not uncommon for those who cannot be open or are still hesitant in telling their problems. If it is suppressed, it will cause a very serious condition. It is no longer depression that can be caused but can lead to suicide attempts, cutting and others.

Overall, this article was created with the aim of exploring the role of the P2T UPI mobile application in influencing a person's mental health and explaining the application innovation developed by the author. More specifically, the purpose of this research is to find out whether the P2T UPI application is able to help overcome and prevent student mental disorders or not. The research data was taken from distributing questionnaires by taking a sample of Universitas Pendidikan Indonesia students.

2. METHODS

The participants in this study were active students of Universitas Pendidikan Indonesia. From the distribution of the questionnaire, the sample obtained was 36 respondents. 30 respondents are known to their majors and classes, while the other 6 respondents are unknown.

The sampling technique used in this research is purposive sampling, which focuses on active students of Universitas Pendidikan Indonesia, especially for those who have used P2T UPI services. The data collection in this study used a questionnaire method that combined closed and open questions.

The P2T UPI the website to be mobile-based is developed by looking at respondents' answers regarding the features they expect the P2T application to have. The questions presented in the questionnaire specialize in developing features in the P2T application to be designed attractively, simply, and effectively in helping maintain student mental health.

Students' mental health will be questioned in the questionnaire through the development of the P2T UPI application. Students will be given choices regarding the effectiveness of using the P2T application in maintaining mental health and comparing the UPI P2T website with mobile-based P2T to measure the higher level of effectiveness in maintaining student mental health.

The procedure for distributing this questionnaire included: 1) Creating a list of questions in google form, and 2) Distributing the questionnaire link that has been made through whatsapp status, whatsapp groups, and personal chat on whatsapp to friends who are in different study programs or classes.

Respondents' study program background

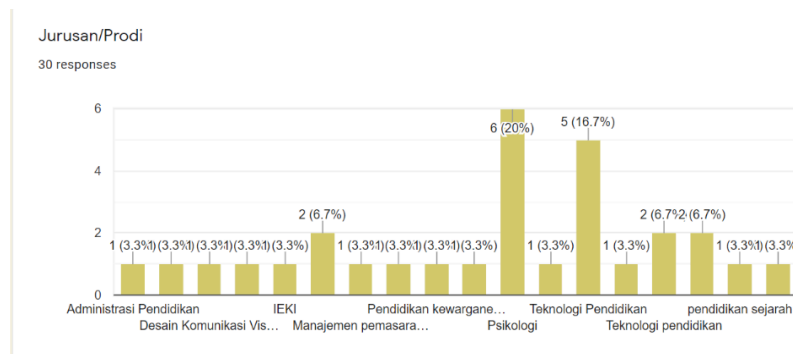


FIGURE 1. RESPONDENTS' STUDY PROGRAM BACKGROUND

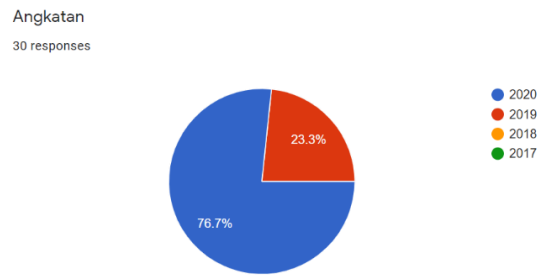


FIGURE 2. RESPONDENT'S YEAR BACKGROUND

3. RESULTS AND DISCUSSION

The research results displayed are data on the experience of UPI students in using counseling services on the P2T UPI website, whether or not they agree with the estimated effectiveness of the application to be developed by researchers, the features expected by respondents in the application, and interest in downloading the application if it is actually developed.

The diagram above shows that 2 respondents (5.6%) claimed to have used counseling services on the P2T UPI website, while 34 other people (94.4%) have never used counseling services on the P2T UPI website.

Jika suatu saat anda merasa membutuhkan layanan konseling, metode konseling seperti apa yang anda pilih?

36 responses

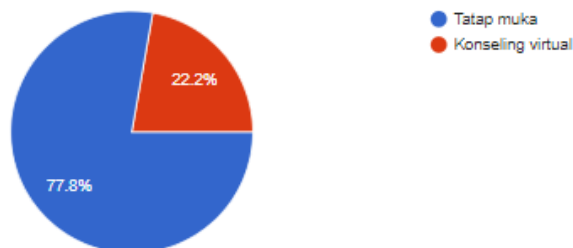


FIGURE 3. COUNSELING METHODS CHOSEN BY RESPONDENTS

Menurut Anda apakah kesehatan mental mahasiswa dapat terjaga melalui P2T berbasis aplikasi seperti pada deskripsi form ini?

36 responses

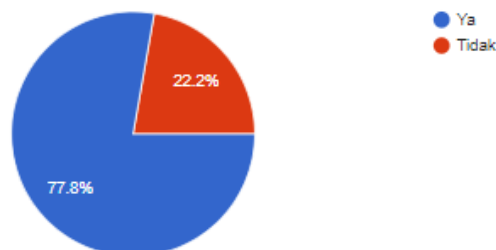


FIGURE 4. SURVEY OF RESPONDENTS' ESTIMATES OF THE APP'S EFFECTIVENESS IN MAINTAINING STUDENTS' MENTAL HEALTH

The 36 respondents differed in their preference for the counseling method they would choose if they ever needed the service. 28 respondents (77.8%) choose to do face to face counseling where the counselor and client are in the same room to conduct counseling sessions. While the other 8 people (22.2%) tend to choose virtual or online counseling where counselors and clients do not need to meet face to face in the same room and utilize technology to conduct counseling services.

In the diagram above, it can be seen that 28 respondents (77.8%) agreed that the P2T UPI website based on mobile applications can be a medium that maintains student mental health based on the features offered. While 8 other people (22.2%) agree that this application cannot be a medium that maintains student mental health.



FIGURE 5. SURVEY OF RESPONDENTS' ESTIMATES OF THE APP'S EFFECTIVENESS IN IMPROVING STUDENTS' MENTAL HEALTH

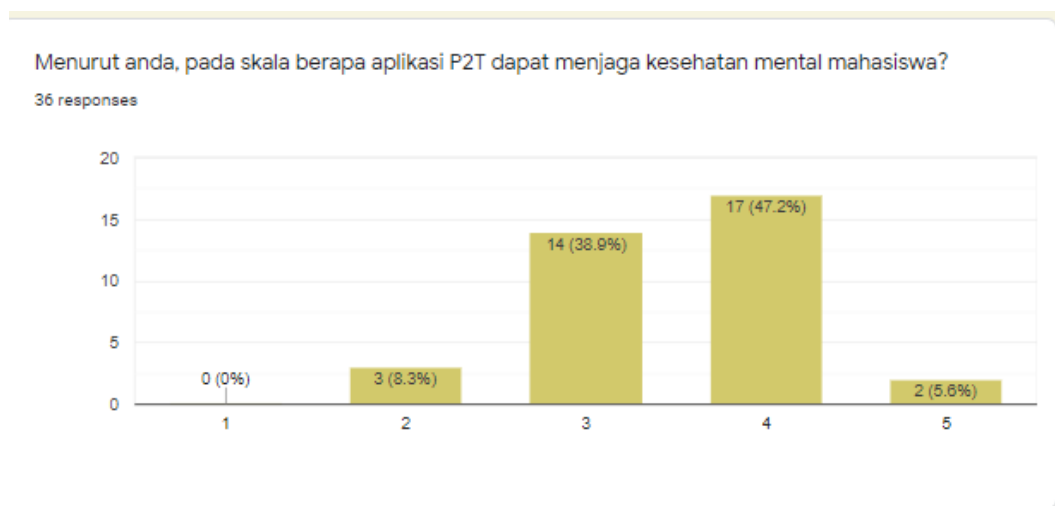


FIGURE 6: SCALE FOR ESTIMATING THE EFFECTIVENESS OF THE APP IN MAINTAINING STUDENTS' MENTAL HEALTH BY RESPONDENTS

The diagram above shows that 31 respondents (86.1%) agreed that the P2T UPI website based on mobile applications is better able to improve student mental health. While 5 other

people (13.9%) said this application was not more capable of improving student mental health.

Based on the diagram above, respondents rated the estimated effectiveness of the P2T UPI website based on mobile applications in maintaining student mental health from a scale of 1 to 5. As a result, 3 people (8.3%) chose scale 2, 14 people (38.9%) chose on scale 3, 17 people (47.2%) chose scale 4, and 2 people (5.6%) chose scale 5.



FIGURE 7. SURVEY OF RESPONDENTS' EXPECTED FEATURES IN THE APP

36 respondents have recommendations for features that are expected to be part of the P2T mobile application studied such as daily journals, mood trackers, vent columns, counseling service packages, counselor profiles, chat features with counselors/psychiatrists, notifications, mental health info and tips, motivational reminders, peer counselors, counseling schedules, and free counselling services.



FIGURE 8. SURVEY OF RESPONDENTS' INTEREST IN DOWNLOADING THE APP

36 respondents chose different scales for their interest in downloading the app. A total of 2 people (5.6%) chose scale 2, 5 people (13.9%) chose scale 3, 18 people (50%) chose scale 4, and 11 people (30.6%) chose scale 5 or very interested.

3.1 The Urgency of Online Counseling Services

The term online counseling refers to two words: counseling and online. According to the Big Indonesian Dictionary (KBBI V), the word counseling means giving guidance by an expert to someone using psychological methods and so on or direction. Meanwhile, APGA (American Personnel Guidance Association) defines counseling as the occurrence of a relationship between someone who is experiencing problems and needs help to overcome these problems so that they can make the best decisions from the problems they experience. Meanwhile, the word online refers to a computer or device that is connected to a network. Definition of online : connected to, served by, or available through a system and especially a computer or telecommunications system (such as the internet) ([Merriam-Webster Dictionary](#)).

With the rapid development of technology and communication, human activities will be greatly assisted by these developments. Technology brings many changes in human lifestyle and needs. Technology also breaks the boundaries of space and time so that people can still communicate and carry out activities together even though they are not in the same room and time. This means that technology enables remote activities.

Of course, we must make the best use of technology. No exception in the field of psychological services, especially counseling services. Counseling can now be done online (in the network) or what is commonly referred to as cyber counseling. Millennials tend to do more communication activities via the internet. This is in line with research by ([Dowling M & Rickwood, 2013](#)) which shows that young people aged 16-25 years tend to access online counseling to solve their problems.

However, based on previous research conducted by taking a sample of students at the Indonesian University of Education (UPI), 77.8% of respondents prefer face to face counseling. This is also the case among counselors based on Zamani's research ([in Ifdil & Ardi, 2013](#)) which shows that counselors claim to prefer face-to-face counseling to provide their services to clients. However, it cannot be denied that online counseling services will be the most sought-after alternative in the digital era as a counseling medium because of its ease and flexibility to access.

3.2 Effectiveness of Online Counseling

A service is said to be effective if it is supported by complete facilities and shows the expected results. Research conducted previously (in the diagram above) shows 77.8% of respondents agree that online counseling services through the development of the P2T UPI website can maintain student mental health. This is in line with research by Finn & Barak ([in Ifdil & Ardi, 2013](#)) on 93 online counselors showing that all of them are satisfied with their practice and they believe that the implementation of this counseling is considered effective. (Ifdil & Ardi, 2013) also admitted that based on their experience, online counseling is quite effective if the problems faced require immediate alleviation while constrained by distance. Online counseling if equipped with supporting media and the availability of adequate networks will be almost the same as face to face counseling. This is in line with the research

conclusion (Gading, 2020) "guidance and counseling teachers are advised to use cyber counseling as a counseling model to help students achieve independence and solve problems faced because cyber counseling has several advantages when compared to face-to-face counseling".

3.3 UPI P2T (Center for Applied Psychology) Website

UPI Applied Psychology Center (P2T UPI) is an independent institution under the auspices of the UPI Department of Psychology which was formed to provide psychological practices and services to the wider community. P2T UPI develops by having three functions, namely as a data center and test tools compiled by the academic community of the Department of Psychology, Faculty of Education, UPI, research and service center, and applied psychology service center. Forms of service that have been provided include free counseling services on the anniversary agenda of the Department of Psychology, cooperation with the Ministry of Social Affairs of the Government of the Republic of Indonesia to foster Jayagiri Village residents. The applied psychology services owned by P2T UPI, namely psychological examination services, assessment, counseling, and psychotherapy individually and classically.

The services provided by P2T UPI are as follows:

- a. Individual
 1. Counseling and therapy
 2. individualized psychological test
- b. Family
 1. Family counseling
 2. Group therapy
- c. School
 1. Aim for majors for students
 2. Aim for interests and talents
 3. Assistance for special education students (CI)
 4. Parenting: parental schooling and behavior modification)
- d. Company
 1. Employee recruitment and selection
 2. Assessment
 3. Employee competency mapping
 4. Self-mapping and development

In this article, researchers want to develop the P2T UPI website into a mobile application, especially in individual services.

3.4 P2T UPI Website Development Design Based on Mobile Application

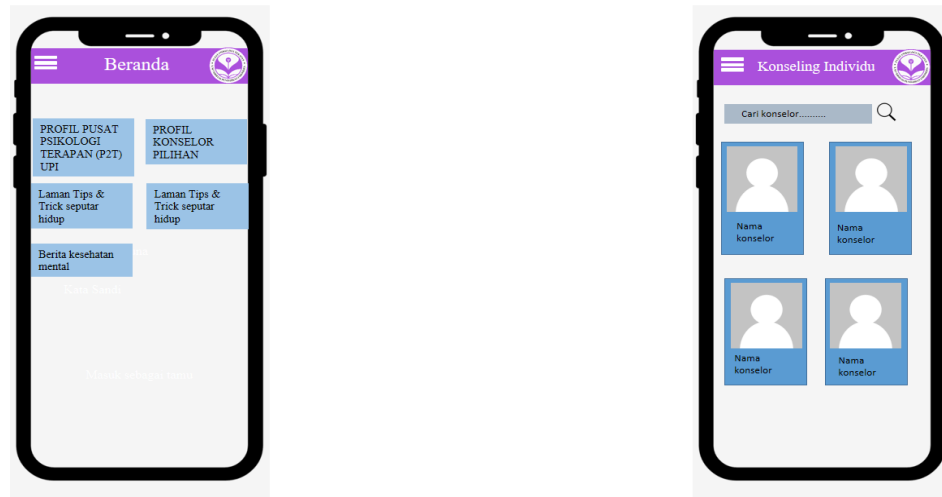


FIGURE 9. P2T UPI APPLICATION DESIGN

Based on research through google forms conducted by researchers, 86.1% of respondents agreed that the development of the P2T UPI application would be able to improve student mental health with the service features provided. Researchers have made a mobile application-based P2T UPI website development design, as follows

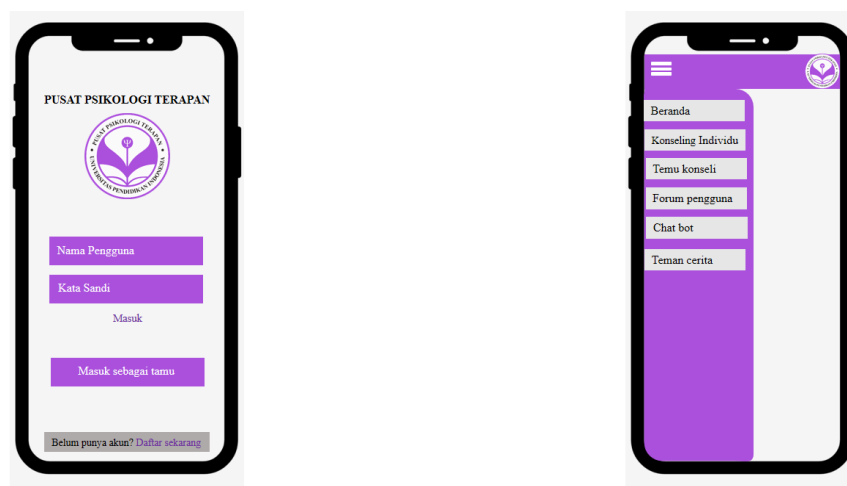


FIGURE 10. DESIGN OF HOMEPAGE AND INDIVIDUAL COUNSELING FEATURES OF P2T UPI APPLICATION

On the initial page will be presented with an account log in display. Users can use some features without having an account by pressing the 'log in as guest' button but to access all the features provided, users are required to have an account in the P2T UPI application. This application has six main features, namely the homepage, individual counseling, counselor meetings, user forums, chat bots, and story friends.

On the home page, users are presented with various interesting menu offers. Starting from the UPI P2T profile, selected counselor profiles, tips & tricks or life hacks pages to help daily life, and mental health news that will provide new knowledge to users regarding mental health issues so that users are more literate in mental health information.

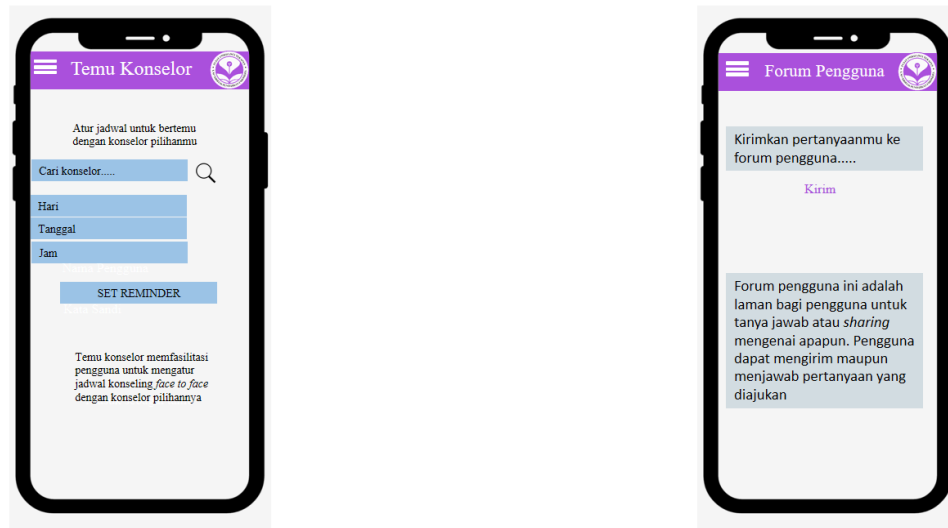


FIGURE 11. DESIGN OF COUNSELOR MEETING FEATURE AND USER FORUM OF P2T UPI APPLICATION

The individual counseling feature will guide users on the stages of conducting a counseling session, selecting a counselor, up to the stage of chat or video call with the counselor to conduct a counseling session. Users can choose which counselor they want to contact. This counseling feature requires a registration fee to conduct a counseling session. However, other interesting features can still be accessed for free.

The next interesting feature is the counselor meeting and user forum. The counselor meeting feature can create a face to face counseling schedule according to the agreement of the client and counselor. There is a search feature that makes it easy for users to see which counselors have suitable schedules to conduct counseling sessions. This feature will also remind users on the scheduled counseling day through text and audio notifications. User forum is a feature that allows P2T UPI application users to share any information. Here users are free to ask questions to the public or only to certain users. Users are also free to answer questions in the forum. The application admin will monitor the security of this forum to prevent the spread of crime or hoax news.

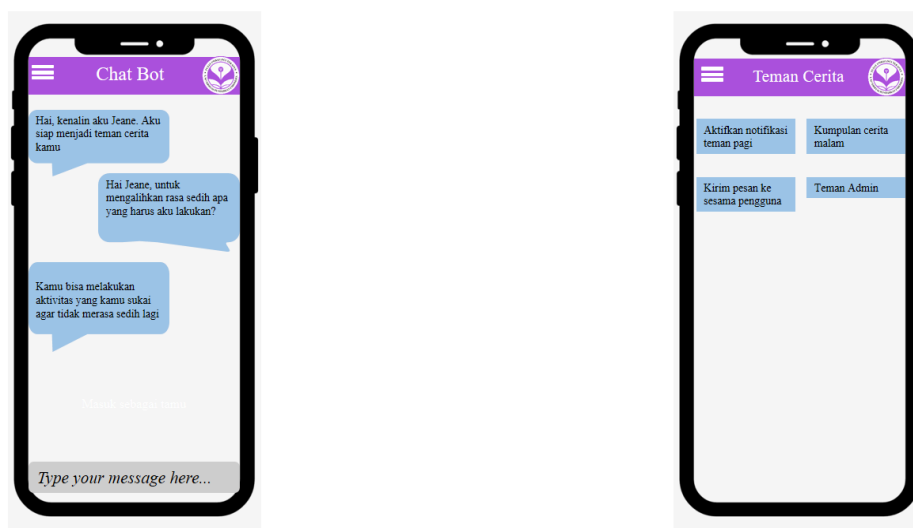


FIGURE 12. DESIGN OF CHAT BOT AND STORY BUDDY FEATURES

Chat bot is a chat feature with a robot named Jeanne (inspired by one of Jean Piaget's psychological figures). This bot has been set up in such a way that it can answer user messages according to the direction of the conversation and still spread positive messages in the reply.

Teman cerita has many menus for users. The activated morning friend notification menu will make users get messages or notifications of positive and motivational messages in the morning. Researchers hope that this menu can make users feel like they have a close friend even if only from an application. Then, the night story collection menu contains stories that can be read if the user has difficulty falling asleep. The application manager will update the story every night at 20.00 so that users get a new story every day. Next, the menu sends messages to fellow users. This menu is similar to the direct message feature on applications such as Instagram, Twitter, and Messenger. Users are expected to make new friends through this application. Finally there is the admin friend menu, which is a chat feature with the application manager. Users can send messages with the application manager such as telling their life stories, asking for opinions, and other positive things. The application manager will ensure that the user's profile and secrets are safe so that users do not need to worry about the contents of their messages or biodata being spread because this application will comply with the principle of confidentiality in counseling as said by Sukarti (Prasetya, 2017) the principle of confidentiality is a key principle in providing counseling services.

Based on the research conducted, respondents responded positively to the design of this application. It can be seen from the respondent's interest scale as follows; 36 respondents chose different scales in their interest in downloading the application. A total of 2 people (5.6%) chose scale 2, 5 people (13.9%) chose scale 3, 18 people (50%) chose scale 4, and 11 people (30.6%) chose scale 5 or very interested. Respondents gave a positive response to the design of this P2T UPI website application.

Based on the results of the research and discussion above, it can be concluded that the P2T UPI mobile-based application has an effect on student mental health. The estimated effectiveness of this application in helping maintain mental health is evidenced by data

from previous research, namely 86.1% of respondents agreed that the development of the P2T UPI application would be able to improve student mental health with the service features provided. These features also affect student interest in using the P2T UPI application. It can be seen from the research data that as many as 5.6% of respondents chose scale 2, 13.9% chose scale 3, 50% chose scale 4, and 30.6% chose scale 5 or were very interested. Those who choose a scale range of 3 and 2 think that the features that support must require more money for the service.

The developments in this study must be used as a reference for the P2T UPI website manager, Universitas Pendidikan Indonesia, so that its use becomes more effective and is able to attract students to use the available services.

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