ABSTRACT

The purpose of this study is to develop cyber counseling to increase student self-confidence. The research design used Research and Development with the ADDIE model. R & D designed using the ADDIE model uses 5 stages: 1. Analysis, 2. Design, 3. Development, 4. Implementation and 5. Evaluation and in the end has a final product in the form of Cyber counseling Cognitive Behavior. The results of the development and trials of cyber-counseling can be seen from the results of the pre-test and post-test that have been done, which show that there is a difference between before and after treatment. The development of cyber counseling to increase students' self-confidence in schools can be seen from the treatment given by counselors in building relationships and fostering new perceptions about counseling activities through individual counseling.

Keyword: Development, Cyber counseling, Self-Confidence, Covid 19 Pandemic

I. INTRODUCTION

Change occurs because of a mismatch that results in incompatibility in society. The situation that occurs forces people to change the habits that exist in everyday life. This is due to the development of a virus that spreads rapidly throughout the world without exception. The corona virus first spread in the city of Wuhan, China in December 2019 and spread to other countries while Indonesia announced a Covid-19 case in March 2020. The death rate due to corona continues to increase causing Indonesia to enter a national emergency. The corona virus is easily infected by people with weak immunity, infants and especially children. It makes it so that it influences the changes and policy updates to be implemented. New policies also occurred in the world of education which changed learning, which was usually face-to-face, but because of the pandemic, learning was finally carried out online. This is in line with the government's recommendation to stay at home and social distancing must be followed by a change in face-to-face learning mode to online[1], [2].

Technology is considered for now as a substitute for the teacher-lecturer position in learning. This is not entirely true, the role of teacher-lecturer in carrying out learning is still very much needed (a humane process, and it is not true that technology always creates a dehumanization process). Learning with technology allows teachers to interact together with students in the classroom. Experienced teachers know that there is no single, fast solution to all variations in learning styles between lessons. Therefore, teachers who are experienced enough before using technology in the classroom, they need to recognize all the limitations both in terms of time and energy to integrate the potential of technology into the classroom.

Such efforts will be able to have a positive impact in order to improve student performance. In its development and application, many aspects of technology can be proposed to be used as a supporting reason for education in relation to improving the quality of Indonesia's national education. Technology is very capable and is struggled to become the main facilitator to even out education in the archipelago, because technology that relies on distance learning capabilities cannot be separated from. In order to reach difficult areas, it is hoped that this application can be done as soon as possible in Indonesia. The COVID-19 pandemic is the first and foremost health crisis in

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Several studies on cyber counseling have been conducted before. Mishna et al. [13] in their study explained the students' confidence and interest in participating in counseling activities are varied [18], [19]; Some are active and enthusiastic about the counseling programs offered by the school, some are not. This interest relates to situations where students think, care about knowing, have a sense of pleasure, and a willingness to learn and carry out counseling: (1) ease of accessibility if the counselee has problems, no need to leave the house or go far to see a counselor; (2) Cyber counseling, especially in writing, allows the counselee to read back the counseling conversation at a later date when the counselee experiences the same problem such as; (3) cyberspace counseling can avoid the emergence of excessive emotions, which can be said to transfer emotions from counselee to counselor; (4) Virtual world counseling provides more comfort than face-to-face counseling so that it is easier for clients / counselees to be open in conversation. Then another study challenged the effectiveness of cyber counseling or online therapy and found that cyber counseling or online therapy in general was equally effective and efficient with face-to-face counseling [22]–[24]. Mallen et al., [25] in their research on the feasibility of cyber counseling by reviewing various counseling psychology literature and providing suggestions that online counseling can be the right service choice for some clients, especially those who are isolated and far away. One of the cyber-counseling media that can be used is through the website.

These changes provide opportunities as well as challenges for every institution, especially in the world of education. For example, the ability of students to utilize technology has become a new skill and need to form an effective and efficient education system[4]. In addition, Elleven and Allen [5] in their research stated that the use of growing and developing technology will open up great opportunities for counselors to provide online counseling services as an alternative to conventional counseling. Therefore, it is inevitable that the alignment of educational needs with the use and development of information technology that has developed over the years becomes absolute and non-negotiable. Therefore, it will be very relevant if technology is needed in the implementation of guidance and counseling in the current era, especially in facing the pandemic era and the new normal era.

The importance of providing technology-based guidance and counseling services is not only based on the development of time and space, but also the maximization of guidance and counseling services in schools. This is in line with Gibson's statement that counselors must be competent in using computers, and realize that the times can have major implications for their practice [6], [7]. Cyber counseling gives the counselor the flexibility to serve the counselee in a more time-efficient, independent, and more practical way because it can be done anywhere and anytime without meeting in person[8], [9]. In addition, the implementation of cyber counseling not only facilitates counselees to reveal their personal problems but also improves access to counseling services for people living in remote areas, persons with disabilities, people who are too shy for face-to-face counseling, busy people with limitations, time, and people who worry about being stigmatized as problematic [10], [11]. Cyber counseling is very appropriate to be applied in an era of a pandemic like this, where physical restrictions are very important to prevent the spread of Covid 19.

Cyber counseling, or e-counseling, as defined by the National Council for Certified Counselors, is the practice of professional counseling and information delivery that occurs when clients and counselors are in separate or remote places and utilize electronic media such as the internet to communicate [12], [13]. Cyber counseling becomes online counseling because it uses the internet as the main channel in two-way communication between counselors and clients [5], [14]–[16]. In addition, cyber counseling is a new method in the world of counseling to help people solve the problems they face [14], [17]. It can be concluded that cyber counseling is counseling carried out by counselors and counselees in helping counselees to develop themselves and solve problems experienced by utilizing an internet connection as a counseling medium. Internet connection can be in the form of a website, email, face book, blog, whatsapp, line, twitter, teleconference, and other forms of internet applications.

Students' confidence and interest in participating in counseling activities are varied [18], [19]; Some are active and enthusiastic about the counseling programs offered by the school, some are not. This interest relates to situations where students think, care about knowing, have a sense of pleasure, and a willingness to learn and carry out guidance and counseling services provided by schools [4], [20], [21]. Therefore, the success of guidance and counseling services in schools will be maximized if students have high self-confidence and interest in counseling activities at school.

Several studies on cyber counseling have been conducted before. Mishna et al. [13] in their study explained the benefits of cyber counseling and found that cyber counseling has advantages when compared to face-to-face counseling: (1) ease of accessibility if the counselee has problems, no need to leave the house or go far to see a counselor; (2) Cyber counseling, especially in writing, allows the counselee to read back the counseling conversation at a later date when the counselee experiences the same problem such as; (3) cyberspace counseling can avoid the emergence of excessive emotions, which can be said to transfer emotions from counselee to counselor; (4) Virtual world counseling provides more comfort than face-to-face counseling so that it is easier for clients / counselees to be open in conversation. Then another study challenged the effectiveness of cyber counseling or online therapy and found that cyber counseling or online therapy in general was equally effective and efficient with face-to-face counseling [22]–[24]. Mallen et al., [25] in their research on the feasibility of cyber counseling by reviewing various counseling psychology literature and providing suggestions that online counseling can be the right service choice for some clients, especially those who are isolated and far away. One of the cyber-counseling media that can be used is through the website.

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Cyber Counseling through website media is an appropriate counseling alternative to be used as a long-distance counseling interface, and is limited by face-to-face access. Cyber Counseling or online counseling is a therapeutic intervention transmission using the World Wide Web using computers as a communication medium between professional counselors and clients and is supported by the use of internet networks [20], [21], [25], [26].

The implementation of Cyber Counseling has the same process as regular face-to-face counseling and is tailored to the needs in the field [15], [17], [27]Cyber counseling certainly needs to be packaged in such a way as to follow the ethics of implementing Cyber Counseling [28], [29]. In addition, the principle of implementing Cyber Counseling is the main thing that needs to be considered so that services in schools can be packaged with ethics that reflect the professionalism of the counselor and academic aspects which will later build a better academic scientific culture.

Web-mediated online counseling in counseling situations provides significant benefits, namely the possibility of self-disclosure online. In addition, this two-way interaction in cyber can provide extensive facilities and personal freedom, which frees clients to express themselves [30]–[32]. The concept of freedom of expression and unlimited self-disclosure in online communication mediated by the Web makes students feel comfortable and free to raise any issues so that it can be a good stimulus for them as well as increase students' confidence and interest in school counseling activities.

The purpose of this study is to develop cyber counseling to increase student self-confidence. The use of technology-based media by schools certainly provides its own benefits for the school itself. One of them is that the major changes in information technology that occur in a global environment require the development of an education system that is open and accessible to all parties in need and is not limited to age, gender, location, and socioeconomic conditions, especially in terms of counseling services[33], [34].

II. RESEARCH DESIGN

Research and development (R&D) is a scientific method in researching, designing and producing, developing and testing the validity of products that have been produced according to the objective not to formulate or test theories but to develop effective products to use [35], [36]. R&D is used to produce a product and test the effectiveness of certain products, the steps taken to develop new products or improve the products used are also taking into account the validation of the product [37]. This R&D will develop cyber-counseling cognitive behavior to overcome academic anxiety. R&D designed using the ADDIE model uses 5 stages: 1. Analysis, 2. Design, 3. Development, 4. Implementation and 5. Evaluation and in the end has a final product in the form of cyber counseling.

![The ADDIE Model Implementation Stage](image)

Research and Development with the ADDIE model is in principle suitable and effective for developing learning and educational products [38] in general, especially in the field of counseling, the ADDIE model is used in the development of models and products in counseling. ADDIE was chosen with various considerations both theoretically and conceptually in the field.
III. RESULT AND DISCUSSION

The results of the pre-test and post-test students’ self-confidence and interest are presented in Table 1. Based on Table 1, students’ self-confidence and interest increased after receiving Cyber-Based Counseling. This can be seen from the pre-test average score of 87, and post-test 109.98. The number increased to 22.98. Therefore, these results confirm that Cyber Counseling can increase students' self-confidence. ($Z = -2.226$ $p = <0.05$).

<table>
<thead>
<tr>
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<th>Pre-test</th>
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<td>Mean</td>
<td>87</td>
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<tr>
<td>SD</td>
<td>3.48</td>
<td>6.54</td>
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<tr>
<td>Min</td>
<td>81</td>
<td>97</td>
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<tr>
<td>Max</td>
<td>92</td>
<td>120</td>
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<tr>
<td>Z</td>
<td>-2.22</td>
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Cyber Counseling cognitive behavior is designed using Android Studio Adobe XD, and Corel Draw and website hosting. And it can be accessed on the page http://cbccpandawa5.com/ and the cyber counseling application has several features where these features are the stages in the implementation of cyber counseling.

**TABEL 2. Features in The Cyber Counseling Application**

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<tr>
<th>CYBERCOUNSELING FEATURES</th>
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<td>Before starting cyber counseling, the counselee fills the self-confidence scale pretest to determine the level of self-confidence they have. And the results can be known immediately after completing all the contents on that scale</td>
<td>The First and start page of <a href="http://cbccpandawa5.com/">http://cbccpandawa5.com/</a></td>
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The next stage is a counselor chat to choose who the counselor is to be, and then choose a counseling service. There are two counseling services, namely:
- Face to face counseling
- Cyber counseling
After selecting the counseling service, go to the schedule contract feature. This schedule contract contains when and where the counseling process will be carried out. If cyber counseling is chosen, it will directly focus on the google meet link for the counseling process.

After the counseling process is complete, clients can open this feature to find out the results of the counseling. If the counselee feel it is enough and can solve the problem, then proceed with the last feature, namely the post test.

The client fills in the post test and knows the results firsthand. So that it can directly compare the results of the pre-test, post-test and counseling reports.

The development of cyber counseling to increase students' self-confidence in schools can be seen from the treatment given by counselors in building relationships and fostering new perceptions about counseling activities through individual counseling. The principles of self-openness and freedom of expression through verbalizing feelings, thoughts and problems through cyber counseling support students' confidence and interest in counseling activities. This is in line with the theory [39], [40] in their research that online counseling methods can provide enormous benefits, namely online self-disclosure, anonymous interactions that provide extensive facilities and freedom and privacy, personality that frees clients to express themselves.
The presence of Cyber Counseling can answer research proposals\cite{41}, \cite{42} cyber counseling is an opportunity for counselors to provide alternative counseling besides conventional face-to-face counseling. In addition, cyber counseling will help shape future counseling to become more professional. This means that Cyber Counseling is an effective part of counseling services because of its function that allows activities that were not covered by traditional counseling services in the past. And cyber counseling is very appropriate to be applied at this time, where the Covid 19 pandemic that attacks the whole world has resulted in the community and all residents, especially students, limiting their activities outside the house. Cyber counseling is very helpful in meeting with counselors and getting help in solving problems virtually.

Cyber counseling as an alternative to help solve problems is the process of providing psychological assistance from a professional counselor to a counselee who has a problem and is unable to solve the problem on his own, through virtual counseling assistance as an option of several possible counseling services that exist to seek problem solving owned. In facing the Covid 19 pandemic and facing the new normal era, there are many problems to be faced, and not all problems can be faced alone but require help from professional people. So that cyber counseling is an innovation that is absolutely necessary.

Until now online counseling has the same positive and balanced impact as face-to-face counseling and is able to provide replicas and provide the same facilities as face-to-face counseling \cite{8}, \cite{39}, \cite{43}, \cite{44}. It is stated that strong evidence is needed to build the belief that cyber counseling has better effectiveness, unique media, and provides the same facilities to everyone. The above studies study the advantages and effectiveness of cyber counseling to help counselees develop themselves and overcome problems they are experiencing. Web-based cyber counseling increases student interest in participating in counseling activities\cite{17}, \cite{24}, \cite{45}. In line with the research above, the development of cyber counseling cognitive behavior becomes a prototype of cyber counseling that uses one of the approaches in counseling, namely cognitive behavior and simultaneously analyzes students' self-confidence directly in one cyber counseling application. This research and development analyze the acceptance and effectiveness of the empirical cyber counseling model.

In addition, Cyber Counseling supports the relevance of counseling theory regarding the need to provide the comfort needed by the counselee when facing a problem that cannot be solved face-to-face. Another idea also suggests that cyber counseling is also a flexible and adaptable resource with the potential to complement and support other types of interventions and should not be made as a substitute for face-to-face interventions. According to Salleh et al. \cite{12}, \cite{34}, there are five main categories in cyber counseling (CC), namely: (1) process, (2) skills, (3) approach, (4) ethics, and (5) limitation of cyber counseling. Each category has its own stages. Meanwhile, as an educational service model, one of the prototypes of the cyber counseling model can refer to the education model as a system.

Based on this, of course, it will create a description of innovative service activities and provide encouragement and stimulation for students to get to know and be closer to counseling activities so that these activities are effective in increasing student confidence and interest in schools. Similar to the statement above, the research results show that the way individuals interact with electronic sources as a means of communication is the same as the way they interact with other people \cite{45}, \cite{46}. Furthermore, in the context of individual interactions, online self-disclosure is more likely than face-to-face \cite{40}, \cite{47}. The presence of cyber-counseling encourages students as well as being a stimulus for their first efforts to get to know and get closer to cyber-based counseling so that it can increase access to face-to-face counseling activities in schools.

Cyber Counseling has been able to help develop a broader counseling service where the service can not only be done face-to-face, but can also be implemented with the help of internet network technology. This means that Cyber Counseling has several advantages, namely (1) it can keep a permanent record of the counseling process. This will be of benefit to clients, counselors, and counselor supervisors, (2) help individuals reflect on their experiences with the art of typing, (3) clients can express their feelings in themselves *present conditions. They can also immediately type and send email when they experience it. depression or panic without having to wait until the next counseling session \cite{48}. Furthermore, Online Counseling is also very suitable to be given to clients who are (1) geographically isolated, (2) have physical limitations, (3) are not want to do counseling, and (4) prefer to write rather than speak \cite{49}. Development of cyber counseling in research is very appropriate because facing the Covid 19 pandemic, maintaining distance and physical restrictions are prioritized to prevent the spread of covid 19. So that the counseling process continues effectively and efficiently through cyber without meeting in person.
Cyber counseling is a form of counselor's responsibility in facing the professional counselor profession. For this reason, counselors need to adapt and prepare themselves well in mastering information and communication technology [9], [14] in carrying out guidance and counseling services. This is no longer an option, but an obligation for the counselor to do, considering that today's society is carrying out its activities based on information and communication technology.

In this era, the interaction and communication between two parties is faster, easier and more efficient. Many people find it easier to communicate their thoughts and feelings when they are not fully observed. Cyber counselors are in a unique position in the therapeutic service process. Because, in a separate situation, it is hoped that the counselee can read the psychological symptoms. For that, a mature skill set from cyber counselors is needed when implementing online services [24], [44], [50]. The counselor should be guided by a service plan that combines empathic abilities with the media used. The effectiveness of cyber counseling can be proven by the change in behavior shown by the counselee through acceptance of the counselor. Cyber counselors have the ability to not only deal with important events in the counselee's life when they occur online, but also must be able to understand the counselee's words (in writing), encourage the use of creative expressions (for example, use font colors and graphics), combine experiences during services (for example, email, and chat or telephone), as well as providing support and information resources that are widely available online[51], [52]. For this reason, the counselor only has many strategies to assist the counselee in self-discovery, self-healing, and the achievement of the expected counseling goals.

Management of cyber counseling requires a counselor to have a set of technical knowledge related to mastery of the internet and all related tools therein. In addition, a counselor also needs to master the norms and ethics in the use of cyber counseling. This is important, because it deals directly with aspects of data confidentiality and the history of the online counseling service process. Cyber counseling is able to reach a wider range of counseling service settings, which means that cyber counseling can benefit counselors and counselees in terms of time and financially, because the counseling process is not limited by time and space, when and where the counseling process can be carried out.

IV. CONCLUSION

This study develops cyber counseling to increase students' self-confidence. The impact of cyber counseling can be seen from the results of the pre-test and post-test that have been done, which show that there is a difference between before and after the treatment. In this research, cyber counseling services are carried out in an individual format. For further research, researchers are advised to conduct group online counseling to clients who have similar problems. Further researchers can also develop cyber counseling by collaborating with approaches and techniques in counseling. In addition, it can also be developed and tested for its effectiveness on other appropriate psychological variables. So that the application of cyber counseling at a broader level can make counseling services more effective and efficient in reaching students who have difficulty participating in counseling activities.

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