Application of Counselling Teachers by Optimizing WhatsApp

Alexius Endy Budianto¹, Nur Hidayah², Abdul Aziz³
¹Department of Informatic, Kanjuruhan University Malang, Indonesia
²Department of Education, Universitas Negeri Malang
³Department of Informatic, Kanjuruhan University Malang, Indonesia

Abstract. This long-term study aims to make it easier for teachers to describe one model of counseling services. Teachers are required to be able to provide good and best service through the process of counseling guidance. The development of Information and Communication Technology (ICT) can be utilized in cyber counseling and handling of various services, for example, almost all students have mobile phones which on average can already be utilized to build the system by optimizing whatsapp based mobile computing capable of providing e-counseling services and saving time and cost.

Service Guidance and counseling is not always face to face. There is an easier service that is with cyber counseling that allows counseling not feel embarrassed or awkward that can be done anytime and anywhere. Utilization of Information and Communication Technology (ICT) in contemporary times become very relevant when applied in guidance and counseling activities. Therefore, it is expected to also increase the researcher both skill and competence that will boost the institution where the researchers work, namely: Kanjuruhan University Malang.

Keywords: E-Counseling, Cyber Counseling, WhatsApp, Mobile Computing.

I. Introduction

In this study aims to help teachers guidance and counseling (BK) in order to carry out their duties and responsibilities optimally. Counseling guidance both at school and outside the school is required to have insight, knowledge, skills and values and attitudes in achieving the goals of counseling services. The impact on solving the problem must be reoriented. We no longer have to think about how to solve problems (problem solving), but how to recognize potentials and anticipate problems with this potential. This is continuous with the reorientation of current guidance and counseling (BK). That the concentration of BK is currently not on the problems of students that must be resolved, but how to recognize the potential and use preventive-developmental strategies to help students embody their potential [25] It is not surprising that counseling disciplines have been influenced by technological developments. The more technology is increasing, the more professionals who help need to utilize new technology. The internet is a new technology that influences the field of counseling psychology.[4] Along with the explosion of the cyber world for connection, learning and entertainment, there is a phenomenal rapid growth in demand by individuals of all ages for the world of counseling or e-therapy [9]. Cyber counseling or e-Therapy is considered a realistic way of responding to mental health services requests, a demand that is expected to increase exponentially in the coming years. [3] Besides that, facilities and infrastructure are also needed, for example the availability of counseling rooms, books, visual media (recording counseling) and instrument application programs that are used to assist counseling guidance in schools as a model describing counseling services namely e-counseling and utilizing Information Technology in BK. Therefore it is very important to prepare students for social workers to utilize competently technology in their practice. [8] According to Statsky (2016: 565) said that "A smartphone is a mobile phone that performs many of the functional of a computer the device operates by touchscreen [23]. That is a smartphone (smart phone) is a cellphone that functions a lot from a computer, the device operates with touch screen ". [22] In this study we will optimize whatsapp based on mobile computing because almost all vocational high school students have mobile phones, so the teacher can do such counseling and guidance services not always face to face or face to face. There are easier services, namely cyber counseling that allows counseling to not feel shy or awkward that can be done anytime and anywhere. The use of Information and Communication Technology (ICT) in contemporary times is very relevant when applied in counseling and guidance activities. The latest study shows that the most popular instant messenger is WhatsApp. [24] Therefore, this is expected to be effective to help teachers and individuals optimally develop and adapt to the progress of the times without being eroded by negative influences.

1.1. Definition of Information and Communication Technologies (ICT)

According to Fitrihana (2007), ICT is a system or technology that can reduce the limits of space and...
time to retrieve, move, analyze, present, store and convey data information into information. [12] And in the context of learning, ICT includes all things related to the use of computers to process information and as learning aids as well as a source of information for teachers and students.

1.2. Understanding Cyber Counseling

a. Cyber Counseling

Moh. Surya (2006) suggests that in line with the development of computer technology, the interaction between counselors and clients is not only done through face-to-face relationships but can also be done through virtual (virtual) relationships through the internet in the form of "cyber counseling". This guidance and counseling service is one of the innovative counseling service models in an effort to show practical services and can be done anywhere as long as there is a connection or connected to the internet. [13]

Cyber Counseling is a virtual guidance and counseling strategy or counseling that takes place through the help of an internet connection. In this case the counseling process takes place through the internet in the form of web sites, e-mail, facebook, videoconferencing (Yahoo massanger) and other innovative ideas. The counseling process using cyber counseling or virtual counseling means that the counselor and the client are not physically present in the same time and space.[25]

b. The concept of Cyber Counseling

Cyber word is a term from the internet. The term of the internet is certainly no stranger to our ears, because since its emergence in 1969 and experienced very rapid development in 1993/1994, the presence of the internet has brought significant changes to various changes in aspects of human life, especially in terms of freedom to obtain and disseminate information without knowing geographical limit. There are currently three opinions that say that the internet is an abbreviation of International Network, Internetworking, and Interconnected Network. But some experts tend to call it Interconnected. Deeper the internet is a collection of world computer networks consisting of millions of small units, such as education networks, business networks, government networks, etc., which together provide information services such as e-mail, online chat, transfers file, and take care of each other.

Forms of guidance and counseling services that can be sought are consulting services, information services, individual counseling services, group counseling services, and other services that can be developed by each counselor and in accordance with counseling needs.

1.3. Android-based Smartphone Application

Understanding Smartphone Applications Based on Android

The application comes from the word application which means application, application, usage. Understanding the application is a ready-to-use program that can be used to execute the commands of the user with the aim of getting more accurate results in accordance with the purpose of making the application. [20] To be able to use the Android application, the user must first download and install the file with the extension .apk, this facility can be accessed through an application called Play Store which is available on every Android phone.[19]

1.4 WhatsApp

WhatsApp is an instant messaging application that allows us to send files, messages, pictures, videos, photos and online chat like Blackberry Massenger. But WhatsApp is more attractive on Iphone users, like what WhatsApp first appeared for the Apple iPhone. Along with the development of whatsapp, now this application is available for the Android version, Windows Phone Blackberry and Symbian. Whatsapp, is also one of the best-selling applications downloaded worldwide, especially for Smartphone user. [5,18,16]

Descriptive Method

Descriptive method can be interpreted as a problem-solving procedure that is investigated by describing the state of the subject or object in the study can be in the form of people, institutions, communities and others who are currently based on facts that appear or are.

According to Sugiyono [26] states that the descriptive method is a method used to describe or analyze a research result but is not used to make broader conclusions Characteristics of descriptive methods .There are basic features of the descriptive method, including:

1. Focusing on the problems that exist at the time the research was conducted or actual problems
2. Describe the facts about the issues being investigated as they are, accompanied by balanced rational interpretations.
3. The work of the researcher not only gives a picture of the phenomena, but also explains the relationship, tests the hypothesis, makes predictions, and gets the meaning and implications of the problem.

DOI: 10.9790/0661-2105017379 www.iosrjournals.org 74 | Page
Criteria of Descriptive Methods Nazir [20] in the book Research Methods, there are two main criteria in
descriptive research methods, namely general criteria and special criteria. General Criteria for Descriptive
Research General criteria for research with descriptive methods are:
a) Problems that are formulated must be appropriate, have scientific value and are not too broad
b) Research objectives must be stated clearly and not too generically
c) The data used must be reliable facts and not opinions
d) The standards used to make comparisons must have validity
e) There must be a clear description of the place and time of the study
f) The results of the research must contain details that are used both in gathering data and in analyzing the
data as well as the literature studies conducted. The logical deduction must be clearly related to the
theoretical framework used, if a theoretical framework for it has been developed
Specific Research Methods Descriptive Method Specific criteria of research with descriptive methods are:

The principles or data used are expressed in value
b) Facts or principles used are about status issues
c) The nature of the study is ex post facto, therefore there is no control over variables, and researchers do
not make arrangements or manipulation of variables. Variables are seen as they are.

General Steps In Descriptive Methods In brief, it can be seen that there are several steps in the descriptive
research method, namely 1) Identifying the existence of significant problems to be solved through
descriptive methods; 2) Limiting and formulating problems clearly; 3) Determine research objectives and
benefits; 4) conducting literature studies relating to problems; 5) determine the framework of thinking and
research questions and or research hypotheses; 6) design research methods to be used including
determining populations, samples, sampling techniques, data collection instruments, and analyzing data; 7)
collecting, organizing, and analyzing data using relevant statistical techniques; and 8) make a research
report
To be more detailed, Nazir [20] revealed there are various steps that are often followed are as follows:
1. Select and formulate the problem that requires the conception of the usefulness of the problem and can
be investigated with existing sources
2. Determine the purpose of the research to be done. The purpose of the research must be consistent with
the formulation and definition of the problem
3. Provide limitations of the area or scope or the extent to which the descriptive research will be carried
out. This includes the geographical area where the research will be carried out, chronological
boundaries, measurements about the shallows and how intact the research area will be reached
4. In the field of science that already has strong theories, it is necessary to formulate a theoretical
framework or conceptual framework which is then derived in the form of hypotheses to be verified. For
social science that has developed well, the framework of analysis can be elaborated in the forms of
mathematical models
5. Tracing the sources of literature that has to do with the problem you want to solve
6. Formulate the hypotheses to be tested, both explicitly and implicitly
7. Do field work to collect data, use data collection techniques that are suitable for research
8. Making tabulations and statistical analysis carried out on the data that has been collected. Reduce the
use of statistics to the limits that can be done with equivalent units of measurement
9. Provide an interpretation of the results in relation to the social conditions that are to be investigated as
well as from the data obtained as well as specific references to the problem to be solved
10. Conduct generalizations and deductions from the findings and hypotheses to be tested. Give
recommendations for policies that can be drawn from research
11. Make research reports in a scientific manner

II. Research Methods
The method used in this research is descriptive method, which aims to obtain an overview of the
research object. With this method aims to get the exact characteristics, circumstances, symptoms of a group
[15]. With this method it is expected to obtain a picture of student responses to the implementation of student
counseling services by optimizing whatsapp (WA) in Vocational High Schools (SMK) in Malang Regency.
The population used in this study were all high school / vocational high school students in Malang,
which amounted to 28,696 students. Of this amount we take for example the SMK Brantas Karang Kates Jl.
Lolaras 14 Karangkates Sumberpucung with the number of students 650, the population is quite large because it
is above 500 students, the researchers took 50% of the population to be sampled. The samples used in this study
were determined by random sampling. By taking odd numbered numbers in order of total population. After
random sampling data is obtained, it can be seen in the following table.

DOI: 10.9790/0661-2105017379 www.iosrjournals.org 75 | Page
Application of Counselling Teachers by Optimizing WhatsApp

<table>
<thead>
<tr>
<th>Table. Counseling Services by optimizing whatsapp (WA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>----</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
</tbody>
</table>

Source: 2017 processed data

The data collection tool used was a questionnaire about students' responses to the implementation of personal counseling guidance in each department which consisted of two choices (yes / no). To determine the results of students' responses to the implementation of personal counseling guidance. Then use statistical analysis with presentation techniques as follows:

<table>
<thead>
<tr>
<th>NO</th>
<th>PERCENTAGE</th>
<th>DISCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>81 - 100</td>
<td>VERYWELL</td>
</tr>
<tr>
<td>2</td>
<td>61 - 80</td>
<td>WELL</td>
</tr>
<tr>
<td>3</td>
<td>41 – 60</td>
<td>ENOUGHGOOD</td>
</tr>
<tr>
<td>4</td>
<td>21 - 40</td>
<td>LESS</td>
</tr>
<tr>
<td>5</td>
<td>0 – 20</td>
<td>LESS GOOD</td>
</tr>
</tbody>
</table>

To find the percentage of items selected by students, researchers use the following percentage techniques:

\[
P = \frac{F}{N} \times 100\% 
\]

Description:

\[
P = \text{Presentation sought} \\
F = \text{Frequency of answers} \\
N = \text{Number of Samples}
\]

III. Research Result

When viewed from the students' responses to the implementation of personal counseling guidance by optimizing whatsapp based on the aspects measured, the results are as follows:

1. Students' responses to the implementation of personal counseling guidance by optimizing whatsapp in aspects of placement in the classroom based on physical and personal conditions students get the percentage (61.83%) classified in the good category. This proves that the student's personal counseling guidance service has been implemented well. Even so there are still some that have not been reached by services, which is equal to (31.17%)

2. Student responses to the implementation of placement and distribution in the guidance of personal counseling by optimizing whatsapp on aspects of placement and distribution of skills and arts in accordance with the talents and interests of students, then the percentage obtained (66.30%), which is included in both categories. But there are still (33.70%) students who still do not get the service.

3. Student responses to placement and channeling services in personal counseling guidance by optimizing whatsapp in aspects of extracurricular activities that can be used as habits of religious attitudes, talents and interests. The expected response of respondents is (62.36%), which belongs to the good category. But there are still (37.64%) who still do not get the service.

4. Student responses to applications that are tested to meet the needs of personal counseling guidance by optimizing whatsapp to be more effective and efficient is both in terms of needs and speed of communication of guidance as shown below.
Figure 1: Counseling Guidance Application Main Menu

Figure 2: choices according to personal needs Menu

Figure 3: Results of counseling from the application and subsequent communication with the guidance counseling teacher through whatsapp (WA).
5. Student responses to the service needs of counseling guidance as outlined in the form of graphic images.

![Diagram of Student Responses to Personal Counseling Guidance](image)

**Figure 4.** List of Student Responses to Personal Counseling Guidance

### IV. Results and Discussion

Based on the research that has been done, there are several results that can be taken:

- a) Researchers have been able to build a cyber counseling information system that is very helpful as a teacher's guidance in conducting counseling to students.
- b) The application made can be used to support the teacher in making decisions in counseling guidance on students' problem situations.
- c) This system is made very effective and efficient to solve problems that have been faced by teacher counseling teachers, so it is very helpful for students and parents of students.
- d) It is clear that optimizers of whatsapp is the basis of mobile computing is very important and very helpful for teachers in conducting counseling on the resolution of student problems and their solutions.

### V. Conclusion

By optimizing whatsapp based on mobile computing, researchers have been able to assist teachers in solving student counseling problems with 80% accuracy. It is expected that this system can use applications built by researchers so that it can help accuracy and speed in solving the problems of counseling students in every school.

### Acknowledgment

The author would like to thank the research funding agency: DIKTI and the Institute for Research and Community Service (LPPM) of Kanjuruhan University Malang.

### References


[6]. "Cloud computing for education in state technical University of Nizhny Novgorod". Proceedings of the 9th IFAC Symposium on Advances in Control Education (ACE '12) (pp. 418-420).


Application of Counselling Teachers by Optimizing WhatsApp


[15]. Kuncoro, Madrajad, 2001, Metode Kuantitatif (Teori dan Aplikasi untuk Bisnis dan Ekonomi), Unit Penerbit dan Percetakan AMP YKPN, Yogyakarta


[18]. Mathew, A.B., Madhu Kumar, S.D. Analysis of data management and query handling in social networks using NoSQL databases. International Conference on Advances in Computing, Communications and Informatics (ICACCI), 2015, pp. 800-806


[20]. M. nazir, 1988, Metode Penelitian, (Jakarta : ghalia Indonesia, 1988), hlm. 72-73


