



# Counseling Program Based on Android as Digital Consultation Media

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## ABSTRAK

*Bimbingan online dapat disediakan secara etis dan memiliki hasil yang efektif. Namun, konteks seputar aplikasi konseling online masih bisa diperdebatkan, dengan penelitian terbatas yang telah dilakukan dalam mengkaji penggunaan konseling online. Penelitian ini bertujuan untuk mengembangkan program bimbingan e-konseling berbasis android. Jenis penelitian ini yaitu pengembangan dengan menggunakan model pengembangan Alessi dan Trollip yang terdiri dari 3 tahapan yaitu perencanaan, perancangan, dan pengembangan. Subjek penelitian adalah 29 siswa and 1 orang guru/konselor. Metode pengumpulan data penelitian ini menggunakan angket, tes dan pedoman wawancara. Instrument pengumpulan data menggunakan lembar kuesioner. Teknik analisis data menggunakan analisis deskriptif kualitatif dan kuantitatif. Hasil penelitian yaitu media yang dikembangkan divalidasi oleh ahli media dan ahli materi, dengan hasil validasi oleh ahli materi diperoleh skor rata-rata 3,4 (sangat valid) dan oleh ahli media skor rata-rata 3,7 (sangat valid). Bimbingan E-Konseling melalui uji lapangan memenuhi kriteria sangat praktis. Dapat disimpulkan bahwa program bimbingan e-konseling memfasilitasi proses konsultasi bagi siswa dan guru/konselor, meningkatkan hasil belajar siswa. Implikasi kajian bahwa e-konseling dapat dimasukkan ke dalam layanan bimbingan dan konseling oleh konselor sekolah.*

## ABSTRACT

Online tutoring can be provided ethically and have effective results. However, the context surrounding the application of online counselling is debatable, with limited research having been conducted examining the use of online counselling. This study aims to develop an Android-based e-counselling guidance program. This type of research is created using the Alessi and Trollip development model, which consists of 3 stages: planning, design, and development. The research subjects were 29 students and 1 teacher/counsellor. This study's data collection methods use questionnaires, tests and interview guidelines. The data collection instrument uses a questionnaire sheet. Data analysis techniques using qualitative and quantitative descriptive analysis. The research results are that the developed media is validated by media experts and material experts, with the validation results obtained an average score of 3.4 (very valid) and an average score of 3.7 (very valid) by media experts. E-Counselling guidance through field tests meets very practical criteria. The e-counselling guidance program facilitates the consultation process for students and teachers/counsellors, improving student learning outcomes. The study implies that e-counselling can be included in guidance and counselling services by school counsellors.

## 1. INTRODUCTION

Technology continues to develop from time to time which is marked by the abundance of information to improve the quality of human life (Nurhikmah H et al., 2021; Sujarwo, 2020; Sukmawati et al., 2022). Almost all daily activities increase the use of technology, including education. Technology and education cannot be separated, educational activities are assisted by technology both through the internet, and android (Bahago, 2022; Benedict & Michael, 2022; Nurhikmah H; et al., 2021). The need to communicate and obtain information easily and quickly. With the presence of mobile phones or known as smartphones

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as the most popular communication tool, have revolutionized the way people communicate with one another, and became a necessity for everyone (Day et al., 2018; Nurhikmah et al., 2023).

The presence of smartphones with attractive features makes it easier for users to access a need. Smartphones are based on the reason that learning can be done anywhere and anytime. This android application can be accessed anytime and anywhere (school environment and outside of school) (Nurhikmah H et al., 2021; Sasabone et al., 2022). The rapid development and widespread use of the Internet to provide information and support communication has resulted in the creation of new forms of counseling (Lestari et al., 2022; Nurhikmah et al., 2021; S. Sujarwo et al., 2020; Veronica et al., 2020). One form of counseling that is widely available is the provision of counseling using a smartphone application (Imran et al., 2022; Waheed & Shafi, 2020).

Technology is growing rapidly in various circles of society as a solution in exchanging information, therefore the role of technology is very important (Paalim et al., 2022; Widiana, 2022). Problems that are so complex sometimes hinder the learning process. These problems arise from students related to personal, social, learning, and career. Moreover, the role of Guidance and Counseling is very important in overcoming the problems of these students, especially at this time the development of an increasing sophisticated era so that it can trigger problems for students (Beidoğlu et al., 2015; Fadkhurosi & Kusmaryani, 2022). Therefore, Guidance and Counseling services are needed by students, especially for junior high school students. Teachers who are not engaged in the field of study. However, it is engaged in developing student potential and dealing with problems faced by students.

The purpose of guidance and counseling services is the same as the goal of education, namely to create intelligent human beings, who are faithful and dedicated and virtuous, have knowledge and skills, physical and spiritual health, a strong and independent personality, and have a sense of social and national responsibility. Guidance and counseling are assistance services for students, both individually and in groups to be independent and develop optimally, in personal guidance, social guidance, study guidance and career guidance, based on applicable norms. Guidance and counseling services are an important element (Budianto et al., 2019c; Yasin et al., 2021). Therefore, the role of Guidance and Counseling teachers in conducting coaching and solving problems in schools is very important. The reality in the field is that teachers cannot reach all students because they are still using conventional methods, so that only major problems that have become the concern of many people can be covered by Guidance and Counseling teachers. Whereas before the emergence of problems from students, prevention should be done by conducting intense communication between students and teachers and providing information that can be read by students themselves.

Some previous studies revealed that there is a high need of "problem box e- counseling" Android-based application as a medium for students' problem disclosure at SMA Islam Athirah I Makassar (Alwi et al., 2019). This is supported by the other study stated that many students avoid to visit counselors despite their needs in counseling service. The e-Personal Counseling (e-PC) provides opportunity for the students to still be able to get counseling service (Amri et al., 2020). Professional e-counselors should be employed or available counselors should be taught in e-counseling (Benedict & Michael, 2022). The process of these services can be provided to a group of people rather than just one individual (Rezza Shafitri Anita, 2021).

In-depth understanding of students can help accuracy in providing assistance, the deeper understanding of students, the more appropriate assistance will be given. Guidance and counseling is a process of providing scientific assistance, having approaches, techniques and strategies as well as areas of service to help students achieve independence in their lives. One form of service provided is classical guidance services (Karagöz, 2021; Sujarwo Sujarwo et al., 2020; Sukmawati et al., 2022). Classical guidance is the part that has the largest portion in Guidance and Counseling services, and is an efficient service, especially in dealing with the problem of the ratio of the number of counselees and counselors (Imran et al., 2022; Karagöz, 2021; Sukmawati & Nensia, 2019). The scope of classical tutoring services can include study, personal, social, and career. In classical guidance services there will be a reciprocal relationship between guidance and counseling teachers and students or counselees. The reciprocal relationship is expected to occur educative interaction in the sense that it contains the meaning of educating and guiding (Rezza Shafitri Anita, 2021; Yurayat & Seechaliao, 2022).

Data from observations at SMP Negeri 19 Makassar shows that the school only has 3 BK teachers who must serve 1080 students or 1 BK teacher must serve 360 students with various characters, this is very difficult for teachers to be able to cover all student needs. For the number of students who do counseling at BK teachers an average of 5-10 students, with cases handled by BK teachers at schools including learning problems, attendance problems, fights, completion of assignments, and disciplinary problems. Therefore, the development of android-based counseling guidance media will make it easier for students and counselors to communicate, and most importantly be a consideration for counselors to provide treatment to students who have problems.

The objective of this study to develop android-based e-counseling guidance program that android application as an e-counseling program can conduct guidance and counseling. Android is the smartphone operating system with the most users (Hasyim et al., 2020; Muzaffar et al., 2022). Smartphone is a device that has the ability as a means of communication (sending messages and calling) as well as other capabilities, namely PDA (Personal Digital Assistant) which allows users to do work like on a personal computer (PC). Stat Counter data, shows that the market share of Android users in Q1 2020 was around 92.25% using the Android operating system. In addition, from the initial observations made by researchers at SMP Negeri 19 Makassar, the average student and parents use an Android-based smartphone as a communication tool.

## 2. METHOD

This study uses the Research and Development Method which is used to produce certain products, and tests the effectiveness of the products developed (Gall, M. D., Gall, J. P., & Borg, 2007). Research and development method is carried out based on needs analysis and to test the effectiveness of the product so that it can function properly. Research and development methods are also defined as a research method used to produce certain products, and test the effectiveness of these products (Sugiyono, 2018).

The design model used in developing the application is the Alessi and Trollip Model (1985). The selection of the Alessi and Trollip model is very suitable for developing an android-based counseling application for e-programming. This development model consists of 3 (three) stages, namely (1) the Planning Phase, (2) the Design Phase, and (3) the Development Phase. In the Alessi and Trollip development model, there are also 3 (three) Attributes used in the Alessi and Trollip model which help in product development so that it can be completed quickly but still within management and quality standards.

The instruments used to collect data in this development research are questionnaires, tests and interview guidelines. In this study, 2 types of questionnaires were used, namely questionnaires for validators and questionnaires for students. Validation questionnaires were submitted to media expert lecturers and material/content experts. Questionnaires were given to get input as evaluation material for the guidance and counseling e-program (Cohen et al., 2017; Creswell, 2018). The type of interview used by the researcher is an unstructured interview, namely a free interview where the researcher does not use interview guidelines that have been systematically and completely arranged for data collection (Mills, Geoffrey E.; Gay, 2019; Norman K. Denzin, 2018). In this interview, there was a free question and answer session between the interviewer and the respondent, but the research used the research objective as a guide. Documentation use in this study is in form of writing such as life history, biographies, and policies. Documentation in the form of images such as photos, videos, sketches and others (Leavy, 2017). Research results will be more credible if supported by documentation in the form of photos or videos during the research implementation process.

Data analysis was carried out to obtain an overview of the resulting product. This study uses two data analysis techniques, namely qualitative descriptive techniques and descriptive statistical analysis. Data analysis was conducted to determine the quality of the assessment instrument using the E-Counseling Guidance Program in terms of validity, practicality, and effectiveness. Qualitative descriptive analysis was used to process the data from the review by material experts and media experts. Descriptive Statistical Analysis is used to process the data obtained through a questionnaire in the form of a descriptive percentage. The analysis of the validity of the learning outcomes assessment instrument using the E-Counseling Guidance Program which was developed uses data obtained from assessments by material expert lecturers and media expert lecturers. Practical analysis is student and teacher response data were obtained from response questionnaires to the Android-based E-Counseling Guidance Program media in the test or learning evaluation process.

## 3. RESULT AND DISCUSSION

### Result

#### *Description of E-Counseling Program Development Needs*

The development of an Android-based E-counseling program was developed based on the needs of students and counselors based on the results of observations and interviews conducted by researchers. Based on the results of these observations and interviews, the researchers obtained the results that counselor teachers have not taken advantage of the high level of ownership of Android devices among students to serve as a medium for online guidance. In a situation like this, the direct/face-to-face guidance process cannot be maximized because it is hindered by social restrictions imposed by the school. The

application of learning from home creates obstacles or obstacles experienced by students, both in the application of learning at home or related to supporting the application of online learning.

Therefore, the need for media in the form of a counseling application that is able to accommodate student consultations by utilizing an Android-based smartphone that is tailored to the level of student needs. The counseling application aims as a medium to help counselor teachers and students communicate regarding problems and obstacles faced, both related to learning problems or personal problems that have the potential to interfere with the learning process.

### ***Description E-Counseling program Development Design***

Before the application is created and developed, first design the android application by determining the display form, font size, and determining the color according to the needs and characteristics of students so that it is interesting to use for learning. In addition, it is necessary to determine the menu bar that will be contained in the Android-based learning multimedia application.

After designing the concept map, the next step is to design a Flowchart and Storyboard. Flowchart aims to determine the flow / workflow of android application products so as to provide convenience in designing these products. The flowchart of the counseling e- program application that has been developed is in the Appendix. The storyboard or commonly called the sketch of the image is arranged sequentially according to post by post so that it helps arrange different posts to be directed. In the storyboard, plan the product design from the appearance, cover, material, both text and images. The storyboard design developed by the developer can be seen in the appendix.

### ***Results of Development of E-Counseling Programs***

To produce a valid and practical android-based counseling e-program product, it is necessary to go through 3 (three) phases/stages adapted from the Allesi and Trollip development model.

#### ***Planning Phase***

The selection of goals or achievements and targets developed in learning products is determined based on indirect observations and interviews conducted with counseling teachers at SMP Negeri 19 Makassar. The counselor teacher stated that during online learning, students had difficulty doing counseling directly at school. These restrictions make the student consultation process hampered and does not run as it should. The planning phase stage including: 1.) Identify learner characteristics. At this stage, it is to identify the characteristics of students with the aim that the results of developing an Android-based e-counseling program are right on target and in accordance with user needs, in this case students and counselor teachers. 2.) Produce a Planning Document. The process in this stage is the making of a planning document, consisting of a script and an assessment.

3.) Determine and Collect Resources. At this stage, the collection of supporting sources in developing the application of the counseling e-program in the form of software and supporting facilities and infrastructure is carried out. After the application design has been completed, then inputting some of the contents of the questions regarding the student data that will be tested to obtain student information as well as testing the application whether it is running according to the objectives to be achieved. 4.) Conduct Initial Brainstorming. At this stage, the researcher conducts discussions with the counselor teacher regarding the content/content that is the development material and so on regarding the information needed in the process of developing an Android-based counseling e-program application. In addition, researchers also discussed with educational technology friends to get advice and input in the process of developing an Android-based e-counseling guidance program application. The process was also consulted with supervisors, material experts and media experts to obtain development directions.

#### ***Design Phase***

At this stage, several activities are carried out including developing ideas, conducting concept and task analysis, making initial program descriptions, and making flowcharts and storyboards. The process in this stage is that all ideas are developed. The idea is about the display, programming and form of counseling e-programs that can present text and image content. e- counseling program that can contain such content is in the form of an application that can be used on smartphone devices, especially Android.

At this stage, what is done is to analyze the types of counseling, the flow of counseling and the description of the application of counseling obtained from the counselor teacher in accordance with the objectives that are achieved. The next stage is compiling the scope of the application content based on the results of interviews with counselor teachers in accordance with the objectives or results to be achieved.

At this stage, a program planning design is made in the form of flowcharts and storyboards. The flowchart is the flowchart for the development of the counseling e-program that will be developed.

Furthermore, the preparation of this flowchart is used as the basis for making storyboards. Storyboards are made to compile product designs, be it appearance, colors, buttons, text, and others.

### **Development Phase**

The process in this development stage includes the development of the content contained in the counseling e-program which consists of text, images, student data input items, and others so that they are easy to read on Android or in the form of an application for easy reading on android. Component-program counseling-developed consists of guidance (data or input for students to conduct guidance, categories (types of guidance that students can choose according to their needs in counseling), and other manuals related to counseling activities.

The main display on the e-counseling application provides an overview of the positive impact that will be obtained by students in consulting with counselor teachers. This is expected to be an attraction for students to do counseling. The initial page display of the counseling e-program application can be seen in Figure 1.



**Figure 1.** E-Counseling Program Start Page

The next display provides an overview of the types of counseling that students can do according to their needs. The e-counseling application consists of four types of guidance, namely personal guidance (guidance on attitudes, self-potential, talents/interests, decision- making ability, and habits that lead to a healthy lifestyle physically and spiritually), social guidance (guidance on communication skills), the ability to think, behave/social relations, and adjustment to the environment), study guidance (guidance on attitudes, habits, mastery of material in the learning process), and career guidance (guidance on career direction, information about the world of work, and additional education that can add insight for career development).

Development e-counseling program was good one, of course, must be validated to find out whether the application developed is in accordance with the needs in the field. The counseling e-application program was developed and validated by two experts or experts who are experts in their respective fields, namely materials and media experts. Alpha test is done by using a questionnaire that has been validated by the validator. The purpose of this material expert validation is to measure the level of accuracy and quality of the material presented, namely multiplication, division, and fraction material.

At the stage of Alessi & Trollip's development model, a beta test was carried out to determine the students' responses to the e-counseling program product that had been developed. The beta test process was carried out by 29 students and 1 counseling teacher at SMP Negeri 19 Makassar. Students are directed to fill in the input in the counseling e- program application based on the counseling needs of the students. At the end of the application trial, students were given a response questionnaire to find out whether the application was running in accordance with the aspects to be achieved and in accordance with the guidance needed by students.

### **The Level of Validity, Practicality, and Effectiveness of the Development of Android- Based E-Counseling Guidance Program at SMP Negeri 19 Makassar**

The development stage is the last stage carried out by researchers. This development stage is the implementation of the media design that has been made. In the development of the e-counseling program, several data were obtained including validation data (alpha test) from material experts and media experts, beta test data / large group trials. Material experts evaluate the material from the development of learning aspects and material aspects. Media experts evaluate the application of the e-counseling guidance program as a result of the development of the media aspect. The evaluation results from material experts and media



experts were used to revise the e-counseling program and measure the level of validity that was developed to be tested in the field.

The following are the results of the assessment/validation of materials in development e-counseling guidance program based on Android at SMP Negeri 19 Makassar given by the validator is stated that the validator's assessment of the material/content aspect, an average score of 3.4 was obtained which indicates that this aspect is in the very valid category. In the construction aspect, an average score of 3 is obtained which indicates that this aspect is in the very valid, and the language aspect obtained an average score of 4 which indicates that the aspect is in the very valid category. So that the average score for the validation score on the material is which indicates that the media in the category is very valid. The revisions or inputs from the material validator are: 1) In the identity section add a class, 2) The term problem or constraints is replaced with a need or problem, 3) Placement of fields about the problem should be done after students read the BK literacy. Material validity result is show in Figure 2.

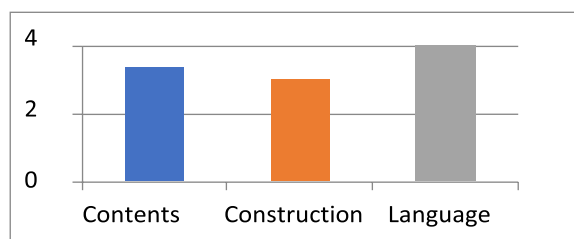


Figure 2. Material Validity Result

The following are the results of the assessment/validation of media in the development of an Android-based e-counseling program at SMP Negeri 19 Makassar provided by the validator in Table 1.

Table 1. Media Expert Validation Results

Aspect	Description	Validator Value
<b>Physique</b>	1 The Counseling Guidance E-Program application is easy to operate	4
	2 Ease of accessing the application	4
	3 Can be operated on existing hardware/software	4
	4 Ease of inputting student data	3
<b>The average validity of each criterion on the physical aspect</b>		<b>3.7</b>
<b>Compatibility of font type selection</b>	5 The letters used are easy to read	4
	6 Selection of the appropriate font/font size	4
	7 Not using too much combination of letters (fonts)	4
<b>The average validity of each criterion on the aspect Font compatibility</b>		<b>4</b>
<b>Appearance</b>	8 Place the button on the e-program right	3
	9 Proportional layout (text and image layout)	4
	10 Matching color proportions (color balance)	4
	11 Application design gives a positive impression	4
	12 Elements of student data layout and types of guidance are arranged systematically	3
	13 Appropriateness of image selection on the application	4
<b>The average validity of each criterion on the display aspect</b>		<b>3.6</b>
<b>Language</b>	14 Clarity of the language used	4
	15 Appropriateness of the language used	4
	16 Pronunciation	4
<b>The average validity of each criterion in the linguistic aspect</b>		<b>4</b>
<b>Average total validation of media assessment instruments</b>		<b>3.8</b>

Based on Table 1 the validator's assessment on the physical aspect, an average score of 3.7 was obtained which indicates that this aspect is in the very valid category. In the display aspect, an average score of 3.6 was obtained, which indicates that this aspect is in the very valid category. In the linguistic aspect, an average score of 4 indicates that this aspect is in the very valid category. So that the average score of the validation score on the media is 3.8 which indicates that the media is in the very valid category.

After analyzing the results obtained from the two validators, a trial was carried out on teachers and subjects to obtain data on the assessment of the development of an Android- based counseling e-program.

At this stage involved 1 teacher of counseling guidance who teaches at SMP Negeri 19 Makassar and 28 students consisting of 10 male students and 18 female students at SMP Negeri 19 Makassar.

The results of the assessment of student response analysis to Android-based e- counseling guidance program at SMP Negeri 19 Makassar can be seen from each category statement in [Table 1](#) which is attached to attachment 15. The responses of the students of SMP Negeri 19 Makassar after filling out the questionnaire assessment of the e-counseling program obtained an average score of 3.2, which means that the student responses are in the category of strongly agree. So it can be concluded that the students' responses strongly agree with the use of e- counseling programs as a medium for student consultation.

In addition to student responses in this limited trial, it also involved one counseling guidance teacher to provide feedback regarding development e-counseling guidance program based Android. This assessment is used to determine the teacher's response after using smartphone-based counseling media, especially Android. The results of the teacher response data analysis after doing the learning can be seen in [Table 2](#).

**Table 2. Teacher Response Analysis**

No.	Indicator	Score
1	Conformity of content with junior high school students	3
2	The Counseling Guidance E-Program application is easy to operate	3
3	Ease of accessing the application	3
4	The results of student guidance are useful for teachers	4
5	The subject matter does not have a negative impact on students	3
6	The letters used are easy to read	3
7	Do not use too many combinations of letters (fonts)	4
8	Proportional layout (text and image layout)	3
9	Matching color proportions (color balance)	4
10	Application design gives a positive impression	4
11	Appropriateness of image selection on the application	3
12	There are clear instructions about the application	3
13	The question subject provides instructions for filling	3
14	Use communicative language	3
15	Use clear and easy-to-understand sentences	4
16	Application design gives a positive impression	4
17	Application design gives a positive impression	4
<b>Average</b>		<b>3.41</b>

Based on [Table 2](#), it shows that the response of the counseling teacher at SMP Negeri 19 Makassar after running the application of the e-counseling program obtained an average score of 3.41 which means that the teacher's response is in the category of strongly agree. So it can be concluded that the teacher's response strongly agrees with the use of e-counseling programs as a medium for online student guidance

**Discussion**

The result of this research and development is to develop an android-based e-counseling program model. The procedure for developing an e-counseling program begins with a preliminary study stage by conducting a needs analysis and field study on the guidance process that has been implemented. After conducting field observations, the researchers determined an application model as a medium that made it easier for students and counselor teachers to conduct online guidance. The focus of this research is to produce an android-based counseling e-program application at SMP Negeri 19 Makassar.

The android-based e-counseling program model is a guidance model through android which was developed to provide guidance and counseling services, the development of students will be more optimal and reduce the pressure of problems experienced by students. This e-counseling guidance program model is designed to be simple, practical and effective so that it can be used by students. The results of the research include the development of a e-counseling program model, validation of material experts and media experts on the e-counseling guidance program model, the results of field trials, as well as an analysis of the practicality and effectiveness of the developed e-counseling program model. Technological developments, especially smartphones/androids, have not been maximized by guidance and counseling teachers in the guidance process with students. The guidance process is not optimal with the implementation of the online learning process, so that guidance and counseling teachers do not carry out their duties to provide information services or solutions needed by students. The application between the two is carried out flexibly depending on the needs of students.

In addition, this research is based on problems that occur in the field. As has been described in the results of observations that have been obtained as initial data when conducting a preliminary study. Android-based counseling e-program as an information service medium for students of SMP Negeri 19 Makassar in the form of using smartphone devices, especially androids for the guidance and counseling process which makes students unable to consult with guidance and counseling teachers (Budianto et al., 2019a; Wang & Liu, 2020). So that researchers try to combine the development of modern technology today with the problems that exist in the field.

Researchers produced products that can be used as a medium of consultation between students and teachers of counseling guidance at SMP Negeri 19 Makassar. In developing an e-counseling program by identifying the need for, the researcher conducted interviews with BK students and teachers, from the phenomena obtained in the field which became a reference in research on the development of this e-counseling guidance introduction application. In this development research is also based on the relevant theory and ICT-mediated counseling is often referred to as e-counseling (Kolog et al., 2015).

The developed e-counseling program has gone through alpha and beta tests. The alpha test is carried out by media experts and material experts who have mastered their fields. Based on the results of the media expert's assessment, it was obtained 3.8 with a very feasible (valid) category after fulfilling all the suggestions from the media expert. Meanwhile, in the Material Test conducted by the guidance and counseling lecturer, the results obtained were 3.4 very feasible categories and were ready to be continued at the next stage by making a few revisions. Beta testing can be carried out after meeting the requirements of the expert test and being declared eligible without making any revisions.

This study is supported by some previous study related to digital libraries the effectiveness of using digital libraries was quite effective (Ketut & Sunu, 2022). The findings revealed that the universities in South East of Nigeria have e-counseling facilities and the students are very aware of e-counseling opportunities in the universities (Omeje et al., 2016). Andragogy-based counseling via WhatsApp to reduce anxiety during the Covid-19 pandemic was beneficial for students and facilitated the provision of services from Guidance and Counseling teachers (Fadkhurosi & Kusmaryani, 2022). The authors were successful in creating a reliable, usable, and efficient mobile-based e-sociometry program at the Bukittinggi State Islamic Institute's Counseling Guidance Laboratories (Rezza Shafitri Anita, 2021). The findings revealed that: (1) the school counselor and students needed a virtual counseling room model; (2) the virtual counseling room model's prototype was a Google Slides-created tool that offered a variety of guidance and counseling services; (3) the virtual counseling room model had the utility, feasibility, and accuracy values that make it valid and practicable to use as a tool to deliver guidance and counseling services (Firdaus et al., 2022). According to the findings, an efficient digital counseling environment includes high-quality teaching materials that are enhanced with multimedia components and activities that encourage the participant to take care of themselves (Paalim et al., 2022).

Thus, the application can be accepted, and based on a test involving 10 students and a school counselor in the small group test; it indicates a very positive response (high) (Alwi et al., 2019). In line with the other study stated that guidance and counseling was minimally used to promote student discipline in secondary schools in Kisumu District. Punishments especially corporal punishment was widely used to solve disciplinary cases in all schools. Given that school counselors have positive opinions concerning the use of ICT in school counseling applications (Beidoğlu et al., 2015; Budianto et al., 2019b).

Based on the results of the development with consideration, where the e-counseling guidance program was developed based on the needs in the online guidance process so that it can provide benefits for schools, teachers and students. Based on the results of the development through the content validation stages carried out by media experts and material experts, they revise the design results and provide an assessment so that adjustments are made to the second revision of the validator can be used and are suitable for use.

Furthermore, an android-based e-counseling guidance program assessment instrument is valid and usable, according to the assessment of media experts and subject matter experts, and the practicality of the assessment of learning outcomes using the e-counseling guidance program is based on teacher and student response, which are both stated to be practical. As recommendation for further researchers to create awareness to e-counseling programs about the predictive factors that the other departments students in universities to apply the other e-counseling based on the students' need, and this area of research clearly needs to be investigated in more detail.

#### 4. CONCLUSION

E-counseling guidance program is developed for assisting counselor teachers with students in communicating related problems and obstacles faced, both related to learning problems or personal



problems that have the potential to interfere with the learning process. The results of the development of the e-counseling guidance program are then tested to determine the results of teacher and student responses. The level of validity of the e-counseling guidance program assessment instrument based on the assessment of media experts and material experts is in the very good category, which means that the android-based e-counseling guidance program assessment instrument is valid and can be used, while the practicality of the assessment of learning outcomes using the e-counseling guidance program is based on the teacher and student response questionnaires are stated to be practical at the school.

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