

Guidance and Counseling Information Technology Module Based on Guided Discovery Learning

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ARTICLE INFO

Article history:

Received February 28, 2023

Revised March 06, 2023

Accepted May 13, 2023

Available online May 25, 2023

Kata Kunci:

Informasi, modul, Guided Discovery Learning.

Keywords:

Information Technology, Guided Discovery Learning.



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ABSTRAK

Keterampilan dalam menggunakan teknologi informasi adalah kebutuhan penting dimasa ini. Untuk itu perlu mempersiapkan mahasiswa bimbingan dan konseling agar memiliki keterampilan yang memadai dalam menggunakan berbagai aplikasi teknologi informasi. Keterampilan tersebut diperlukan untuk memfasilitasi kebutuhan siswa yang sesuai dengan perkembangan teknologi. Adapun tujuan dari penelitian ini yakni untuk menguji kelayakan modul yang dikembangkan. Penelitian ini tergolong kedalam jenis penelitian pengembangan, yang dikembangkan dengan menggunakan model Borg & Gall. Subjek yang terlibat dalam penelitian ini yakni ahli design media dan ahli materi. Adapun pengumpulan data dalam penelitian dilakukan menggunakan metode observasi, wawancara, dan angket, dengan instrument penelitian berupa angket validasi ahli desain, angket validasi ahli materi dan angket respon mahasiswa bimbingan dan konseling. Data yang diperoleh dalam penelitian kemudian dianalisis dengan menggunakan rumus persentase. Hasil analisis penelitian menunjukkan bahwa pada uji validasi ahli desain memperoleh persentase 92,2% yang berada pada kategori sangat valid, hasil analisis materi analisis validasi ahli dengan persentase 94,4% yang berada pada kategori sangat valid, dan hasil analisis respon siswa dengan persentase 98% yang juga berada pada kategori sangat valid. Berdasarkan hasil tersebut maka dapat disimpulkan bahwa modul mata kuliah teknologi informasi dalam bimbingan dan konseling yang dikembangkan berada pada kategori valid dan sangat layak untuk dikembangkan.

ABSTRACT

Skills in using information technology are an important requirement in this era. For this reason, it is necessary to prepare guidance and counseling students to have adequate skills in using various information technology applications. These skills are needed to meet students' needs according to technological developments. This research aims to test the feasibility of the developed module. This research belongs to the type of development research which was developed using the Borg & Gall model. The subjects involved in this study were media design experts and material experts. The data collection in the study was carried out using observation, interview, and questionnaire methods, with research instruments in the form of design expert validation questionnaires, material expert validation questionnaires, and guidance and counseling student response questionnaires. The data obtained in the study were then analyzed using the percentage formula. The research analysis showed that the design expert obtained 92.2% in the validation test, which was in the very valid category. The results of the material analysis validation expert, with a percentage of 94.4%, were in the very valid category, and the results of the analysis of student responses, with a percentage of 98 %, are also in the very valid category. Based on these results, the information technology course module in guidance and counseling that was developed is in the valid category and is very feasible to develop.

1. INTRODUCTION

Information and communication technology is an important element in life. The role of information technology in human activities at this time is so significant (Sherly et al., 2020; Widiyono & Millati, 2021). Information technology has become a facility for the activities of various sectors of life and

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has touched guidance and counseling services (Lestari, 2018; Suarni et al., 2021). Information technology in guidance and counseling services has a very important role in supporting the guidance and counseling system as a process of assisting students through various services (Handayani et al., 2022; Latip, 2020). The rapid advancement of information technology helps the existence of counseling guidance to be increasingly visible. Entering the beginning of 2020, the Covid-19 pandemic created enormous changes in all aspects of life, and this cannot be separated from the educational aspect, including counseling services. The most obvious change was the change in face-to-face learning methods to full online, which was initiated by confusion among educators and students (Fergina et al., 2022; Rahman et al., 2019; Triyono & Febriani, 2018). Based on this experience, all educators, students, and students realize the important role of Information and Communication Technology. In addition, the fast-moving dynamics of life and the need for information at that time also made the urgency of technology and information in guidance and counseling services needed because it could facilitate the communication relationship between guidance and counseling teachers and students so that guidance and counseling services were no longer limited by space and time, and guidance and counseling services can be done anytime and anywhere (Ilfana & Herdi, 2022; Jannah & Marjo, 2022; Widodo et al., 2021). The application of information technology in counseling services is used in all types of services, both system support, individual planning, and implementation of other services that are group, classical, and individual settings (Ibtyandi et al., 2019; Mayasari & Prabowo, 2022; Ummah & Handayani, 2022). So guidance and counseling teachers and Information Technology have a close relationship that requires each other to implement effective services.

The reality shows that many guidance and counseling teachers still need clarification about the use of information technology in implementing guidance and counseling services, so the use of Information and Communication Technology still needs to be improved (Aldina, 2018; Fadila, 2022). Information technology is one of the important components of supporting counseling services (Khairun et al., 2017; Yuliana, 2019). The lack of use of Information Technology in guidance and counseling services is a problem that needs to be looked for a way out because counseling teachers need to keep abreast of technological developments that will continue to advance, which will continue to provide changes in the world of education, especially including counseling guidance, so that one One way that can be taken is to prepare students for future guidance and counseling teachers to be more skilled and understand the important role of information technology in the implementation of counseling services. Increasing teacher skills in understanding the role of technology can be done by using learning media. Learning media is one aspect that supports the success of the learning process. It is because the media acts as a bridge of knowledge that connects students with the learning material presented by the teacher (Fadhilah et al., 2021; Hasibuan, 2019). Through media, students can understand the material's content better because the media can concretize various abstract concepts presented in the material (Setyawan, 2019; Yuliastini et al., 2020).

Learning media can be presented in print or digital form. One media that can be used to develop students' understanding of technology is the form of learning modules. Learning modules are a form of learning media presented in writing and arranged systematically by loading various learning materials adapted to the needs and learning objectives (Ilahiyah et al., 2019; Selviani, 2019; Shahida et al., 2021). Learning modules generally contain teaching materials, pictures, and various examples of evaluation questions (Ariana et al., 2020; Wati et al., 2019). The use of modules in the learning process aims to develop student independence in the learning process both individually and with teacher guidance, as well as to clarify and simplify the presentation of material so that the material presented is not too verbal (Friantini et al., 2020; Harianja & Anwar, 2021; Rofiah et al., 2018). The application of modules in guidance and counseling information technology learning will be more effective if accompanied by the application of the guided discovery learning model. It is because guided discovery learning is a learning model that focuses on guidance and independent practice to find new knowledge and experiences (Batubara, 2020; Samudera et al., 2022). Applying the Guided Discovery Learning model to students can help foster learning independence in understanding lecture materials (Darwis et al., 2019; Marewa, 2021). By applying the guided discovery learning model, learning is carried out through four stages: orientation, hypothesis generation, conclusion, and regulation (Destriana & Perdana, 2023; Putri & Effendi, 2019).

Several previous studies have revealed that guided discovery learning-based worksheets are very valid to be developed and taught to students, especially in physics learning material (Sabrina & Rahardi, 2021). The results of other studies revealed that developing an integrated thematic-based PJOK learning module for first-grade elementary school students was feasible for students to use (Febrianti et al., 2021). The results of subsequent research also revealed that the learning module with the Indonesian Realistic Mathematics Education approach on the Material of the Linear Equation System of Two Variables for the eighth grade developed is valid, practical, and effective for use as a medium for learning mathematics in the material of the System of Linear Equations of Two Variables for the eighth grade (Azka et al., 2019).

Based on some of the results of these studies, the learning module and the guided discovery learning model can significantly help the student learning process. In previous studies, no studies specifically discussed guidance and counseling information technology modules based on guided discovery learning. So this research is focused on this study to test the feasibility of guidance and counseling information technology modules based on guided discovery learning.

2. METHOD

This research belongs to the type of development research or Research and Development. Development research is a research method used to produce certain products and test the effectiveness of these products. In educational studies, development research (R & D) is a process used to develop and determine the validity of a product and whether or not the product is feasible. So the development research that will be carried out is to develop a module as one of the teaching materials in the Information Technology Course in Guidance and Counseling. This development research used a modified development model from Borg and Gall. However, this research was carried out until stages 6 and 7, namely small-scale product trials and product revisions, namely the Information Technology Subject module in Guidance and Counseling.

Data collection in the study was carried out using observation, interviews, and questionnaires. The research instruments used were a design expert validation questionnaire, a material expert validation questionnaire, and a 2020 guidance and counseling student response questionnaire. The data obtained in the study were then analyzed using a percentage formula. The results of the percentage analysis are then converted into the eligibility criteria table, as shown in [Table 1](#).

Table 1. Eligibility level criteria

Interval Criteria	Criteria
81% - 100%	Very Feasible
61% - 80%	Feasible
41% - 60 %	Enough Feasible
21% - 40 %	Less Feasible
0% - 20%	Not Feasible

3. RESULTS AND DISCUSSION

Result

The main result of this study is the Information Technology Course Module in Guided Discovery Learning Method-Based Guidance and Counseling. The procedure in this research and development is the result of a modification by Borg and Gall up to the seventh stage, namely product revision from small-scale trials. The results of each stage of development are as follows: the first stage is potential problems, which is carried out by conducting a study of the curriculum and the character of students to theoretical analysis. Researchers have taught the Information Technology Course in Guidance and Counseling from 2018 until now, so the researcher has collected potentials, problems, and initial data as the supporting lecturer and developer of the course lesson plans. The primary potential and problem is the need for teaching materials relevant to teaching needs. It is caused by a lack of textbooks that students can use as references because there is no book on Information Technology in the Implementation of Counseling Services. Due to the lack of books that can be used as references, it is necessary to carry out literature studies from various sources in developing this module. This development uses the literature study method using references from previous research journals (the last ten years) that are relevant to the sub-discussions in the course lesson plan.

The second stage is data collection. This development product includes Course Modules that are arranged by the lesson plans developed by the course lecturers so that the modules developed contain the subject matter of the basic concepts of Information Technology in Guidance and Counseling and their urgency, Functions, and Roles Information Technology in counseling guidance, Information Technology Systems in counseling guidance, Information Technology Ethical Issues in counseling guidance, Information Technology-based guidance counseling services, Application of Information Technology in Guidance Assessment, Application of Information Technology in Data Analysis, Application of Information Technology in Guidance Data Storage counseling, Information Technology Applications in Information Services, and Information Technology Applications in Counseling Services. The third stage is the product design stage. The creation of this module utilizes the Microsoft Office Word 2013 application with size requirements that follow standard guidelines for printed book sizes, namely 17.6 cm x 25.0 cm (B5) with a

thickness of +/- 80 pages. The modules are arranged in a design that is made attractive and adjusts to each sub-discussion of the material contained in each part of the module. The developed Cover Module can be seen in [Figure 1](#).



Figure 1. Module Design

The fourth stage is the module development stage. Modules have been developed through theoretical studies from accredited books and journals in the last 5-10 years. Sections or Chapter Titles in the Modules being developed are determined through a study of the curriculum and teaching materials, so the chapter titles will be determined from the material in the course lesson plan, which was developed by the researcher as the lecturer in the Guidance and Counseling Information Technology Course from 2018 until now. The fifth stage is the Design Validation stage which is carried out by two experts, namely Material Experts and Design Experts. An overview of the results of the validation analysis of design experts, material experts, and student response questionnaires is presented in [Table 2](#).

Table 2. Tabulation of Data From Validation Analysis and Student Responses

Expert Statement	Score	Percentage	Category
Design/Media Expert	59	92,2%	Very Feasible
Material Expert	64	94,2%	Very Feasible
Student Response	2950	98%	Very Feasible

The sixth stage is the product revision stage. Design and material revisions were made based on suggestions for improvement from expert validators and student responses. The revised results of each validator can be seen in [Table 3](#).

Table 3. Product Revision Results

Revision of Design Expert Validation Results	Revision of Design Expert Validation Results	Revision of Student Response Results
1. The systematics of writing modules should be simple, use different sizes and types of fonts to avoid a monotonous impression on the module, and make it more interesting because it varies from one discussion to another.	1. Adding several discussions that contain novelty, especially regarding types of online or multimedia learning media	1. Using words or sentences that are easier to understand or familiar to students
1. Use a suitable and attractive color combination between the background and the font color used.		2. The choice of substitute terms must be consistent and easy to understand.

Discussion

Based on the results of the analysis that has been carried out, the learning modules developed are in the valid category and very feasible to develop. These results also show that using modules can assist teachers in delivering teaching materials, as well as helping students to learn independently ([Ilahiyah et](#)

al., 2019; Selviani, 2019; Shahida et al., 2021). Along with the progress and development of the times, it needs adjustments to everything that is progressing and developing in it, namely information and communication technology, which we can see is developing so rapidly in this 5.0 era (Ibtyandi et al., 2019; Mayasari & Prabowo, 2022; Ummah & Handayani, 2022). To adjust to increasingly sophisticated technology and information development, adequate skills are needed to utilize this technology appropriately and optimally. It cannot be denied that current developments in technology and communication have touched all aspects of social, economic, and educational life. At present many people think that the use of media in learning can only be used in certain subjects or fields of study (Ilfana & Herdi, 2022; Sherly et al., 2020; Widiyono & Millati, 2021). So that proper provision is needed to hone skills, especially educators, in the use of information and communication technology, especially in guidance and counseling services. Guidance and counseling services should be able to go hand in hand with advances in technology as an effort to utilize the provision of services and advances in the world of guidance and counseling itself (Fergina et al., 2022; Rahman et al., 2019; Triyono & Febriani, 2018).

The use of information technology will encourage guidance and counseling teachers to be more creative, innovative, and varied in seeking the latest information (Ibtyandi et al., 2019; Mayasari & Prabowo, 2022; Ummah & Handayani, 2022). Guidance and counseling teachers with knowledge and skills Presentation of learning modules as learning media will certainly be able to develop student independence in the learning process both individually and with teacher guidance, as well as clarify and simplify the presentation of material so that the material presented is not too verbal (Ariana et al., 2020; Friantini et al., 2020; Wati et al., 2019). The application of modules as learning media has several advantages, such as facilitating the process of presenting material, enabling students to study independently, and can increase students' understanding of the material presented (Friantini et al., 2020; Harianja & Anwar, 2021; Rofiah et al., 2018). Furthermore, the application of learning modules based on the Guided Discovery Learning model will be able to help foster student learning independence in understanding lecture materials (Batubara, 2020; Darwis et al., 2019; Marewa, 2021; Samudera et al., 2022). The results obtained in this study align with previous research results, which also revealed that guided discovery learning-based student worksheets are very valid to be developed and taught to students, especially in Physics learning material (Sabrina & Rahardi, 2021). The results of other studies revealed that developing an integrated thematic-based PJOK learning module for first-grade elementary school students was feasible for students to use (Febrianti et al., 2021). The results of subsequent research also revealed that the learning module with the Indonesian Realistic Mathematics Education approach on the Material of the Second Grade Fifth Linear Equation System which was developed, was valid, practical, and effective for use as a medium for learning mathematics on the material of the Eighth Grade Linear Equation System of Two Variables (Azka et al., 2019). Based on some of the results of these studies, the learning module and the guided discovery learning model can significantly help the student learning process.

4. CONCLUSION

Based on the data analysis and discussion results, it can be concluded that the information technology course module in guidance and counseling that was developed is in the valid category and is very feasible to develop.

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