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The Model of Management Information System-Assited Comprehensive Guidance and Counseling Planning Program

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Abstract:

Comprehensive guidance and counseling program planning comprises two main stages, identifying needs and developing programs. The counselor's problems are not optimal in identifying of the environment needs and the program processing is still manual. This study development of a comprehensive guidance and counseling program model assisted by an efficient management information system. This research uses research and development design. Data collection method uses interview, observation, documentation, scale and questionnaire. The results show this model is acceptable and can accommodate the student's needs, the school environment and compile a comprehensive and efficient guidance and counseling program. It expects this system to need to will be optimized by counselors in managing information or identifying the needs of students and the school environment.

Keywords: comprehensive guidance and counseling programs, management information systems, planning

INTRODUCTION

Guidance and counseling is a service process carried out by the counselor to the client to alleviate individual problems and or develop the potential of the individual. The existence of counselors in the national education system is stated as one of the qualifications of educators, equal to the qualifications of teachers, lecturers, study tutors, tutors, facilitators, and instructors (Law No. 20 of 2003 Article 1 Paragraph 6).

Guidance and counseling include management. Guidance and counseling management is a series of counselor activities ranging from planning, organizing, implementing, and evaluating guidance and counseling services. Planning includes the initial step in determining the activities of guidance and counseling services. The success of guidance and counseling services is caused by several factors and one of which is the planning process.

Planning is a projection of what must be performed to achieve the goals and objectives that have been set (Kaufman 1972; Hadikumoro 1980) in Somantri (2013). As a projection, planning has the element of activities of identifying, inventorying and selecting needs based on priority scale, specifying in a more detailed manner regarding the expected results, identifying requirements or criteria to meet each needs, and identifying possible alternatives, strategies, and objectives for the implementation.

Comprehensive planning will involve all personnel in an organization and identify all the information needed. Comprehensive planning in guidance and counseling results in guidance and counseling programs that can identify the needs of various parties. The guidance and counseling programs as a form of outcomes from a planning process can be used as a basis for carrying out services.

According to Gysbers and Henderson (2006), the program management includes four stages, namely the planning, preparation, implementation and assessment stages. Furthermore, the planning stage includes need assessment, classifying goals, type of program, cooperation in the form of support from parents' schools and program priorities. The preparation program stage includes formulating objectives of the program, choosing the strategy of the program implementation, describing components of the program, analyzing the ability of school staff and conducting capacity building or staff development for the implementation of the program.

The planning process of the guidance and counseling program in schools experience development according to demands and needs. The demands for technological and knowledge development can bring positive and negative impacts. Students who are classified as teenagers, sometimes are less able to control themselves from the negative effects of these developments. The role of counselor in preventing negative impacts on students requires support and assistance from various parties, especially parents. Therefore, the planning of guidance and counseling programs develops comprehensively.

Comprehensive guidance and counseling program planning includes two main stages: the stage of identification of needs and preparation of the program. The needs identification phase includes identifying the needs of students and identifying environmental needs. Environmental needs are obtained from information from parents, teachers, homeroom teachers, and principals.

The identification of needs is only performed to students. There is no identification of the school environment. Identification of environmental needs is very important to be carried out by the counselor before developing a guidance and counseling program. The identification of the environmental needs is required to know the needs of the environment both from parents who have already understood the development of their children, from school, school principals, the teachers or homeroom teachers who have roles of providing information in the preparation of guidance and counseling programs and collaboration with counselors in counseling and guidance services.

The description above is in line with the role and task of guidance and counseling personnels in the planning process of the guidance and counseling program which consist of principals to provide infrastructure and other facilities for the implementation of guidance and counseling and provide input in the preparation of guidance and counseling programs. Furthermore, the role of homeroom teacher and subject teachers helps counselors in developing guidance and counseling programs.

To obtain information on the needs of students, these following techniques can be used:the Development Task Inventory (DTI), Problem Revealing Tool (PRT), Problem Check List (PCL), Sociometry, or aptitude test. In addition,the environmental needs (parents, teachers, principals, and other stakeholders) can be gathered using interview instrument, questionnaire or observation (Sugiyo, 2011).

The preliminary study which used interviews and document study involving ten counselors as respondents obtained the following results: the counselor performed 100% of students' need assessment, counselors conducted 0% of the environmental need assessment (did not conduct environmental assessment needs) and counselors developed 0% of the comprehensive guidance and counseling program (did not conduct the comprehensive counseling and guidance program). Therefore, it can be concluded that the

counselor has not yet identified the needs of the environment and developed a comprehensive guidance and counseling program.

The discussions with the guidance and counseling experts who provided material to counselors while participating in the Professional Teacher Training and Education stated that most counselors had not yet conducted environmental needsassessment of guidance and counseling in developing thecomprehensive guidance and counseling program. The counselor only prepared a guidance and counseling program based on the student's needs assessment, meaning that the counselor has not carried out environmental needs assessment and developed a comprehensive counseling and guidance program.

The results of the discussion with the board of guidance and counseling teachers in developing guidance and counseling program using the software application in the form of questionnaires for the needs of students. Counselors were very helpful in developing the guidance and counseling program with these applications. However, its shortcoming was the needs assessment was only for students, and environmental needsassessment have not been covered in the software.The othershortcomingwas the offlinesoftware consumed the time of the counselor in processing the needs assessment. Furthermore,the process of the environmental needsassessment, which involved various parties,required a long time.

The planning of the guidance and counseling program only used the help of the offline application. The comprehensive guidance and counseling program planning models assisted by management information systemis suitable for analyzing environmental needs assessment or information from various parties. The online information management systems can manage various information from students, principals, homeroom teachers, parents and other environments which are then analyzed and coordinated. Both students and the environment can provide the required information using online software which will automatically be accommodated by those needs.

According to Al-Mamary etc (2014), management information system one of the most important tools in any organization, which aims to provide reliable, complete, accessible, and understandable information in a timely manner to the users of the system. Management information systems assisted in automating tasks. Automation can save time, money, resources, reduce employee's staff, and enhance organizational workflow. In addition assist in increased organization productivity, effectiveness, increase customer satisfaction, and efficiency of the work. In the telecommunication companies, MIS in general enables to collect, processing and storage of the information; with overall purpose to make that information available on demand in the required format. Telecom Companies can't work without management information systems as the number of participants in these companies more than million subscribers, so it's hard to save their data using the manual method (using files).

The information management system contains information from various parties. In this study, the information is in these following forms: 1) the information on the needs of the students including personal data, information on developmental tasks and students'problems, 2) information on parents' expectations including information on parental data, information on children's data, and expectations of parents towards students' needs, 3) homeroom teacher information includes information on homeroom teachers' data and information on the needs of their students, 4) information on subject teachers including information on teacher data and information on students' needs from teachers, 5) information on support from principals including information on students' needs from the school principal, information on the infrastructure support in guidance and counseling and the development of the counselor.

The use of the information management system is expected to facilitate counselors in analyzing the need for environmental assessment and developing the comprehensive guidance and counseling programs. Anni (2012) showed that the counselor was able to carry

out needs assessment in the developing the guidance and counseling program in the field of tutoring. On the other hand, the system still has some short comings such as it could not choose appropriate instruments and standardize instruments; the data analysis was still performedmanually without using the computer program. Therefore, the data analysistook a lot of time. These short comings affected the quality of the guidance and counseling programs and the performance of the counselor.

The purpose of this study is to describe and analyze the existing model of planning of counseling and guidance program in schools and create the model of comprehensive planning of the guidance and counseling program assisted by an efficient information management system.

METHOD

This study employed research and development design. According to Borg and Gall (1983), there are 10 steps for implementing research and development strategies. These stages were as follows: 1) Research and information collecting, 2) Planning, 3) Develop preliminary from of product, 4) Preliminary field testing, 5) Main product revision, 6) Main field testing, 7) operasional product revision, 8) Operasional field testing, 9) Final product revision, 10) Dissemination and implementation.

The study was conducted several stages with different subjects. In the preliminary study phase, the sources of the data were ten counselors in five schools and as a supporting data, there were also a board of counselor and an expert in guidance and counseling. While at the development and validation stage, the subjects to limited test were ten counselors, a principal, a teacher, a homeroom teacher, a learner and a teacher. The subjects of the expanded test were twenty counselors, two principals, two teachers, two homeroom teachers, two students and two parents. The subjects of the field test were thirty counselors, two principals, two teachers, two homeroom teachers and three assessment experts to assess, provide input and conduct model validation.

The data collection method employed interviews, observation, document studies, rating scales and questionnaires. The data were analyzed using qualitative descriptive analysis in the form of interactive analysis of Miles and Huberman models and quantitative data analysis with percentage. The data analysis activities consisted of data reduction, data presentation and conclusions. The model perception test for 150 subject teachers employed Structural Equation Modeling (SEM) data analysis.

RESULT AND DISCUSSION

The preliminary study from interviews and document analysis on the existing planning of the guidance and counseling program that have been implemented school can be seen in this following table:

Table 1. Preliminary Study Results

Activity	Results (%)
Identifying the needs of students	100
Identifying environmental needs	0
The development of comprehensive guidance and counseling programs	0

The counselor has identified the needs of students, but has not yet identified the environmental needs so that it can be concluded that the counselor has not developed a comprehensive guidance and counseling program. The results of interviews revealed that there was no application that eased the environmental needs assessment. Therefore, the counselors needed an information management system to develop the comprehensive guidance and counseling program.

The information management system is very important to accommodate the a environmental needs assessment and developed a comprehensive guidance and counseling program. Saxena (2014) explained that Data, information and decision process are linked to each other. Data after processing is transformed into information and information is the base for decision making process. It is very important to have relevant information for correct, timely and effective decisions to be made. Management Information System (MIS) has assumed great importance in this context.

The planning stage included planning to identify the needs of students and the environment and to develop a comprehensive guidance and counseling program. Identification of these needs was based on the description of the ten standards of students' independence competency. Based on the ten of these standards or indicators, the items of statement of needs for both students and the environment were prepared. The items of statements were developed by managing the needs of students and the environment into a single management. The instrument was validated by an expert in guidance and counseling, an expert in information technology and a practitioner.

The development phase of the model resulted in web with the domain of programpobk.com containing the management of identification of the needs of students, environmental needs, developing an annual program, developing semester programs, planning implementation activities and supporting activities. The information system in the form of the web, students and the environment can identify needs through online system using a notebook or handphone. From the results of the identification, the system automatically managed to be a comprehensive guidance and counseling program.

The steps in planning a comprehensive guidance and counseling program assisted by this information management system were as follows: 1) the subject accessing the programpopbk.com, 2) the subject registered himself, 3) the subject made choices as students or principals or homeroom teachers or parents , 4) the subject filled in the existing data and statement needs, 5) the subject saved the data that has been filled, 6) the subject selected the exit button.

The limited field trial phase consisted of conducting the first focus group discussion involving ten counselors, a school principal, a parent, a teacher, a homeroom teacher and a student. Data collection method employed rating and observation scale. The result of observation showed that the subject was able to access the web information system, the subject was able to fill in the data and identified their needs, there were 5 subjects who have not been able to use the web. The assessment scale showed that the model was ready to use with a revision. The revision suggested thata simplified user interface of the web, the addition of a graphical display of the subject's needs, the parents' participation was still low, and required training.

The revision phase of the limited field trial results was revising the web interface to make it more understandable and easier for the subject to use, generating a graphical display of the subject's needs, provided suggestions for approaches and socialization on the parents, and conducted a training using the information system web.

The expanded field trial phase was in the form of discussion group II involving on twenty counselors, two principals, two parents, two teachers, two homeroom teachers and two students. Data collection method employed rating and observation scale. The result of

observation showed that the subject was able to access the web information system, the subject was able to fill in the data and identified needs, there were only two subjects were unable to use the web. The assessment scale showed that the model was ready to use with a slight revision. The expected revision suggested that the parental subject participation was still low, internet networks in certain regional schools experience difficulties and required training.

The revision stage of the product from the extensive trial results in providing advice on approaches and socialization on the subject of parents, specifically schools that experience internet network difficulties, then preparing a manual model, and conducting training using an information system web.

The field test stage consisted of conducting focus group discussion III on thirty counselors, two principals, two parents, two teachers, two homeroom teachers and two students. Data collection method employed rating and observation scale. The experts were also asked to provide input and provided an assessment and validation of the model. The expert included three promoters, an expert in guidance and counseling and an expert in information technology. The observation result showed that the subject was able to access the web information system and was able to identify needs. The results of the rating scale showed that this model was acceptable and could accommodate the needs of students, the school environment and developed a comprehensive and efficient guidance and counseling program.

The final product revision phase was aimed to improve the model of a comprehensive guidance and counseling program planning, improve the user interface of the web, and prepared a model to be presented in dissemination and implementation.

The dissemination and implementation stage is in the form of presenting the model of the planning of the comprehensive guidance and counseling program with a management information system on a seminar for school counselors in the counseling teacher forum. This research has only arrived at the final product stage and has not carried out the dissemination and implementation stage nor did the perception test.

Perception test model employed questionnaires which involved a hundred and fifty subject teacher. The subjects were asked to fill out questionnaires as a form of perception assessment on a model of comprehensive guidance and counseling program planning assisted by information management systems. This system was expected to be optimized by counselors in managing information or identification the needs of students and the school environment.

The final product results of the model of the comprehensive guidance and counseling program planning assisted by the information management system can be summarized in the following table:

Table 2. Final Product Results

Activity	Results (%)
Identifying the needs of students	100
Identifying environmental needs	100
The development of comprehensive guidance and counseling programs	100

The finding of this study was in the form of the model of comprehensive guidance and counseling program planning assisted by information management system. This model was compared to existing offline software models, this model can accommodate the identification of the needs of students and the environment from various parties compared to offline models that have not been able to identify environmental needs. The advantages of this study are: (1)

the model can accommodate the identification of the needs of students and the environment, (2) the model could develop a more efficient comprehensive guidance and counseling program, (3) this model couldincrease the role of other school personnels in their duties in preparing guidance and counseling programs (4) this model couldhelp facilitate counselors in the process of implementing guidance and counseling services, (5) this model could improve accountability of guidance and counseling reports.

CONCLUSION

The planning of guidance and counseling programs at schools initially still did not show a comprehensive guidance and counseling program because there is no identification of school environmental needs. The planning program is also still manual. Therefore, it requires a long time. The model of the comprehensive guidance and counseling program planning assisted by this information management system is considered to be able to assist counselors in accommodating the needs of students and the school environment and can plan a more efficient programs. This system is expected to be optimized by counselors in managing information or identification the needs of students and the school environment in developing comprehensive guidance and counseling programs.

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