Development of Discord-Based Career Information Service Management Model to Improve Students' Career Planning Ability

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Abstract: This research aims to develop a Discord-based career information service management model to enhance students' career planning abilities. This research method used research and development with the ADDIE model, which consists of Analysis, Design, Development, Implementation, and Evaluation. The developmental research was conducted at SMA Muhammadiyah Plus Salatiga, with teachers and students as the research subjects. The results of the study were validated using technical triangulation and source triangulation techniques. Data analysis utilized the interactive model for qualitative data and descriptive analysis for quantitative data. The IT expert validation resulted in a score of 92%, and the management expert validation yielded 90%. Additionally, the average trial results for teachers and students were 95.5% and 97.5%, respectively. Based on these findings, the development was categorized as excellent, feasible, and acceptable and can be utilized to enhance student's career planning abilities.

Introduction

One aspect of adolescent development includes the ability to consider the future, including the ability to plan and explore various possibilities to achieve these goals (Lestari, 2017). In this context, adolescents are expected to realize the importance of choosing and preparing a career that suits their potential and conditions. In line with this view, Dewi (2021) explains that adolescents are in a stage where they begin to think about the field of work they want and can undertake to shape their lives in the future.

Career planning is a series of structured steps taken by a person to identify strategies to achieve desired career goals (Ardini & Rosmila, 2021). This statement is supported by the views of Madisa and Dkk (2022), which state that career planning is a phase in which individuals plan steps in their professional lives by gathering information, understanding themselves, and considering various aspects of work to achieve meaningful self-achievement. However, the empirical situation shows that many students still need clarification in planning their careers after finishing school. The results of a preliminary study conducted in May 2023 at SMA Muhammadiyah Plus Salatiga showed that out of ten students, four of them did not have an understanding of their career plans after completing school, four of them were hesitant about their career choices, and two of them were confident in their career choices. In accordance with the results of a survey conducted by the Director General of Quality Improvement of Education and Education Personnel, it was found that the percentage of unemployment among SMK graduates is higher than that of graduates from other education levels, reaching 13.44%. This finding is also reinforced by recent research by the Central

Bureau of Statistics (BPS), which shows that the highest Open Unemployment Rate (TPT) was recorded in the secondary education group, such as high school and vocational graduates, reaching 8.41% of the total TPT in February 2023. This conclusion reflects the impact of students' low career preparation skills after completing education at SMK (Rahayu and Rifki, 2021).

There are several concrete problems faced by students in the context of careers, including a) difficulties in understanding how to choose a study program that suits their interests and talents, b) lack of information about the world of work, c) confusion about the choice between working or not, d) difficulties in determining jobs that match their interests and abilities, and e) lack of understanding of the characteristics, requirements, abilities, and skills needed in work, as well as future career prospects (Aufar, 2019). Another study conducted by Crisan et.al. (2014) revealed that students need more information about job opportunities, their expectations for the future do not match their knowledge and abilities, and they need a structured career plan.

The problems mentioned above can be overcome through career information services provided by counseling teachers. Darmawan and Dwikurnianingsih (2021) explain that information services are efforts and activities that aim to provide certain information to students that are logically in accordance with real situations and conditions in the fields of social personality development, learning activities, and careers, such as learning experiences from the environment around students' lives, which can help them plan their lives independently. Research findings by Manik (2022) showed that the provision of information services can significantly improve the career planning skills of class XII students at SMK Multi Karya Medan. The results of this study reflect a significant change in career planning skills, with a significance value of 0.000, which is lower than the threshold value of 0.05. Furthermore, I. E. Putri et al., (2021) said students are given access to information services to understand their interests, values, skills, and personal character, so they can choose a field of work that is more in line with their uniqueness. It is in line with Holland who identifies six types of career personalities and pays attention to the compatibility between individual personality characteristics and work environment conditions (Arokianathan et al., 2019). This theory states that each individual has preferences, interests and skills that align with one or more career personality types.

The facts on the ground are not in line with this. Interviews with counseling teachers at SMA Muhammadiyah Plus Salatiga indicate that career information services experience barriers that make it difficult to implement. One of the main obstacles is time constraints, where counseling teachers do not have special time slots to provide counseling services. BK services are still conducted conventionally, and BK teachers are often constrained by other tasks and priorities that are considered more urgent, such as individual counseling and home visits. Therefore, it is necessary to develop career information services by utilizing technology as a solution to overcome these problems. This finding is supported by research by Ilfana and Herdi (2022), which states that information and communication technology has an important role in supporting the process of guidance and counseling services in the school environment.

Most research relies on visual media as the foundation for developing career information services (Achmad, 2022; Alamsyah et al., 2023; Alkautsar, 2019; Andriati et al., 2020; Azam, 2016; Murdiyanto et al., 2017; Rahman et al., 2023), while this study focuses on the utilization of VoIP-based media, specifically Discord. Furthermore, earlier studies on this topic predominantly targeted elementary, middle, and vocational school students as the research population (Achmad, 2022; Alamsyah et al., 2023; Alkautsar, 2018; Meilani et al.,

2023; Murdiyanto et al., 2017; Prasetyo, 2022; Rahman et al., 2023; Tas'adi et al., 2015;). This research involves high school students as the population under study. The aim of this research is to develop a discord-based caring career information service management model to improve the career planning ability of senior high school students.

Research Method

This study adopted the Borg & Gall research and development framework. There are ten stages in conducting research and development, 1) Research and information collecting, 2) Planning, 3) Develop preliminary form of product, 4) Preliminary field testing, 5) main product revision, 6) Main field testing, 7) operational product revision, 8) operational field testing, 9) Final product revision, dan 10) Disseminitaion and impelelementation (Borg & Gall, 1989). However, in this study, the research was only conducted up to the fifth stage due to time constraints and the research focus. The data collection method involved triangulation from questionnaires, interviews, and a literature study involving teacher and student participation and involved a limited field trial.
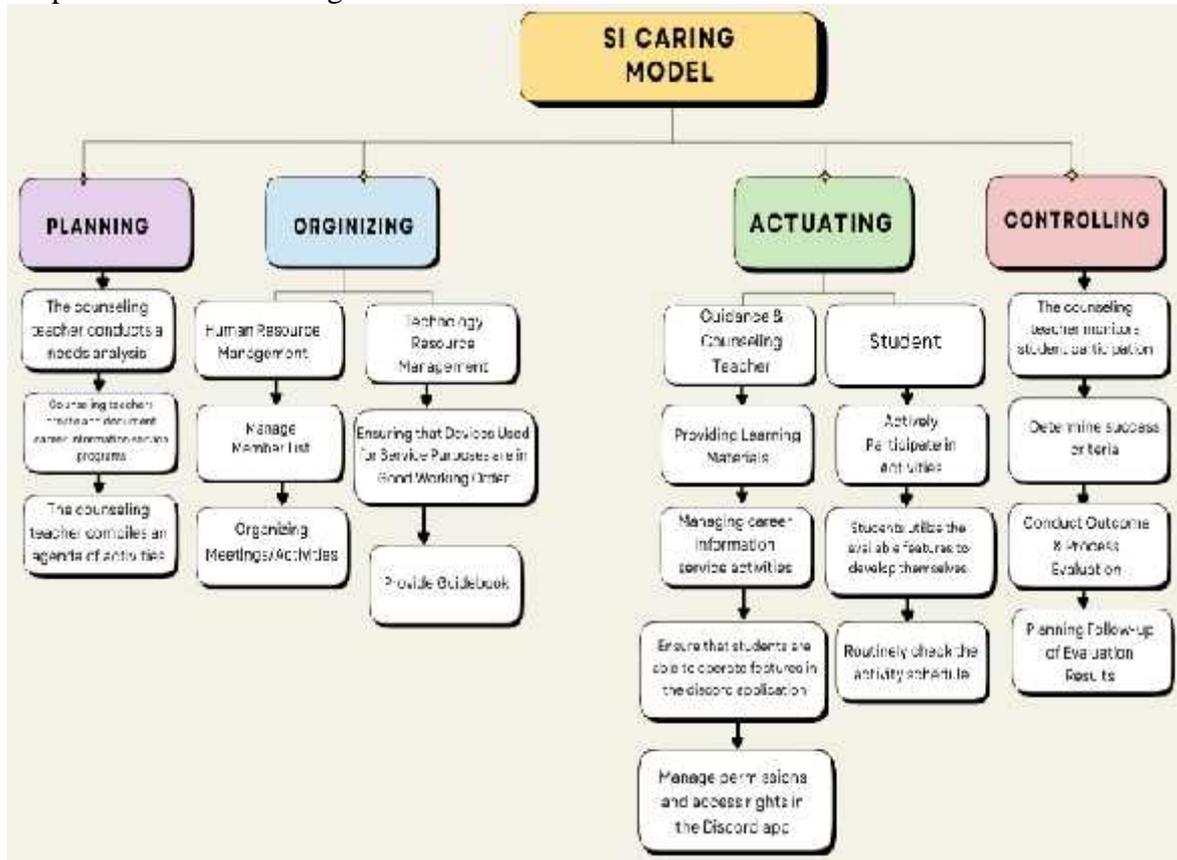
The product was developed by utilizing the ADDIE development model, which involves the following steps: (1) analysis; (2) design; (3) development; (4) implementation; and (5) evaluation (Martin & Betrus, 2019). The validation process of the research results was carried out by applying data triangulation and source triangulation methods. Qualitative data analysis refers to an interactive model, which includes the steps of data reduction, data display, and conclusion drawing or verification (Miles & Huberman, 2014). Subsequently, the Likert scale was employed for quantitative data analysis in order to establish the classification of objective criteria for the validation assessments (Sugiyono, 2018).

Results and Discussion

The explanation of the application model, formulated by researchers using the ADDIE approach method, unfolds as follows: (1) Analysis, a stage dedicated to identifying emerging problems and gathering information on the necessity for product development; (2) Design, involving a systematic process that commences with conceptualizing and structuring the essential elements for the product to achieve anticipated performance. This stage serves as a foundation and guide for subsequent phases; (3) Development, the production phase where the product, designed in the preceding stage, is brought to fruition with all its supporting components in place; (4) Implementation (dissemination), the phase during which the created product is introduced to users for socialization and testing, eliciting feedback on its performance; (5) Evaluation (improvement), the stage wherein a comprehensive assessment of product quality and performance is conducted (Satriawan, 2023; Rayanto & Sugianti, 2020).

The results of this study indicate that career information service activities have taken place at the School but only focused on class XII. The service is only carried out if there is urgent information to be conveyed about college selection as well as when carrying out talent interest tests and *try outs*. This condition also requires BK teachers to actively collaborate with other subject teachers to share information quickly through *WhatsApp groups (WA groups)*. Although career information services have been running, the absence of a routine schedule for Guidance and Counseling (BK) services, including information services, is certainly a weakness in the implementation of this service. In addition, there has been no specific programming for career information services, and no comprehensive evaluation has been carried out, both related to the program and student understanding. Based on these problems, a Discord-based "*Si Caring*" career information service management model has
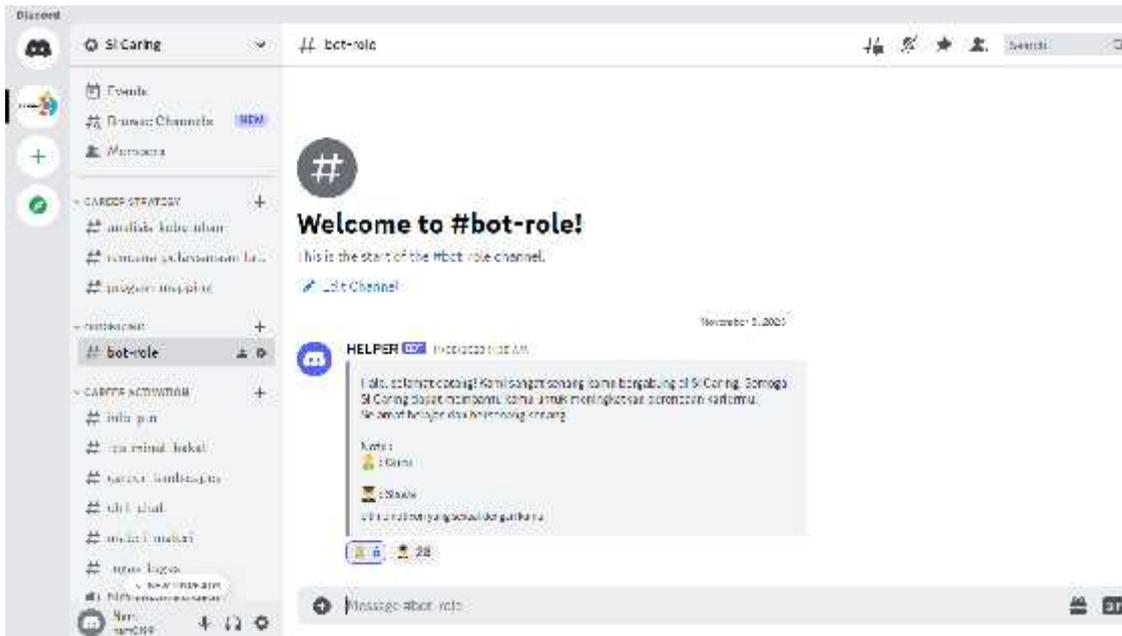
been developed to improve students' career planning skills equipped with a user guide for teachers and students. This application development model is intended for teachers and students in implementing career information service management at SMA Muhammadiyah Plus Salatiga. The discord-based *"Si Caring" career information service* management model is depicted in the following chart.

Figure 1. The Caring Model

This product was developed by detailing the scope or components of career information service management that can be managed through Discord. The main problem in the career information service management system in schools is the absence of a regular schedule for Guidance and Counseling (BK) services, including information services. In addition, there is no specific programming for career information services and a thorough evaluation, both related to the program and student understanding. These conditions can be detrimental to the management of career information services because they can reduce their effectiveness, regularity, and positive impact on students.

Based on these findings, the researcher designed a Discord-based career information service management model as a tool to improve the effectiveness of career information service management at SMA Muhammadiyah Plus Salatiga to be more optimal and effective. The following is the display on the *Si Caring* server in the discord application.

Figure 2. The Caring view

After finalizing the model design, the researcher developed a manual. The model book was created to provide a detailed explanation of the rationale and steps of the model development. Meanwhile, the guidebook was organized based on the stages in the application, starting from account creation, channel creation, *and role* setting to instructions on how to use the application for users (teachers and students). Furthermore, the feasibility of the application as a product was tested by an expert validator, especially by IT experts. Each aspect was made into a statement and filled in directly. The results were then analyzed and rated using a Likert scale. Evaluation of the validation results by IT experts is presented in Table 1.

Table 1. Recapitulation of IT Expert Validation Results

Aspects	Average		Results
Display Quality	4.8	96%	Very Good
Technical Quality	5	100%	Very Good
Guidebook	4	80%	Good
Overall Result	4.6	92%	Very Good

Based on the data in the table above, the results of the assessment by expert validators showed that the results of expert validation fall into the excellent category with an average of 92%. Thus, the application met the requirements and can be implemented in limited field trials with users. The next validation is management expert validation. The results of the assessment by management experts showed an average of 90% with a very good category. So overall it shows very good results. The results of the management expert validation analysis are in the following table:

Table 2. Recapitulation of Management Expert Validation Results

Aspects	Average		Results
Career Information Service Management	4.25	85%	Very Good
Usability Quality	4.8	96%	Very Good
Technical Quality of Use	4.5	90%	Very Good
Overall Result	4.5	90%	Very Good

Testing was conducted on teachers and students using a questionnaire instrument with a Likert scale. The data of the trial results are quantitative. The results of the teacher trial are presented in the following table,

Table 3. Recapitulation of Limited Trial Results for Teachers

Aspects	Average	Results	Category
Display Quality	4.8	96.6%	Very good
Engineering Quality	4.8	96.6%	Very good
Usability Quality Guidebook	4.5	90%	Very good
Quality	5	100%	Very good
Overall Result	4.7	95.8%	Very good

Based on the table above, the results of the trial on teachers showed very good results in all four categories, with a percentage of 95.8%. The next trial was conducted with students, and obtained results in the excellent category with a percentage of 97.5%. The data is shown in the following table.

Table 4 Recapitulation of Limited Trial Results for Students

Aspects	Average	Results	Category
Display Quality	4.8	96.%	Very good
Engineering Quality	4.9	98%	Very good
Usability Quality	4.9	98%	Very good
Guidebook Quality	4.9	98%	Very good
Overall Result	4.87	97.5%	Very good

Career planning is a key process that can be applied to prepare a series of steps that need to be taken in order to achieve goals that have been set in the future (Aminnurrohim et al., 2014). Husniah et al., in their research, revealed that overall, an increase in student career planning could be realized through the application of career information services that adopt Holland's Career Theory. By maximizing students' understanding of their career personality types and linking them to appropriate career options, students can make better career decisions. In line with the results of the study, the researcher has added an element of aptitude interest test in the developed model.

Solihah and Maesaroh (2020) conducted research because of the lack of career information obtained by MA Darul Ulum Waru Sidoarjo students. Then, the research was conducted to determine the effect of career information services based on audio-visual media on students' career understanding and showed significant results on both variables. Solihah and Maesaroh's research then became a reference for researchers in developing *Si Caring* by utilizing Discord as a communication platform specifically designed for users to interact in the form of voice chat, text chat, and video chat and allows users to share and access audio-visual-based content.

The utilization of the Discord application in developing a career information service model is based on the findings of research conducted by Dewantara et al (2020). The results of this study state that discord can be used as a media and learning tool. In this development research, researchers utilize discord which is a voice over Internet Protocol (VoIP) technology so that it can communicate in real time as a means of conducting classical guidance, groups and even individual counseling that can be done online.

This development research combines the use of Discord and *Google Drive* as storage facilities. In the research by Khairi et al. (2022), it was highlighted that utilizing the Discord application for archival purposes allows access to data from various platforms, allowing

users to access information anytime and anywhere. Additional advantages arise through the feature of adding multiple *roles*, compared to similar features in other social media. It provides the ability to set activity restrictions for each *role* so that confidential data can be well protected. In addition, the use of Discord as a storage tool is also considered an anticipatory measure against potential ransomware virus attacks on PC devices. In this research and development, the role concept is implemented with two main roles, namely teacher and student, each having a different level of freedom.

The utilization of various kinds of media in learning has been widely done, including the utilization of *Google Forms* for learning evaluation. Research was conducted by Darmawan and Falak (2019) to evaluate learning. However, there are weaknesses in this study, namely that there are still students who miss the statement items in the Google form prepared. As a solution, the researcher activates the *required* feature, which means that the user must fill in each statement item; otherwise, the user cannot *submit the Google Form*.
Some interesting aspects of the development of *Si Caring* is the application of technology in career information service management. Technological advances can finally optimize to enhance career information services. *Si Caring*, through the Discord app, is available for download through the *Google Play Store, App Store,* and its official website at https://discord.com/download, which allows users to self-learn and use the service extensively.

Conclusion
The career information service management model consists of a model image, application and usage guide. IT experts and management experts have validated this model with an average result of 92% and management experts of 90%, and the model has been tested on teachers and students with a percentage of 95.5% and 97.5%. Then, the general average is 96.5%. Thus, the results of the development of the model are in the very good category and ready to use.

Recommendation
Based on the conclusions that have been presented, the researcher suggests that each school should set a regular schedule for Guidance and Counseling (BK) services including career information services. Guidance and Counseling teachers are expected to utilize the Caring Si Model in providing career information services and create a career information service program based on the analysis of needs, then proceed to evaluate the implementation of the program. Due to time constraints, this research was only carried out up to the fifth stage of Borg & Gall. So, further research can be done to get more valid results.

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