A Design of “Postsecondary Options” Android Application for Junior High school Student

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Abstract. The purpose of this study is to develop a postsecondary option-based android application that is used by junior secondary students in determining plans for further study. Planning further studies from junior to senior high school and beyond, certainly requires a consideration. All preparations both externally (school, facilities, environment) and internally (academic ability, understanding of learning), and all of that include in postsecondary options. Postsecondary options are awareness the opportunity to obtain a career and develop experts using various abilities such as grouping careers, the ability to assess themselves, and many more. Optimizing postsecondary options can be applied in technology. The research method used is research and development, which develops Android applications based on postsecondary options in helping student’s postsecondary option. In this application, it contains information about the requirements, curriculum, job opportunities in a number of options for further study of students after junior high school and beyond.

Keywords: Postsecondary Options, Android Application, Junior High School

1. Introduction

Further study for junior high school students is one phase that must be passed. This is because current policy education system have an effect on education to evolve the tasks of school in the future [1]. Beside, the intellectual development of students and students' academic success is shown through the level of education they take and the studies they complete in each level. Every student who will complete his studies in Junior High School (SMP) will be faced with a variety of choices, whether to continue their education to high school, vocational school or take courses, find employment or unemployed [2]. The right choice for further study will affect the student's way of life. Adolescents should choose a their future based on their competence and potential [3]. So that success in student learning can be obtained. Success in learning is basically not just students receiving learning material from teachers [4]. Thus, if students are right in choosing their advanced studies, student success or student success can be obtained.

Student success can be obtained by students with optimal learning at school. This is because student success can be integrated into school programs, which have various kinds of activities to improve student
learning abilities [5]. In student success, there are various kinds of standard indicators that must be achieved which are reviewed by ASCA, namely learning strategies, self-management, and social skills. Clarified from PISA which says that individual success in learning is determined by social status in the family and in school, frequency and quality of success of learning (achievements, etc.), and relationships with teachers and learning strategies [6]. Of course, it is important to prepare for the further study of students so that further studies selected by students can achieve achievements to obtain successful study.

However, the current phenomenon, there are still many students who have difficulty determining their further studies. Choosing further studies after graduating from junior high school can be a difficult situation for students who are still in the adolescent category because adolescents have not been directed and are still dependent on outsiders such as parents or friends[7]. The paradox is that there are still many parents who are hesitant about their child's further studies[8]. This is made clear by Windarto that the choice to continue school is certainly not an easy matter because there are many factors that influence [2]. Thus, choosing further studies needs to be directed through clear specialization, so that further studies chosen by students are in accordance with the interests and abilities of students.

Specialization which directs students to make their choice in continuing their studies will certainly be very helpful in obtaining the appropriate education. Specialization means that a tendency or desire that is strong enough to develop in the individual is directed and focused on the realization of a condition by considering the individual person [9]. In addition, specialization provides an opportunity for students to be able to place themselves on a more appropriate path in order to complete the study in a directed manner, in the direction of further education [10]. Of course, choosing from this specialization needs to have things that need to be considered by students.

As for those that need to be considered in continuing the study listed in the postsecondary option which is determined by ASCA. Aspects that need to be considered in postsecondary options include, criteria for further study (high school, vocational, and MA), Requirements for entering the next level, skills needed to enter the next level, Self Development, Characteristics of school, School Strengths and Weaknesses, Tips / Considerations choose further study, career path [11]. Considerations in the postsecondary option need to be carefully planned by students.

Postsecondary options need to be formed and determined by students so that students have a clear view of the direction and purpose of their studies. Of course, developing postsecondary options can be done with a variety of things. current technological developments, making it easy to develop postsecondary option students. One of them is the Android application. This writing explains the related Android applications which are designed and developed to adjust the material which is in accordance with the indicators of the postsecondary option. There are various kinds of worksheets offered in this android application so that students can determine their further studies.

2. Literature Review

A. Postsecondary Option

1) Definition of postsecondary option

Postsecondary options are one of the standards set by ASCA. The postsecondary option itself is defined as an awareness of further choices and career opportunities and the ability to use various skills/tools in determining careers, self-assessment, and ways of learning to be able to develop self-sufficiency and ability [11]. However, this postsecondary option is needed in determining further studies from students. In addition, postsecondary options have competencies that students need to have by conducting activities or fulfilling tasks based on existing indicators. The following are competencies and indicators in postsecondary options:
In a simpler way, postsecondary option in broad outline is understanding and sensitivity of students to be able to map school criteria (school level), understand the requirements to enter the next level, develop skills needed to enter the next level, develop self potential, understanding the characteristics of the school, understanding the strengths and weaknesses of the school, and having the consideration of choosing further studies, and understanding the career path of further studies. Each component is described in the following table:

### Table 1. Main Subjects of Postsecondary Option

| Subjects                               | Description                                                                 |
|----------------------------------------|-----------------------------------------------------------------------------|
| School Criteria                        | Student will think about school criteria, that include location of school, Achievements, Extracurricular activities, and facility of school [12]. The criteria of some school that student know, will make student choose the best criteria for themself. |
| School Entry Requirement               | This subject talk about school cost, because student will looking for the quality school with lower level of tuition of fees or high lively of tuition [13]. Because every quality school will take a high level of tuition |
| Skill Development                      | There is five skill that need to improving, Emotional (Neuroticism), Extraversion, Openness, Conscientiousness [14]. |
| Self Potential Development             | The school that student choose have to improving student’s potential in cognitive, emotional, and creativities [15]. |
| Schools Characteristic                 | Characteristic more talk about what type of school and the purpose of the school. For example, vocational school more concern to train student’s skills for future career, and entrepreneur [16]. |
| Advantage and Deficiency of School     | This subject more talk about output and quality of education. Output of school will shown the quality of the school itself [17]. |
| Consider The school That Chosen        | Considering the school that student chosen, is fully action by student, but external factor (parent, environment, ect) just support the considering of student [16]. |
| Understand Career After Graduate The School | This subject more talk about future role and position of working in real life. Career is position of work, role, activities, and experience that will people get [18]. |
2) Factors of postsecondary option

Postsecondary options can be influenced by various factors. This is because in determining one's choices can be influenced by internal and external sides [19]. Postsecondary options which help students in determining further studies, of course, emphasize the choice of students themselves, and those choices can be influenced by internal or external factors.

Factors that influence postsecondary options include, for example, family, environment or economic factors. This is reinforced by Finnie who said that factors that affect postsecondary options, such as employment opportunities, family finances, family background, other influences (preparation, perception, and choice of education), etc. [13]. In addition, factors such as how to study, school recommendations from counselors, information factors, geography and other factors can influence postsecondary options of students [19]. Thus, these factors also become a part of postsecondary options which can influence students' thinking and choices.

B. Android

Android is the platform on which to develop applications. Each creator can design content and content according to their wishes. It is a very popular operating system developed by Google [20]. In Indonesia, it is used by 94% of smartphone users [21][22]. Android provides an open platform for developers to create their applications [23]. Thus, Android can be developed and adapted to the needs and desires of creators.

As for designing android applications can use various kinds of software, one of which is the android studio. Android Studio is a legal and integrated environment in developing Android platforms [24]. With Android Studio software, creators can customize the content and content of the Android application that they want to develop.

3. Research Method

The method used is Research and Development. This research doing in several stages. In this study, we are still in the stage of the design and concept. Then, after making the design and concept, we will resume at the stage where our application development using an application android studio to create applications. Then we do early trials and mass trials continue.

4. Result and Discussion

C. Desain Postsecondary Option on Android Application

The development of postsecondary options is done in stages from material collection to initial design. As for the Android system development, it is done using Android Studio. The main points in the development of this application are content, material content and worksheets, as well as the compatibility of aspects of postsecondary options with users.

Users of this application are junior high school students, who at this time junior high school students are more interested in the simple, attractive design of Android applications. Therefore, the designs made in this application are designed in such a way with various colors and simple words to be easily understood. The following is the initial design of the application to be developed:
Figure 2. Design postsecondary option android application

Part of this application consists of several parts which consist of Initial view, Main Menu, Material, "Plan", Profile. In the cover, section consists of the display and cover of the application that has a start button to start. Then in the main menu, there are three main buttons. In the "plan" menu button there are several submenus which consist of 3 components from postsecondary options, and each has an indicator. In these indicators, there are several activities such as planning what becomes a topic, making choices and so on.

Then the material section contains simple material about the main subject of the postsecondary option. There are eight subjects explained systematically, and can be obtained by young people. Options from the subject offered in the form of several buttons so that each student can choose which one is learned first.

The last is the profile of students. This profile contains the targets, achievements and desires that will be achieved and obtained for the further study. As for here what is seen is a component of postsecondary options with predetermined targets. Thus, it is expected that the design of this application can match the characteristics of junior high school students.

5. Conclusion

The selection of further studies for junior high school students is one of the fundamental things in shaping the future of junior high school students going forward. This is because further studies chosen by students will determine the direction and purpose of the work and the direction of his future life. Of course, in determining further studies from the next junior high school students it is necessary to pay attention to various kinds of careful consideration and pay attention to various factors.

The postsecondary option is one standard which can help students in determining the direction and purpose of further studies. Of course, the postsecondary option needs to be considered. There are various
kinds of factors and components that need to be considered. In addition, it is necessary to also pay attention to the factors that influence the postsecondary option.

As an effort to develop postsecondary options for junior high school students, technology can be one way that can be used to develop students' postsecondary options. Through the Android application, components and material from postsecondary options can be adjusted in the Android application. Thus, it is expected that junior high school students can develop postsecondary options and be able to determine their future studies in the future. For further research, it is expected that this design can be made an initial prototype for the development process.

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