Career Information Services by Using Interactive Multimedia to Determine Students Career Choices

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Article Info

Abstract

This study aimed to determine the effectiveness of career information services by using Android-based interactive multimedia to help to determine students' career choices. Meanwhile, the method used was experimental research using One Group Pre-test – Post-test Design. For more, the subjects of this study were chosen randomly (using random sampling) from 35 students of the Tenth Grade Level or Class X of Senior High School (SMA) 1 Kudus. The hypotheses of this study which were tested by using t-test paired samples showed that there was an improvement in students' career decision making ability. It was proven by the data before they learned the Android-based interactive multimedia (M = 86.89; SD = 19.76) and after learning the Android-based interactive multimedia (M = 109.71; SD = 11.36; $t_{(35)}$ = -9.328, p < 0.05). These findings conclude that Android-based interactive multimedia is effective to improve the ability of students' career decision making on career information services given to the Tenth Grade Level students of SMA 1 Kudus. Also, this study clarifies that the career information services by using interactive multimedia are applicable to students in career decision making.

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INTRODUCTION

The 2013 curriculum gives chances to students to develop their abilities, talents, and interests widely and openly based on individual difference principles. The structure of this curriculum provides (1) obligatory subjects for all students in one education unit in each unit and level of education, and (2) elective subjects which are chosen by students in accordance with their interests. Both obligatory and elective subjects are compiled in the curriculum structure of secondary education (SMA/MA and SMK/MAK), while elective subjects are given to students of secondary education (15-18 years old) consisting of academic (SMA/MA) and vocational (SMK/MAK) electives. On the one hand, guidance and counseling subject helps students to understand, accept, and direct themselves, make self-decisions and realize their decisions responsibly. The specialization program in the implementation of 2013 curriculum can be grasped as advocative and facilitative efforts for the development of students to make them able to develop their self-potential so that the optimal development is achieved. Specialization is a process which involves a series of choices and decisions done by students according to their understanding of self-potential and opportunities exist in their surroundings.

In general, the process of career decision making is a process of deciding career choices from several alternatives based on self-understanding and career understanding (Hartono, 2010). The use of social-learning approach theory in career selection has been pioneered by Krumboltz, Mitchell & Gelatt (1975) in Putra, Gumilang & Rakhimi (2014), that this theory is an effort to simplify the process of career selection, mainly based on life events which affect the determination of career choices. Skills in determining career choices are very important for students because they are required to have maturity in determining their career choices. Meanwhile, decision-making skills include the ability to (1) identify options, (2) identify possible outcome of choices, (3) consider the pros and cons of choices, (4) identify alternative results, and (5) choose options that are not only biased but are likely to get what is wanted (Ferguson, 2007).

Psychologically, the age of high school children is entering adolescence. According to Hurlock (2006), the adolescent period happens at the age of 13 to 16 years old, and the end of this period starts from the age of 16 or 17 to 18 years old. At this time, there is a transition from early adolescence to late adolescence which causes them to prefer to be considered as an adult. They are no longer children but have not become adults yet. As a result, this period is fluctuating that adolescents must face many problems, challenges, and confusion in the process of finding identity and position in society. These phenomena are responsible for the behavior of some adolescents who experience uncertainty when they look for position, identity, and do the decision making for their future, especially after graduating from high school.

The identity discovery process is important for students in order to achieve their developmental tasks. Havighurst states that one of the developmental tasks that must be achieved by an adolescent is being able to choose and prepare for a career (Yusuf, 2011). The development task is important for adolescents so that they can plan careers that are able to support the future.

If identified more thoroughly, the initial source of a career problem is the lack of students' skills in deciding a suitable career for their educational journey. It becomes one of the determinant factors which makes students often face problems either in the beginning or in the middle of their career. At the beginning of career choice, the most often problem arises is a dispute with the environment and friends due to differences of opinion and uncertainty or doubts in determining the right choice. Moreover, in the middle of career (where education process takes place), the thing that happens is the less adaptive action in understanding various demands from the environment so that one will get difficulties in facing the available tasks. In addition, problems which are commonly found in students' career decision making are some limitations within

students when making some decisions such as limited knowledge and alternatives, a limited environment where one lives in making a decision, and decisions which are limited by things that individuals want to do.

Counselors can direct and guide students in deciding their career direction based on their talents and interests. That is why counselors are needed to give counseling services to students in deciding their career direction. The services are in form of giving information about career direction which is in line with students' abilities, talents, and interests. This is in accordance with what is stated by Hadiarni (2009), regarding the concept of Super, namely: "career decisions are influenced by several factors, including factors contained in the individual himself which are related to talent, interests, abilities, attitudes, intellectual abilities and various other potentials. Also, factors coming from outside individuals such as family socioeconomic level, environmental demands, developed cultures, opportunities for available jobs."

Based on the preliminary research done by the writers at eight state and private senior high schools in Kudus Regency, namely SMA 1 Kudus, SMA 2 Kudus, SMA 1 Bae, SMA 2 Bae, SMA 1 Gebog, SMA 1 Mejobo, SMA NU Al Ma'ruf, and SMA Masehi, it was known that the process of guidance and counseling services was still done by using classical method consisting 1 meeting in a week lasted for 45 minutes. Additionally, the most often used method for information services was lecturing because, through this technique, students felt easy to understand the information they received. Alternatively, the most frequently used medium was Powerpoint. However, when the counselor keeps using Powerpoint all the time, it will be less effective and interesting.

Therefore, there is a need for feasible learning strategies and counselors' creativity. These can be realized by using interactive multimedia as one of the innovations which can be used to deliver the materials of information services. The use of this medium can generate huge motivation and curiosity by students, even brings psychological influences on students.

The implementation of Guidance and Counselling services programs in SMA 1 Kudus was arranged based on the results of IKMS (The Identification of Students' Needs and Problems) distributed by counselors to be fulfilled by all students based on their condition. The results of IKMS showed that students were unable to do career decision making after graduating from SMA. For more, counselors concluded that students have already owned interests to build up their future careers, but have got not enough knowledge on their future study and work opportunities to reach their dreams.

One way to improve students' career decision-making ability is through career information services which belong to the guidance and counseling services provided by the school. There are various models of career guidance services for decision making. When relating to the computer basis, currently, there are a lot of programs developed to help students in career guidance services. This is proven by Murdiyanto, Purwanta & Kamaruddin study (2017) that blog media-based career information is feasible to be used by students to improve their career exploration. Similarly, Zamroni, Sugiharto & Tadjri study (2014), argue that interactive multimedia of career guidance is proven effective in improving the ability of career decision making.

Technological development allows students to access unlimited information from various parts of the world. The advanced development of technological science allows students to explore various information and interact directly with various kinds of information that exists in cyberspace (internet). The information obtained can be used as a means of enriching insights for students to live their daily lives. However, there is also information which makes students more confused in determining the direction of their lives in the future.

In the journal of Erişti & Belet (2010), it is known that interactive learning is one of the technological facilities commonly used in the learning process. Interactive learning media can influence positive learning processes so that students will be more interested in using motion

videos, audio, visual and games in learning. As a result, the attention of students in the learning process is better.

Computerization in guidance and counseling services has been developed in recent years. In the journal of Palomba (2007), it is explained that the use of Information Communication Technology (ICT) can help counselors in carrying out career guidance services for counselees. In other journals (Cogoi & Liso, 2008), the main discussion is to provide career guidance services to develop careers with the help of ICT media. Furthermore, Walter (2008), has reviewed the use of CD-ROM-based media to help with family problems. In addition, there are many more journals on guidance and counseling that discuss the use of ICT to help the process of better guidance and counseling services.

The career information services program by using interactive media which will be created uses Android-based application that allows pairing of various gadgets with no internet access. Further, this application can also attract students' interest since the display can be modified based on what counselors want and pay attention to quite high artistic values. Another advantage of using an android program is its ability to be applied to various gadgets owned by students such as smartphones, cell phones, tablet PCs, i-pad, PCs, and notebooks. This allows all students who have adequate gadgets to use the program anywhere and anytime.

The use of gadgets owned by students makes it very easy for them to interact through social media, such as Facebook, Twitter, Line, WhatsApp, BBM, and so on. Dunn (2013), teaching and learning methods must be able to meet students' expectations and offer dynamic and appropriate learning. When these demands are met, the teaching and learning can get several benefits, among others, can increase student motivation and follow learning materials, increase collaboration between students, facilitate interaction between students and teachers, easy and quick information delivery.

The use of multimedia has advantages, namely make students have diverse experiences of all media and can eliminate their boredom because the media used are more varied. Meanwhile, the shortcomings in multimedia are quite expensive and require careful planning and professional personnel (Nursalim, 2013).

In 2000, there were frequent discussions about the counseling profession using innovative tools (such as the internet, computers, television, and various other audiovisual equipment). This can be observed from a large number of articles addressed in counseling journals, seminars, expansion of internet-based counseling practices, and changes in counselor preparation programs (Hohenshill, 2000). These indicate that counseling needs to be developed by using interactive multimedia.

ICT can be utilized as a medium that can be used by students to help determine career interests because they have not been able to understand or assess themselves; for example, students do not know what talents they have, what interests they like, subjects they like and academic achievements that can support future careers. If these things are left unchecked, this will lead to a problem that hinders the career planning of students. Besides that, there exists a gap where students should be able to plan their careers but in reality, students still cannot plan their careers. Therefore, it is expected that the problems experienced by students in career planning can be immediately eradicated. This is where Guidance and Counselling (BK) teachers can provide career guidance services, so students are not confused about planning their career.

Zamroni, Sugiharto & Tadjri (2014), reveals that interactive multimedia used can be used by students at the Junior High School (SMP)/Islamic Junior High School (Madrasah Tsanawiyah) level and have not directly demonstrated student career choices. In this study, information services were delivered to students using interactive multimedia in the form of an android application which can be accessed by every Senior High School (SMA)/Islamic Senior High School (Aliyah) level students in determining their career choices after graduating from school.

The development of career information services by using interactive media was realized as an effort to make the time used for guidance services efficient. With the programs that can be run by students themselves through various gadgets that are owned, counselors only play a role to help students who have difficulty understanding certain aspects of the content provided. Through interactive multimedia-based career guidance services, students are expected to be able to process various information obtained through interaction with the program, so that it can support career decision-making skills.

Based on the aforementioned background, the identification of the problem in this study was focused on the less optimal implementation of career information services to determine career choices for class X students of SMA 1 Kudus. This was due to time constraints in conveying career information, students desperately needed various information to determine career choices for its future. They also had difficulties in understanding their abilities to make career choices, and the need for an innovative and easy career information services program which is accessible from students' devices, such as cell phones, smartphones, tablets, i-pad, computers, and notebooks so as to facilitate students in determining career choices.

The scope of the problem examined in this study did not cover all areas of guidance and counseling, but included two things, namely career information services by using interactive media model and career decision making skills. This study aimed to analyze the implementation of career information services in determining the career choices of class X students of SMA 1 Kudus and find out the effectiveness of the implementation of career information services by using interactive media to determine career choices of class X students of Kudus 1 SMA.

METHODS

The product tested in this study was derived from the development of interactive multimedia-based career information services to determine the career choices of class X students of SMA 1 Kudus. Furthermore, product trials were conducted to test/assess/weigh the developed model as an effective model of guidance and counseling services to use in schools.

The research design used was the One Group pre-test – post-test design research design. The research sample was used as an experimental subject which was given a treatment in the form of interactive multimedia to determine students career choices, namely to determine the effectiveness of the treatment to the improvement of the needs of students' career information services. The criteria of the subjects of this study were students of class X and attending the SMA Negeri 1 Kudus. Meanwhile, the research subjects were taken randomly, with a sample of 35 students.

Before the treatment was given, the writers conducted a pre-test to determine the students' initial conditions in determining their career choices. Then, the writers provided treatment in form of career information services using Android-based interactive multimedia. In the final step, the researcher conducted post-test to determine the student's final condition in determining career choices.

The Android-based interactive multimedia is suitable for students at the high school level, and can be accessed if you have downloaded the application of Guidance and Counselling service at www.sma1kudus.sch.id. If it is successfully installed/downloaded, there will appear "BK SERVICE" (figure 1). In this medium, there are 5 menus (figure 2). On the SK/KD menu, there will be an explanation about the competency standards and the basic competencies to be achieved (figure 3). Next, materials about the division of universities in Indonesia (figure 4). After that, the next display is a questionnaire or quiz that must be done by students (figure 5). The last part is a bibliography (figure 6).

Figure 1. The Display of The Application Shortcut on Android

Figure 2. The Display of The Main Page of The Services

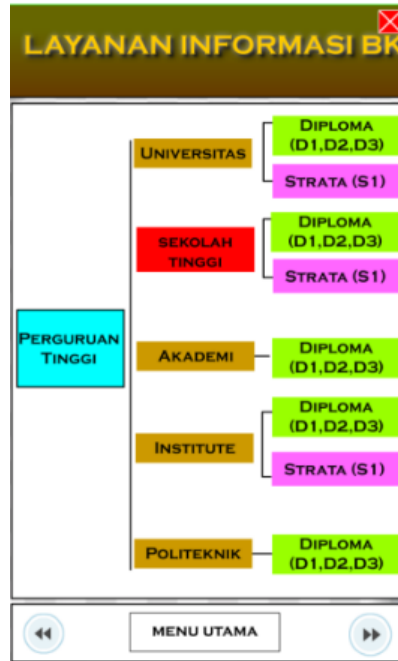
Figure 3. The Information for of SK/KD

Figure 4. The Display of Universities Menu
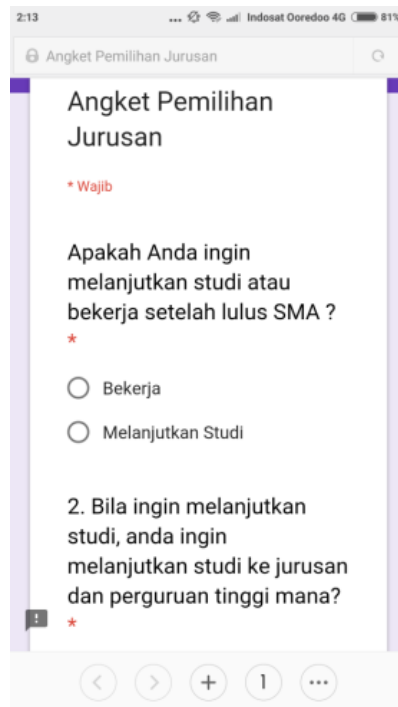

Figure 5. The Display of The Questionnaire

Figure 6. The Display of Bibliography

RESULTS AND DISCUSSION

The results showed that there were significant differences in the needs of students' career information services before and after the use of career information services by using interactive media with an average of 109.71 greater than 86.89. These indicate that the use of career information services by using interactive media to improve students' understanding of the materials contained in it could increase the career information service needs of class X students of SMA Negeri 1 Kudus.

Table 1. The results of the t-test of the Need for Career Information Services by Using Interactive Media

	Mean	SD
Pre-test	86.89	19.763
Post-test	109.71	11.359
t	-9.328	
p	0.01	

The average analysis results from t-test are presented in table 1. Based on table 1, it is known that there were significant differences in career information service needs between Pre-test and Post-test with $t_{(35)} = -9.328$; $p < 0.01$) where students 'career information service needs in the

posttest were higher than the pretest with an average of 109.71 greater than 86.89.

These interactive career information services by using interactive media could be accepted by students because it could give them information easily in which the materials which were usually obtained only when classical services in the classroom, now can be obtained anytime outside Guidance and Counselling hours. The information services obtained by students using android contains materials, videos, and explanations directly to the website of the desired universities.

The results showed that there were significant differences in the needs of students' career information services before and after the use of interactive multimedia-based information services using android. These results indicated that the use of career information services by using interactive media to improve students' understanding of the material contained in it can improve career information service needs in determining career choices for students of class X SMA 1 Kudus.

The improvement in career information service needs in determining career choices for class X students of SMA Negeri 1 Kudus was caused by the amount of information obtained by students through materials, videos and direct explanations to the website of various universities in it. As a result, the improvement in students' understanding of information about careers after completing high school education would help them determine the choice of career to continue studies. For more, the career information services by using interactive media to determine career choices of students had the purpose of easing access of information, utilizing the internet and the advancement of technology positively, providing new knowledge for school counselors and counselees in a concise and interesting manner.

The results of this study are in line with Anisah research (2015) that career information service models can improve students' career planning. The same also goes to Atmaja research (2014), on efforts to improve students' career planning through career guidance with the use of

media modules with the results that there is an increase in career planning through career guidance with the use of module media in students of class XII Science 2 MAN Wonokromo Bantul. Other supporting studies come from Fasha, Sinring & Aryani (2015) about the development of e-career models to improve the career decisions of students of SMA Negeri 3 Makassar. This study obtained the results that the application of electronic media-based career information service model (e-career) is effective in improving student career decisions.

Therefore, the improvement of ability to determine career choices of class X students of SMA 1 Kudus was as a result of the career information service with Android-based interactive multimedia model where the career decision making process is a process of determining career choices from several alternative choices based on self and career understanding (Hartono, 2010). Skills in determining career choices are very important for students because they are required to have maturity in determining their career choices. Decision-making skills determine the ability to (1) identify options, (2) identify possible outcomes, (3) consider the pros and cons of choices, (4) identify alternative results, and (5) choose options that is not only doable but also are likely to get what is wanted (Ferguson, 2007).

The increasing needs of career information services that have an impact on increasing the ability to determine career choices for students of class X of SMA 1 Kudus were indicated by the increase in understanding of students' development tasks, understanding of the potential of students' abilities, career direction and conditions, improvement of career development attitudes and abilities in the future, increase in the development of attitudes and abilities to achieve economic independence, increase in the development of positive attitudes towards marriage and family life, increase in the ability to identify career opportunities that exist in the community, developing positive attitudes towards the world of work, and planning career life.

CONCLUSION

Based on the results of data analysis, it can be concluded that interactive multimedia-based career information services are feasible to be implemented in the process of guidance and counseling activities to determine the career choices of students of SMA 1 Kudus. It is also expected that counselors or mentoring teachers to be able to implement Android-based interactive multimedia information service because this model has been proven to be effective in determining student career choices. At last, the future researches are expected to develop and enhance Android-based interactive multimedia in the form of interactive games so that it will be more attractive to students in the adolescent period.

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