

The Effectiveness of Interactive Multimedia to Improve the Career Planning Ability of Junior High School Students

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Abstract

This research aims to improve the ability of junior high school students' career planning by using interactive multimedia. The experimental research method used the design of one group pre-test and post-test with purposive sampling technique to determine 27 subjects of the Junior High School class IX students. The results of the research were obtained further planning career of class IX students of Public Junior High School 3 Cepu, before using guidance media (pre-test) the mean value was 109.74 with SD 3.84 and an increase in the mean posttest 153.33 with SD 3.12. The results of the t-test show that interactive multimedia is effective to improve the career planning skills of Junior High School students ($t_{(27)} = 12.58, p < 0.01$). This finding confirms that interactive multimedia can be applied to improve Junior High School students' career planning.

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INTRODUCTION

The unemployment problem is experienced by all countries, both developed and developing countries, including Indonesia. The number of the workforce that is not comparable to employment opportunities in Indonesia makes Indonesia have the number of open unemployment in Indonesia according to data from the Central Statistics Agency in August 2017 reaching 5.33%, and 58.35% of the population working on informal activities (BPS, 2017). Even information from job vacancy companies in Asia, Jobstreet.com has data on the number of job seekers in Indonesia, there are at least 16 million active job seekers in Indonesia (Jawa Pos, 2017)

Sondari (2014) said that entrepreneurship activity is believed to be a means of boosting economic growth and a way out of the unemployment problem.

However, the number of young entrepreneurs in Indonesia is only about 3.1% of the total population (Kompas, 2017). Whereas in consensus, a country can advance, ideally having entrepreneurs as much as 5% of the total population that can be a competitive advantage of the nation. The birth of entrepreneurs means that many jobs are created (Danunhadimedjo, 1998). The creation of employment opportunities will have a positive contribution to alleviating unemployment and poverty. In reality, people's interest is still low to become an entrepreneur. Even the community's perspective on a career as an entrepreneur is still negative. Paradigm and parents' belief in success is still conventional, namely after completing high school level education, then college and after graduation, it is expected that the child will get a job in a particular company or office. This is also in accordance with Darwanto's opinion (2012), the concept of completing education than working well has been embedded in students' perceptions so that many of the academy graduates are not interested in becoming entrepreneurs.

On the other hand, the condition of the Indonesian is not conducive to produce quality entrepreneurs. According to Mulyani (2011),

Entrepreneurship education in each education unit starts in Early Childhood Education Programs - Senior High School/Vocational High School, needs to be implemented immediately. But in reality, the education in Indonesia has just introduced entrepreneurship at Vocational High School level.

Becoming an entrepreneur is not an instant career journey but requires careful planning. Planning and choosing a career that suits you is important because one's career will determine various aspects of his life (Sukadji, 2000). In adolescents, career planning and selection is the time to direct yourself to a new stage in life, see their position in life and determine the direction to be addressed. A field of work is usually supported by certain education programs.

Junior High School students are students in the age range 12-15 years or have entered their early teens. Adolescence is a period of transition from children to adults. As individuals who are undergoing a transition process, adolescents have developmental tasks that lead to their readiness to fulfill the demands and expectations of roles as adults. One of the career development tasks that must be mastered by Junior High School students is being able to understand, choose, and determine further studies. During this time there were many changes in several aspects that were interconnected, both in physical, cognitive and psychosocial aspects (Papalia, Olds & Feldman, 2001). This period is a period that is classified as critical where individuals must begin to seriously think about their future, including career problems.

Junior High School students still have a poor understanding of their dreams, career choices in the future. Even Junior High School students still lack knowledge about advanced research options. Most of the Junior High School students choose the secondary school because the parents are decisive, as long as they choose further research, not even a few choose a high school based on the choice of many friends, without considering the choice accordingly or not for the future. This makes students not have a strategic effort from an early age to achieve career goals or aspirations.

In the next level, Junior High School students will immediately determine the majors that are suitable for their fields, both at Senior High School and Vocational High School level. In order to avoid wrong majors, students must have career information and make a career plan. This is confirmed by the opinion of Holland in Nauta (2010) which states that career planning is very important for students in preparing their careers later by considering their talents, interests, and economic abilities. In addition, career planning directs students to focus on achievement and help formulate strategies and things needed to achieve career goals.

Counseling guidance is an integrated part with educators aimed at all individuals, whether problematic or problematic. Counseling guidance has the aim that individuals are able to help themselves in optimizing all potential and alleviating the problems faced, especially related to career planning. One of the guidance and counseling services that can be done by counselors to help improve student career planning is career information services.

Based on the results of an interview with a counselor at Public Junior High School 3 Cepu using the interview guideline instrument, it was obtained the results that information services provided to students were only information through lectures, less innovative in their implementation and not using multimedia so students were less interested in the service. The explanation above can be seen that the role of career information services is no less important than the other types of counseling guidance services. Benefits gained by students with the new understanding of career information service material, broad-mindedness, having an action plan and able to make career planning.

The results of Trusty's, et al. research (2004) found that students needed effective career planning education for junior high school students. Effective career planning education is intended to assist students in education and career development.

Individual career planning processes provided through career information services, especially advanced studies, are seen at the

exploration stage. In general, adolescents begin to apply the choices they think at the tentative stage. They weigh several possible career choices or further studies that they consider appropriate to their talents, interests, and values. However, they have not dared to make decisions about further studies after they graduate, the most appropriate. Information about the further study to Senior High School or Vocational High School that they obtained only came from various media and presentations from various parties who told about the further study to a higher school.

Career terms according to Crites (Suherman, 2011) felt more contemporary, showed and included the developmental nature of decision making as a process that lasted a lifetime. Career knowledge has an impact on readiness for career planning that will have a significant influence on one's future education and employment. Therefore, the implementation of career information services is expected to be carried out by the counselor creatively in the presentation of service materials.

Computer-based information media is identical to the combination of various media elements involved in it. Today's technological sophistication has presented a combination of image, sound, animation, graphics, text, and so on as a package that can be presented simultaneously. The combination of various media elements is called multimedia, and researchers recommend interactive multimedia as a solution to the problems above.

Various advantages of interactive multimedia can overcome the limitations of information media methods and tools that have been applied in the research location. Interactive multimedia can overcome the problem of limited time for school counselors in providing information services to students because interactive multimedia allows users to access information presented independently. Interesting appearance of the material presented is an important factor for students in their teens, because the appearance of interesting material will increase students' interest in listening and digging up information. Interactive multimedia is equipped with features that are able to process the

display to be attractive with a combination of color composition, text form, graphics, animation, and other supporting media such as images and sounds.

Obi research (2012) explained that the use of ICT can help counselors in implementing career guidance for counselees. This research also shows that this technological era is the time for guidance and counseling services to use information technology a lot. This research shows that career counseling services are more effective with ICT assistance to make career decisions. The research was also supported by research conducted by Zamroni, et al. (2014) shows that interactive multimedia has proven effective in improving career decision-making skills. The research supports research activities that researchers do in utilizing information technology as a service medium.

Based on some of these studies, it can be emphasized that multimedia is a presentation media using computer software that can display and produce images, graphics, animation, and sound as well as allowing humans to interact directly and indirectly (through facilitators) to observe and obtain useful information. In this case, several things that are directly related to the use of multimedia are the existence of computers, programming software, and humans both as users and as facilitators. Guidance media are important in guidance and counseling services. In particular, guidance media that is integrated with ICT is important to assist students in student career planning.

METHODS

This experimental research uses one group pretest-posttest design. The pretest is done to find out the initial conditions of Junior High School student career planning. Then proceed with the provision of career information service treatment using interactive multimedia as many as 9 meetings. The last step the researcher conducted a post-test to find out the final condition of students' career planning abilities. Figure 1 shows the flow of research experiments.

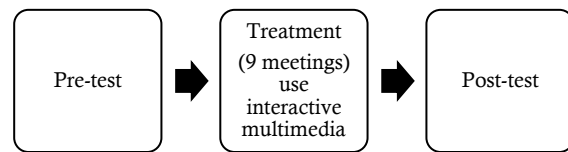


Figure 1. Experiment Flow

Figures 2 through 8 are interactive media displays that are used to improve the career planning of Junior High School students.

The Career Information Menu contains "After Junior High School Where Do You Want?" shown in Figure 3. This menu presents several choices, such as Senior High School, Vocational High School, Work, Course, and Military Education.

Figure 4 shows the information study Program and Career Prospects after Senior High School. The content is displayed about the information of study programs at Senior High School, as well as advanced colleges after Senior High School.

Figure 5 shows a menu about information study Program and Career Prospects after Vocational High School. The information contains 141 Expertise Programs at Vocational High School along with school locations throughout Indonesia. As well as displayed higher education that can be taken by students graduating from Vocational High School according to student choice.

Figure 6 about information on several options for entering military education along the education's time.

Figure 7 contains the Career Interest Test Menu. In this Menu students start the test by writing down their respective names, choosing statements according to their own circumstances and can see the results of the career interest test immediately after completing the test.

Figure 8 shows the Success Story of Figures from various levels of education in the form of videos and stories. Interactive multimedia is made in the form of an application for personal computers, which is used as a media counselor in providing classical information services.



Figure 2. Main Menu

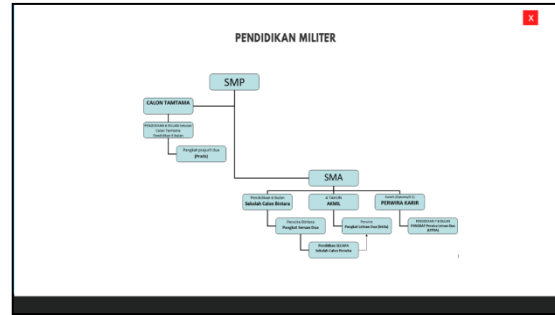


Figure 6. Information on Military Education

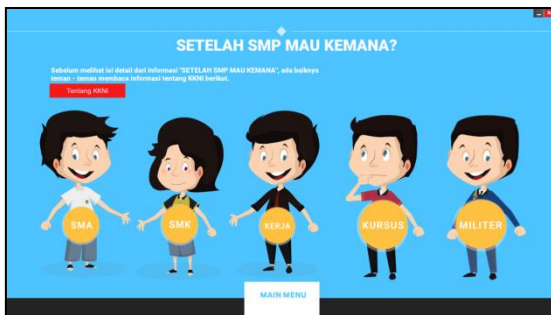


Figure 3. After Junior High School Want Where?



Figure 7. Information on Career Interest Tests



Figure 4. Information on Study Programs and Career Prospects After Senior High School



Figure 8. Success Story of Entrepreneur Figures from Various Levels of Education

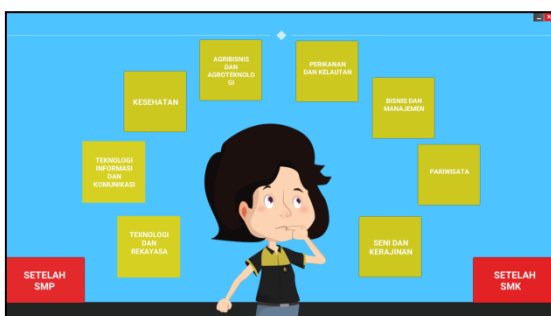


Figure 5. Information on Study Programs and Career Prospects After Vocational High School

The subjects of this research were students of Junior High School 3 Cepu grade IX in the academic year of 2017/2018. A total of 27 class IX students were selected by purposive sampling technique with criteria for career planning skills in the low category.

The techniques used in collecting the data are using a career planning scale consisting of 46 items. Based on the validity and reliability test of item items, it is known that the initial career planning scale amounted to 50 items, 46 items were declared valid with a range of r_{xy} of 0.502 – 0.923 and 4 items were declared invalid. The results of the calculation of the reliability test of

the career planning scale with the Alpha formula obtained the reliability coefficient of 0.984.

RESULTS AND DISCUSSION

Analysis of the average pre-test results of the student career planning level was 109.7 with SD 3.84 and an increase in the mean posttest 153.33 with SD 3.12.

Table 1. Changes in Meaning of Student Career Planning

	Mean	SD
Pre-test	109.74	3.84
Post-test	153.33	3.11
$t_{(27)}$	-12.58	
p	< 0.01	

Table 1 shows that the level of career planning for Junior High School students changes in development between before and after using the interactive multimedia. Based on paired t-test analysis, it was found that the career planning ability of Public Junior High School 3 Cepu had an increase ($t_{(27)} = -12.58, p < 0.01$). This finding indicates that interactive multimedia can be applied to improve career planning for Junior High School students.

Guidance media are important in guidance and counseling services. The use of multimedia helps students to understand the material, it is important to achieve the guidance's goal that is to help the students to achieve the optimal development. This result is in line with Obi's research (2012) that ICT integrated with career counseling given to Junior High School students, to helps students in finding and deciding career choices. Based on these findings, this research developed an interactive form of multimedia to improve career planning as an entrepreneur students of Public Junior High School 3 Cepu.

In this case, the needs needed by students are various information related to career planning. Information quality in interactive multimedia influences career planning. The better the quality of the information, the more appropriate decisions will be taken (Istianingsih & Wiwik, 2009). Glassberg, B. C., Grover & Teng (2006) suggested that information quality affects the affective component (user emotions,

feelings of satisfaction/dissatisfaction, mood, and evaluation of users such as likes/dislikes). This is reinforced by the existence of UCA assessment results (understanding, comfort, action) where students state that feeling satisfied, happy, helped and interested in interactive multimedia because students get various information about various types of education after Junior High School and career choices that support to become an entrepreneur. This is relevant to this research, the quality of interactive multimedia information is proven in a very good category so that it helps students improve their career planning.

In addition, the assessment in terms of the quality of interaction is in a good category because the interactive multimedia menu is available "Career interest test" by including the results of the test in accordance with the personality of students so that students are able to help students to know the career direction that suits them. The quality of interaction is considered important in an interactive multimedia because it facilitates two-way communication with its users (Fan, Lee & Kim, 2013).

Self-assessment is important for students as a basis for consideration before they plan and even make decisions for their career. Permadi (2016) argued that self-assessment is the foundation for all career planning, individuals must know what they want, interests, abilities and personality characteristics. Self-assessment becomes the main and fundamental thing in one's career planning.

The effectiveness of interactive multimedia on improving career planning is also stated by Haberstroh, et al. (2009) that career information services provided through virtual counseling in providing various information related to their career planning show rapid career development. Multimedia is used to support the performance of counselors and as a medium to understand their advanced study career planning. Interactive multimedia can be utilized as a medium for schools that do not have hours of counseling guidance and capacity of counselors who are unable to serve the needs of students so that the

implementation of career information services can run optimally. From this research and conducted by researchers, interactive multimedia provides convenience to counselors in providing various important information related to careers.

The effectiveness of interactive multimedia to improve career planning has implications for counselors. In this case, the counselor should be able to fully support student career planning in accordance with the needs of students, especially in the career field, this is supported by opinions in Bardick's research (2004) stated that high career planning needs for Junior High School students related to an information need about further study after Junior High School to the role of the counselor in providing assistance services in the form of providing career information services to help improve student career planning. Students need information, advice, and direction from counselors in helping them in planning a career. The results of this research are also in line with previous research that students are prepared to help career decisions so that they emphasize the importance of career planning (Hiebert, 2012). Thus, counselors at schools are very relevant to implementing multimedia-assisted career information service models to improve the career planning of Junior High School students because of their proven level of effectiveness through limited trials.

Interactive multimedia has gone through the effectiveness stage and the feasibility assessment stage of experts, practitioners, and students who are expected to fully support the improvement of students' career planning at Public Junior High School 3 Cepu and it is expected that the next researcher interactive multimedia can be used for all Junior High School students who exist in Indonesia with various levels and use of multimedia not only in classical but also can be used online.

CONCLUSION

This research was conducted to improve the understanding of the students' career planning for Junior High School 3 Cepu, Blora Regency, by using interactive multimedia. The results of

this research indicate that the use of interactive multimedia can significantly improve the ability of career planning in Junior High School students, based on the acquisition of pre-test and post-test scores on the career planning scale after being given treatment by the researcher.

Junior High School Counselors are expected to implement the use of interactive multimedia, after being tested it proved effective to improve career planning skills in Junior High School students. Further research is expected to develop this multimedia in an android application so that it is easier to use whenever and wherever. In future studies are also expected to summarize content for higher education, so that students are not too bored in digging up information.

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