

## The Effectiveness of Multimedia Educative Games “Jelajah Karir Bersama Nina” to Improve Students Understanding of Career Recognition in Elementary School

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### Abstract

This study aims to improve understanding of career introduction of elementary students by using multimedia educational game media “Jelajah Karir Bersama Nina”. The experimental research method used the design of one group pre-post test with purposive sampling technique to determine the subject of the study of 5<sup>th</sup> grade students of elementary school as many as 21 people. The results of the study obtained an understanding of the career recognition of the students of 5<sup>th</sup> grade Integrated Islamic Elementary School (SDIT) Avicenna, before using the medium of guidance (pre-test) the mean value of 101.57 with SD 8.02, and an increase in the mean posttest 113.76 with SD 5.21. Parametric test results were found ( $t_{(20)} = 11.412$ ,  $p < 0.01$ ), there are significant differences so it can be concluded that multimedia educational games “Jelajah Karir Bersama Nina” effective to improve understanding of career introduction to elementary school students. This finding confirms that media are multimedia educational games “Jelajah Karir Bersama Nina” can be applied to improve understanding of career recognition for elementary students.

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## INTRODUCTION

In every span of life, humans have different developmental tasks, which originate from physical and psychological maturity, the demands of society or culture and the values and aspirations of individuals. The task of development is one aspect that must be understood by a counselor as the target achievement of guidance and counseling services. One of the developmental tasks of elementary school age children, according to Nurihsan (2003) is developing life concepts that are necessary in life, in this case, career insight and readiness.

Crites define a career as a development process of work decisions that last for life. Herr and Crammer defines a career refers to a work or occupation occupied and believed to be a vocation, which permeates the whole of one's thoughts and feelings and coloring all of its lifestyles. Career is an individual development (self-development) within the span of life that includes the roles of life, background, and events of one's life (Suherman, 2012).

Career selection requires careful preparation and planning, not just getting a temporary job. Elementary school is the foundation of the knowledge that will be the foundation for the students while continuing their studies to the next level. As stated in the Law of National Education System no. 20 of 2003 that at the level of elementary education, education has the purpose of laying the foundation of intelligence, knowledge, personality, noble character and skills to live independently and follow education further. The process of basic education should be able to help students understand the potential of themselves, opportunities, environmental demands and plan for the future through the most likely set of decision-making for students.

Ginzberg, et al. Dividing career development into 3 main stages, namely: fantasy stage (age 0-11 years or elementary school); tentative stage (age 12-18 years or high school) and realistic stage (age 19-25 or college) (Suherman, 2012). In the fantasy stage,

elementary school children begin to recognize various types of work starting from the work of their parents, family and the closest people in their neighborhood. They see the work of the people around them by looking at the clothes and attributes they wear and the tasks they do. In line with their cognitive development, children begin to receive various information about the types of work outside the profession of people they know through television, newspapers, radio, and others.

According to Gibson & Mitchel (2011), the counselor should be able to assist the student in expansion or to know more about continuous knowledge and awareness about the world of work (career), which is integrated through a planned program. Whether by using film media, printed material (books), computer programs, internet media and special programs such as career day, internship, a study tour to the workplace to virtual trip using computer media. Everything is expected to facilitate students in knowing and know more about the ins and outs of a career or position.

In carrying out career guidance in elementary school, classroom teachers as implementers of guidance teachers at the elementary level have not been able to carry out counseling guidance services optimally. The reality of the implementation of guidance and counseling services in primary schools throughout the country has not been realized as expected (Departemen Pendidikan Nasional, 2007). The generalist pattern that is expected to be able to answer the limitations of school counselor personnel has various weaknesses that are found, such as the dissemination of service activities that are too broad guidance; not all classroom teachers are able to conduct professional guidance because there are several types of services that require special skills; not all classroom teachers are able to enrich the guidance material and the use of guidance media that appeal to students and the limitations of counselor personnel.

Hidayati (2015) in his research suggests difficulty in career decision making for students can be avoided when students have a sufficient

amount of information about matters relating to his career world. Therefore they need to get full career information, guidance and mentoring services in order to gain an adequate understanding of the various conditions and characteristics of himself, both about the talent, interests, ideals, the various strengths, and weaknesses that exist in him and not wrong in determining the career he chose. Implementing career information services is expected to have an effort in every career information service delivery, more creative counselors in presenting service materials.

Korida & Nursalim (2013) find information services that are still traditional using lectures, lowering students' interest in following services because of boredom and saturation. As a form of communication, counseling services need guidance media. Media counseling can represent what the less able spoken counselor through certain words or sentences in understanding certain information.

Media guidance by Nursalim & Mustaji (2010) is everything that can be used to channel guidance and counseling messages that can stimulate the mind, feelings, attention, and willingness of students to understand themselves, direct themselves, make decisions and solve problems faced.

Guidance media that can be developed from the education media are utilizing information technology in the form of multimedia educational games. Kettunen, Vuorinen & Jr (2013) in his research shows that in the career sector it is necessary to develop practitioners' understanding of careers with more complex technology and social media. This is important when considering the use and integration of new technologies in the career sector, to develop training and support in order to broaden career practitioners' understanding of new technologies.

Franklin, Young, Chang, Liu, & Peng (2011) said the virtual game was able to attract high school students to major in engineering. This research departs from the reason for the lack of interest in students entering the engineering sector so that the US National Science

Foundation predicts the shortage of engineers and scientists due to students who feel insecure about the ability of science and mathematics so that they choose other career sector.

Dunwell, Lamerias, Freitas, Petridis, & Hendrixdan Arnab (2013) find playing online games MeTycoon has helped respondents learn about jobs that might be available in the future. So that by researchers, the MeTycoon game is recommended to be used by teachers and students as one of the career guides that have pedagogical elements containing career videos. The study was conducted to visitors or MeTycoon online game players in the UK about their influence on their insights in making career decisions. An approach that uses multimedia games as a career guide that combines game-based elements such as character development and career decision making with a visual approach. 78% of the players whose respondents were students agreed that helping them learn about work.

Based on some of these studies, it can be emphasized that media guidance is an important thing in guidance and counseling services. In particular, guidance media in the form of multimedia educational games are effective to assist students in understanding career guidance material. This is the basis for researchers to use multimedia educational games "Jelajah Karir Bersama Nina" which is used as a medium of guidance to improve understanding of the career recognition of elementary school students.

## METHODS

This study uses an experimental design one group pre-post-test, with a purposive sampling technique that is 5<sup>th</sup> grade class of Integrated Islamic Elementary School (SDIT) Avicenna students in Rembang Regency as the subject of research. The study used one research group where prior to treatment, researchers conducted a pre-test to determine the initial condition of understanding the career recognition of elementary students. Then the researchers gave treatment for career recognition guidance services using multimedia educational game media "Jelajah Karir Bersama Nina" in 3 meetings. The

last step the researcher conducted a post-test to find out the final condition of understanding the students' career recognition. (Figure 1)

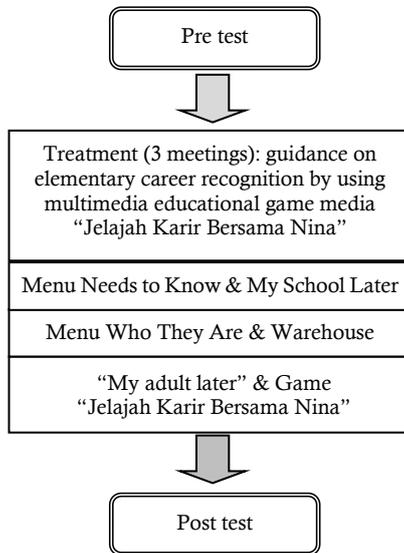


Figure 1. Flow of Research Experiments

Game media “Jelajah karir Bersama Nina” have career guidance materials suitable for elementary school level. The content contained in this media to reach six indicators consists of five material menus and one game menu. Figure 2 through Figure 9 is a display of career recognition media for multimedia educational games “Jelajah Karir Bersama Nina” which is used as a medium for career recognition for elementary students. The main view of the game “Jelajah Karir Bersama Nina” consists of the main menu of the material and the main game menu (Figure 2). The main menu display material consists of four material menus and one reflection menu “My adult later” (Figure 3).

Menu Needs to Know, which is a material menu consisting of three indicators, namely indicators of the importance of working for life; indicators of recognition and self-understanding related to career and the importance of having ideas and indicators of the role of different individuals, both men, and women (Figure 4). Menu My School Later contains activity indicators after graduating from elementary school and getting to know secondary school (Figure 5). Menu The Who, they contain indicators linking the benefits of learning with

work (Figure 6). Menu The Warehouse Work (Figure 7) contains indicators of knowing the various types of work performed by adults, in this indicator also made for the main Game menu “Jelajah Karir Bersama Nina” (Figure 8) to be more interesting and make concepts about various types of work more clearly understood by students. Menu My Adult Later is a reflection for students to have goals as early as possible (Figure 9).

This game is made in the form of a CD and in the form of an android application, to facilitate the class teacher or counselor in using the media guidance to adjust the infrastructure facilities owned by the school.



Figure 2. Main Display



Figure 3. Menu “Jelajah Karir Bersama Nina”



Figure 4. Menu Needs to Know

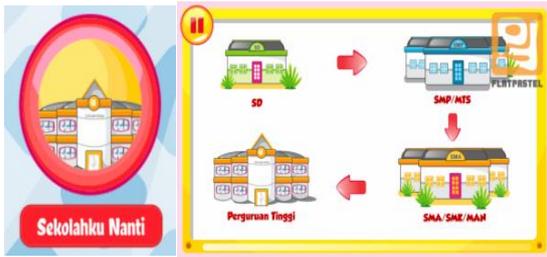


Figure 5. Menu My School Later



Figure 6. Menu Who They Are



Figure 7. Menu Warehouse Work



Figure 8. Game “Jelajah Karir Bersama Nina”



Figure 9. Menu My Adult Later

The data collection technique used in this study was to use a career recognition scale consisting of 35 items. Based on the validity and reliability test of item items, it is known that the career recognition scale was initially 40 items, 35 items were declared valid and 5 items were declared invalid. The results of the calculation of the reliability test scale of career recognition for students a number of N = 21 students with Alpha formula obtained a reliability coefficient of 0.95.

## RESULTS AND DISCUSSION

Analysis of the results of the pre-test average level of understanding of student career recognition is 101.57 with SD 8.02 while at post-test the average is 113.76 with SD 5.21. In table 1 it can be seen that there is a difference in the average value of pre-test and post-test which shows a change in understanding of students' career recognition increases higher after getting guidance services using multimedia educational game media “Jelajah Karir Bersama Nina”.

In line with the results of the pre-test and post-test measurements, it can be seen that there is an increase in student career recognition. This means multimedia educational games “Jelajah Karir Bersama Nina” effectively used as a medium to improve understanding of the career recognition of elementary school students. The results of the t-test analysis, paired sample t-test confirms that media are multimedia educational games “Jelajah Karir Bersama Nina” can be applied to improve career understanding of elementary school students ( $t_{(20)} = 11.412, p < 0.01$ ).

Table 1. Changes in Mean Student Career Recognition

	Mean	SD
Pretest	101.57	8.02
Posttest	113.76	5.21
t	11.412	
p	< 0.01	

Guidance media are important in guidance and counseling services. The use of guidance media will increase meaningful learning as a result of counseling guidance, it is important to achieve the guidance goal of helping students

achieve optimal development. Like research conducted by Alhadi, Supriyanto, & Dina (2016), media is an important element in improving the success of guidance and counseling services. The media used by counselors can increase the creativity of school counselors in implementing services in schools. With the use of media, students are better able to understand and internalize guidance material, eliminating students' boredom so that the purpose of guidance can be achieved. Keep in mind that the selection of any form of media must be relevant to the purpose of guidance.

Zamroni, Sugiharto & Tadjri (2014) found that interactive multimedia career guidance proved effective in improving career decision-making skills. Athiyah, Tadjri & Purwanto (2014) also, find career information services by using multimedia effectively in improving student career maturity.

Dunwell, Lameris, Freitas, Petridis, Hendrix & Arnab (2013) find playing online games MeTycoon has helped respondents learn about jobs that might be available in the future. So that by researchers, the MeTycoon game is recommended to be used by teachers and students as one of the career guides that have pedagogical elements containing career videos.

Prasetiawan (2017) concluded in his research, that the use of media in relevant guidance and counseling services in the classroom can optimize the service process. For counselors or classroom teachers, the media helps to concretize concepts or ideas and help motivate students to actively learn. For students, the media can be a bridge for critical thinking and acting, thus the media can help the counselor or class teacher's tasks and students achieve the specified competencies. In order for the media to be used properly in guidance and counseling services, counselors need to know the needs of guidance and counseling services and the problems faced by students about the material to be delivered. Then the media needs to be developed based on relevance, basic competencies, material and student characteristics. Counselors can act as creators, namely creating and utilizing appropriate, efficient and enjoyable media for

students. Using multimedia assistance, students are expected to use as much of their senses as possible to observe, hear, feeling, permeating, living and ultimately having some knowledge, attitudes, and skills as a result of learning or guidance.

In multimedia educational game media "Jelajah Karir Bersama Nina", use a computer software CD and an Android application as an option. This media contains several menu materials about career recognition accompanied by an interesting game to find out how far the students' knowledge about job information from the task, the place of work, the tools used and other equipment in the work. Students can use this media accompanied by a counselor or class teacher.

But students can also do it independently. In the process, students can be more interactive because students can choose the menu that will be opened with the help of computer mouse or touchscreen navigation if using an Android smartphone. At the time of the main sector test, the researcher gives the opportunity for students to operate the game interchangeably.

So that students feel directly involved in the guidance process, and this gets a pleasant response from students. The results of the validation of media, material and practitioner experts showed that the multimedia educative game model as a medium for students' career recognition guidance was designed to be suitable for use in schools.

Media multimedia educational games "Jelajah Karir Bersama Nina" this is more interesting to the interest and attention of students in following the guidance, the program contains more complex career recognition materials, giving benefits to the classroom teacher as implementing guidance because it has the same teaching material that interests students. As for the benefits for students, it becomes easier to understand the material, stimulates students' thinking power and can learn independently.

The concept of guidance while playing is very beneficial for students' cognitive development. According to Piaget the child's cognitive structure needs to be trained, and the

game is a perfect setting for children's cognitive training (Khobir, 2009). This is in line with the opinion Hurlock (2008) that at elementary school age, students are able to react to intellectual stimuli or carry out learning that requires intellectual abilities or thinking such as reading, writing, arithmetic.

One of the cognitive activities of students in school is information tracking books, learning media or other sources. Students not only learn new meanings for concepts but also improve wrong meanings, linked to old concepts to give meaning to concepts that have been possessed.

## CONCLUSION

This research was conducted to improve understanding of the career recognition of elementary school students in Integrated Islamic Elementary School (SDIT) Avicenna Rembang Regency using media guidance multimedia educational games "Jelajah Karir Bersama Nina".

The results of this study indicate that career guidance services using multimedia educational game media "Jelajah Karir Bersama Nina" significant improve understanding of career recognition of primary school students, based on the acquisition of pre-test and post-test scores on the student career recognition scale after being given assistance (treatment) by researchers.

Counselors or classroom teachers in elementary schools are expected to be able to implement career guidance in elementary schools by using multimedia educational game media "Jelajah Karir Bersama Nina", because this model after being tested proved to be effective to improve understanding of career recognition for elementary students.

Subsequent research is expected to develop and improve the media of multimedia educational games for existing elementary career recognition guidance, to be more specific and in accordance with the needs of students and classroom teachers such as the separation of material for low grade and high-grade elementary students.

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