

The Effectiveness of Quick Response Code-based Career Profession Media to Enhance Students Career Insights

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Abstract

Secondary school level is a strategic level in which a human must improve his knowledge or insights about a future profession and career planning. Thus, the present study strived for examining the effectiveness of quick response code-based career profession cards to enhance the insights of eight graders. The students' data were collected using a career insights scale and further analyzed using paired sample statistic test and paired sample t-test. Following the analysis, there was an effect of quick response code-based career profession cards on the improvement of eight graders career insights. Therefore, the medium of quick response code-based career profession cards needs to be utilized to enhance students' career insights.

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INTRODUCTION

Learning media using cards are often used to aid the learning process. Using these cards is considered effective for increasing learning achievement due to the existence of its impact on students (Situmorang & Holiwarni, 2015). Quick response code-based career profession cards are a kind of the visual learning media that strive for increasing students career insights by providing a variety of information about profession regarding Holland's personality typology called RIASEC (realistic, investigative, artistic, social, enterprising & conventional) or Holland's code. Pierce & Johnson (2017) argue that Holland's personality types represent characteristic patterns of individual interest, competencies and behavior, while the other 6 parallel environmental models are settings that develop and value six individual interest, competencies and behavior patterns. Su et al., in Ghetta et al., (2020) assume that the RIASEC typology of workers is related to a work environment where most jobs show personality characteristics similar to their characters. Similarly, Ramandeep et al., (2021) state that individuals will prefer to the job whose workers are similar to their characters. This was confirmed by Holland in Sheu et al., (2010) who emphasize that people with the same personality who work together can create a suitable environment and respect one another. For more, Leung (2008) mentions that the first letter of the code infers the interest possessed by an individual, while the second and third letters indicate secondary interests likely to play a lower role, but does not rule out being important in the process of selecting and making one's career decisions. Nye et al., (2018) argue RIASEC profile not only can be developed and intended for individuals only, but also for jobs.

Adolescence is a significant period for individuals in shaping vocational identities related to career preparation and economic independence. Holland (1985) mentions that vocational identity is a form of clarity about ideals and self-perception. It is supported by Erikson (1959) who explains the inability of individuals to determine their work identity will

result in disruption. Adolescent career development is in the age range of 16-22 years, a year that belongs to exploration stage since it points out the importance of work for adolescents.

Morgan & Huebner (2019) explain that adolescence is a transitional period that not only occurs in adolescents, but also in their families. Aghaei et al., (2012) assume that adolescence is a period of storm and stress, as well as a period of oscillation and opposition in which adolescents will find new characteristics to support them in developing a healthy identity, especially in the vocational dimensions. Parents as partners in adolescent career development need to improve their association regarding the ideas, values and aspirations with adolescents. Sawitri, Creed & Zimmer-Gembeck (2014) argue that parents also need up to date various information to match the demands of the latest environment.

Oktaviana (2016) in her study at SMPN 40 Surabaya found that students lack sufficient information to plan their careers and apparently, they got more information from outside the school than from inside the school. In fact, students demand information about the types of work and self-understanding to determine the next steps to achieve their goals. Similarly, Widowati (2019) in her study at SMPN 1 Proppo, Pamekasan revealed that students still hesitated about choosing and making decisions in advancing their further studies and careers. The achievement of developmental tasks will be easier if it is supported by the provision of guidance and counseling services using proper media in terms of material, strategies and characteristics of students to plan and decide on the selection of further studies. Permatasari (2020) in her study at SMPN 1 Margatiga, East Lampung concludes that students do not understand the types of professions because they felt bored the services methods provided by counselor. One of possible effort address this problem is to provide a career introduction regarding the type of work or profession to students so that they can find out the type of work or profession to student they desire.

Career services will be easy to provide if supported by qualified media with special

material based on the needs and characteristics of students, especially for planning and deciding on further studies after completing studies at the junior high school level. The development of career guidance service media continues to increase every year in the creativity of its manufacture, one of which is a career card medium developed by Oktaviana (2016) with the aim of helping students in planning their careers. It was invented by Oktaviana (2016) based on John L. Holland's theory and packaged into a game equipped with a guidebook. Meanwhile, Widowati (2019) developed a career planning picture card medium. The medium developed by Widowati (2019) contains pictures of various kinds of work and pictures of high school and vocational writing, along with a user manual. Permatasari (2020) also developed a quick response (QR)-based career card medium as a means to introduce careers to students. The medium developed by Permatasari (2020) contains the most demanded 6 types of professions by students, namely doctors, teachers, police, soldiers, nurses and pilots. Based on the previous studies, the researchers decided to develop the identical medium, namely a card-based career service medium called a quick response code-based career profession cards medium with the basis of John L. Holland's 6 personality typologies named RIASEC (realistic, investigative, artistic, social, enterprising & conventional) which contains 30 types of professions and is connected to a website called *cardd.co*, a website that contains educational qualifications and college majors that must be taken in accordance with the chosen profession. This medium is equipped with user manual that covers theory to guidelines for using the career profession card media.

The present study centered on testing the effectiveness of the quick response code-based career profession cards medium which contains types of work and characteristics based on John L. Holland's career theory and its guidebook. The findings of this study were expected to assist counselors in providing career guidance service materials using the medium.

METHODS

30 students, including 14 male and 16 female of grade VIII 5 at SMP Negeri 1 Metro were involved as the subjects. Their data were collected using a career insights scale designed by the researchers. It has 3 indicators and 6 descriptors, namely 1) career orientation (career interest and career choice), 2) self-understanding (personality and skills and talents), and 3) further study orientation (study program and career choice). The instrument validity following the test using the product moment resulted 29 valid statement items with the lowest *rxy* range of 0.352 and the highest 0.747. Meanwhile, the results of the instrument reliability test using Cronbach alpha showed that all items gained an alpha coefficient of 0.878.

This experimental procedure started with a pretest. After that, a small trial of intervention was carried out by placing 30 students into 6 groups within 15 minutes. Finally, a posttest was given to the subjects to determine the level of their career insight after using the medium.



Figure 1. The Quick Response Code-Based Career Profession Cards Medium

The data analysis technique in this study was carried out using hypothesis testing using paired sample t-test.

RESULTS AND DISCUSSION

After comparing with the pretest results, there found a different condition before and after the treatment was implemented. Initially, there were 26 students had medium category (86.6%) and 4 with high category (13.3%).

Table 1. The Results of Pretest and Posttest Regarding Careers Insights

Category	Pretest		Posttest	
	f	%	f	%
Medium	26	86.6%	9	30%
High	4	13.3%	21	70%

The results of the pretest and posttest showed a significant difference before and after the intervention was given. In the pre-test there found 26 students had a medium level of career insight (86.6%) and 4 students with a high level of career insight (13.3%). Meanwhile, for the post test results after being given a career guidance service using the quick response code-based career profession cards medium, the level of students' career insight increased, namely 21 students achieved the high category (70%) and 9 of them achieved the medium category (30%).

Table 2. The Results Paired Samples Test

Measurement	M	SD	T(29)	p
Pretest	81.57	8.48	6.99	<0,01
Posttest	90.07	8.04		

The above table shows the different level of students' career insights in terms of pretest and posttest, namely 81.57 and 90.06 respectively.

According to the above mean, the quick response code-based career profession cards medium has been proven effective to enhance students' career insights. It is in line with a statement by Hidayat & Prabowo (2019) that one of the triggers for problems in student career planning is due to the minimal level of career insight and about the world of work.

Adolescence is a time when individuals are open to explore types of professions as well as their talents and interests through academic and non-academic activities to complete their curiosity. Widowati (2019) states that students at the junior high school level still hesitate about choosing and making decisions about further studies and future career choices. Widowati's is reinforced by Oktaviana's study (2016) which concludes that students at the junior high school level really need information about various types

of work and self-understanding that will help them achieve their goals.

Card medium is considered effective as a learning aid since it positively affects students. Permatasari (2020) argues that a career card medium can aid students in introducing careers at the junior high school level due to its feature that can increase students' enthusiasm in adding information and insight regarding the various types of professions or desired jobs. Permatasari's is supported by Bagaskara (2021) that a career cards medium can provide insight and knowledge for students about comprehending career planning information related to further study and encourage students' curiosity about careers so they can plan a career according to their interests and abilities.

The career profession card medium has benefits in terms of design and technology because it is integrated with a quick response code and a website that can be accessed with a link connected to a special website that contains information related to educational qualifications and course majors taken.

CONCLUSION

The present study examined the effectiveness of a quick response code-based career profession cards medium to enhance students' career insights. According to the findings, this medium contributes to the increase in the eight graders career insights. However, there needs a follow-up, for example school counselors may use a quick response code-based career profession cards medium in their career guidance services, while the future researchers are recommended to develop the quick response code-based career profession cards medium to be better in terms of design and contents to attract students in joining the career guidance services at schools.

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