Online Career Position Dictionary as Media to Improve Junior High School Students’ Career Exploration

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Abstract: Significantly, career exploration development occurs in adolescence (15-24 years). Career exploration aims to instill in students a positive attitude towards the working world, build initial job choices, increase knowledge about oneself, the external environment, and the working world, and how the two can be congruent. This research considers the career exploration needs of junior high school students as a basis for determining the future direction of career choices by noticing their skills’ suitability, interests, and tendencies towards an appropriate job. The R&D method was employed to develop and measure the effectiveness of the Online Career Position Dictionary (KJKO) using the CES instrument (career exploration survey). The measurement results revealed an improvement in students’ career understanding. It proves that the career information media developed can be a reference for guidance and counseling teachers in providing career information services to junior high school students.

Keywords: KJKO, Career Position Dictionary, career information, career exploration

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INTRODUCTION

Career understanding is an essential aspect of career guidance and counseling service program. Career guidance and counseling mean an understanding of development, exploration, aspirations, and career decision-making rationally and realistically, according to self-potential and available career opportunities (Mendikbud, 2014). Career guidance and counseling in schools focus on planning students' lives related to understanding themselves and their environmental conditions. It helps students assess, prepare for, and choose a continuing study program according to their interests and abilities (Purwanta, 2012).

At the secondary school level, guidance and counseling services are provided by a school counselor. It is an integral service that facilitates students in personal, social, educational, and career development. At this level, students are required to be able to explore and understand their potential. According to Munandir (1996), a career understanding is more important for middle school students than elementary school students, where middle school students enter their late teens who are required to care more and start seriously thinking about their life and future.

Government through Permendikbud No. 111/2014, as explained in Article 6 paragraph 1, states that “the Guidance and Counseling service component has four programs covering (a) basic services, (b) specialization and individual planning services, (c) responsive service, and (d) system support. In this article, the position of career guidance and counseling services is concentrated in specialization services and individual planning. Specialization and individual planning services included in career guidance and counseling services are government efforts through educational institutions/schools to help develop students' career exploration processes. In the Annex of the Minister of Education and Culture (2014), specialization and individual planning services are curriculum programs provided by schools to accommodate students' interests, talents, or abilities through self-orientation according to their opportunities and potentials so that they can choose and make the right decisions in developing their potential optimally. With this service, it is hoped that students can go through the development process and career exploration well. Therefore, to develop self-potential in students optimally, career guidance and counseling services are needed to accommodate these needs, including by providing career information services.

Career guidance and counseling are organized to develop individual career awareness, career planning, career decision-making, and surrounding environment understanding (Kwasny, 1992). Career guidance and counseling help students determine their interests, skills, values, needs, competencies, talents, and career maturity before entering into career choices (Drummond, 1995). In line with this, Gani (1996) also said that career guidance and counseling aim to invite students to assess, understand themselves about basic potentials, interests, attitudes, and career skills, and provide various information about work types related to their potential and interest. The process of knowing, understanding interests, and exploring the potentials that exist within oneself related to a career is called career exploration.

According to Munandir (1996), career understanding is more important for middle school students than elementary school students, where middle school students enter their late teens who are required to care more and start seriously thinking about their life and future. Therefore, at the career exploration stage, students need guidance and counseling services to accommodate their needs in developing and recognizing their potential. Thus, they can choose advanced schools in accordance with their fields and expertise.

The career exploration stage is crucial, where a person will learn to recognize his talents and interests in-depth, which can be used to balance personal characteristics with career choices (Blustein, 1993 in Wall, J. E. 1994). Career exploration consists of a wide range of activities, including gathering information and knowledge about a job search, planning, opportunities, and career choices (Levi &

Significantly, the career exploration development occurs in adolescence, but it does not rule out the possibility that it happens in all life spans. Career choices are formed from understanding self-concept through a process of self-understanding and deepening of career exploration in all life span. Self-understanding (self-knowledge) is obtained from the process of getting to know the person personally. Meanwhile, career exploration is obtained from providing career information services and one’s work experience. Thus, it can be concluded that adolescence age, namely the age of 11-18 years (middle-high school age), is the productive age for a guidance and counseling teacher or career consultant in providing career information services for students or clients.

Porfeli (2010) argues that to be involved in career exploration, students must be able to determine (a) what I want and need, or "who I am", (b) what work is attractive to me, or "what I do will be satisfying", and (c) what I can give to the world of work in return for what I want and need, or "how can we interact and exchange contributions". In line with Porfeli, Jordaan (1963) explained that career exploration is employed to know oneself and the world of work and how the two can be congruent to get the desired results. Therefore, it can be concluded that career exploration aims to instill in students a positive attitude towards the working world, build initial job choices, increase knowledge about oneself, the external environment, and the working world, and how the two can be congruent. Career exploration is utilized as a predictor of vocational identity development that helps students, especially in choosing majors at the educational level above.

Environmental career exploration is an investigation of various career options so that an individual can consider each career choice. In environmental career exploration, proactive individuals gather new information on the job, organization, family, job, or industry that enables more informed career decision-making. Self-exploration focuses on defining and exploring their interests, values, previous experiences, and career goals. In both aspects of career exploration, collecting career information is an inseparable part of the career exploration stage, where career information is useful to provide an in-depth understanding of the world of work and aspects needed in future career planning.

In the digitalization era, digital media-based career guidance and counseling information services are more efficient and effective than using contemporary media, such as books, newspapers, or other printed media. The fast development of communication media, especially the internet, affects student learning media from print media to digital media. Career information sources can be obtained from various existing media, such as radio, television, newspapers, guidance boards, and internet media, whose advantages are easily accessible anywhere and anytime.

However, internet media-based career information services must be accountable for their theoretical value, provide insight for users, and provide experience for the development of student career exploration. Its purpose is to address a person's talents, interests, and inclinations for suitable work (Neuer Colburn, 2017). The development of an online position dictionary can provide an understanding of career position information, which is useful for the development process of student career exploration. The online career position dictionary is a web media-based career information service and is oriented to describe various kinds of career positions in specific jobs, duties, responsibilities, and the supporting aspects of the career positions' types.

The online career position dictionary consists of two versions; the first version is an online career position dictionary on the website version, and the second version is an online career position dictionary in the manual version. The website version of the online career position dictionary can be accessed directly at the address www.etnikkonselor.blogspot.co.id/. Meanwhile, the manual book version of the
online career position dictionary can be downloaded directly on the website version of the online career position dictionary page. It is hoped that the manual book version of the online career position dictionary publication can make it easier for users to access and use maximally, especially to answer the users’ limitations who do not have internet access to open an online version of the online career position dictionary or website.

The advantage of the online career position dictionary compared to other career information media is that it provides descriptions of various career positions and the aspects needed for each career position based on validated criteria and is suitable for use by junior high school students, high school students, or by guidance and counseling teachers who wish to provide career information services to their students. Besides, the online career position dictionary has both printed and online versions, making it easier for students to choose between one or both versions. Thus, the online career position dictionary can be accessed easily, practically, anywhere, and anytime, both online and in print.

The online career position dictionary is used as a medium for career information services for students in schools. It aims to provide appropriate and valid career information services as a medium to enhance student career exploration. The online career position dictionary adopts the previous career position dictionary, namely The Occupational Information Network (O*NET) and the Indonesian Standard Position Classification (KBJI). The online career position dictionary has special characteristics that are the most important aspects of a career position information service, namely: job code, job description, education required, salary, work area/work location, personality type, must-have knowledge, skills, abilities, work scores, physical working conditions, and high school. The advantage of the online career position dictionary compared to other career information media is that the online career position dictionary provides descriptions of various career positions and the aspects needed for each career position based on validated criteria and is suitable for use by junior high school students, high school students, or by guidance and counseling teachers.

The development of an online career position dictionary is expected to provide teaching materials suitable for use by guidance and counseling teachers to deliver career information services, especially those related to introducing career position information to students.
RESEARCH METHODS

The type of research used in this research was Research & Development (R & D). According to Borg and Gall (1983: 772), R & D in educational research is a process used to develop and validate a product in an educational research model to meet good and appropriate criteria and eligibility. Thus, R & D is development research oriented towards developing new products with criteria that have been standardized by validators or experts. The results of the product developed in this study were the online career position dictionary using Web media adopted from the O*NET (Occupational International Network) online career dictionary in the United States and the Standard Classification of Career Position (KBJI 2014) owned by the Indonesian Ministry of Manpower and Transmigration. The trial subject was conducted on junior high school students in North Sulawesi Province, with restrictions on public schools in Manado City, Tomohon City, and Minahasa District.

Product Development Procedure Design

1. Needs Assessment
2. Formulating Problems
3. Relevant Theory Study
4. Formulating Development Goals & Arranging Research steps
Product Trial Design

Visually, the product trial design in this study can be seen in Figure 3, as follows.

Figure 3. Product Trial Design
Effectiveness Trial Design

Operational testing is a way of comparing conditions before and after using a new product (before-after). The operational trial aimed to see the online career position dictionary product’s effectiveness in increasing junior high school students’ career exploration. This operational trial employed experimental techniques, while the experimental design used in this study can be described as follows:

Table 1. Experimental design (before-after) between the control group and the experimental group.

<table>
<thead>
<tr>
<th>Creswell (2012)</th>
<th>Pre- and Posttest design</th>
<th>Time</th>
<th>No Treatment</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Random assignment</td>
<td>Control Grup</td>
<td>Pretest</td>
<td>No Treatment</td>
<td>Posttest</td>
</tr>
<tr>
<td>Random assignment</td>
<td>Experimental Grup</td>
<td>Pretest</td>
<td>Experimental</td>
<td>Posttest</td>
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</table>

Data Collection Technique

The data obtained from this research were qualitative data and quantitative data. Qualitative data were obtained from expert validation instruments, teacher responses, and student responses in the form of suggestions and input regarding the usefulness, feasibility, politeness, and accuracy of the online career dictionary product. Meanwhile, quantitative data were obtained from the results of expert validation assessment sheets, teacher responses, and field trials. Besides, quantitative data were also obtained from the results of product effectiveness tests. The data collection instrument for testing the product’s effectiveness used was the Career Exploration Survey, developed by Stumpf (1983).

RESULTS AND DISCUSSION

The development of an online career position dictionary is an attempt by researchers to provide a new understanding of the career world for junior high school students, especially in the types of career positions. Lack of career information made students confused and hesitant in choosing a career continuation (Priyatno 2016). In accordance with Sukardi (1994), the development of an online career position dictionary is an attempt by researchers to provide career information easily accessible and understood by students. Thus, students can explore career information, especially regarding the types of career positions in Indonesia. The use of the internet itself is increasingly in demand by various groups, both individuals, government agencies, to private agencies. It is influenced by the wide/global coverage of internet use, is not limited by time, is cheap, is easily accessible, and has become one of the media for the rapid dissemination of information.

Career exploration occurs during the later years of adolescence (Taviera et al., 1998). The career exploration phase in junior high school students of 15-24 years old, human is still looking for, exploring their potential and self-concept, and building aspects of the importance of a job and career decisions in the future (Taveira & Moreno, 2003). The media career position dictionary that has been developed has undoubtedly been adjusted to the level of career development of junior high school students, especially at the stage of their career exploration. It is why the development of the career position dictionary media itself has gone through a long series of processes: (1) needs studies; (2) initial product preparation; (3) validation of media experts, material experts, teacher responses, and student responses; (4) product revision; (5) product effectiveness test.
The development of an online career position dictionary has gone through several development procedures. These procedures included preliminary studies, initial development designs, product validation to material experts, media experts, practitioner responses, student product trials, and product revisions. Some of these development procedures formed the basis for whether the online career position dictionary product was feasible to use. In the preliminary study stage, the researcher conducted a field survey in January-February 2016 by looking for various career information services findings. The findings obtained at SMP Negeri 1 Tondano were the limited career information services received by students. For example, the media used in the delivery of career information services was limited to classical services; there were no career information service media in the form of print media or online media developed by guidance and counseling teachers. The literature study stage was carried out by researchers to formulate concepts or theories regarding career information services, especially career information services based on career dictionary media. The literature review included an analysis of various career dictionary literature originating from Indonesia and abroad, such as O*NET and KBJI.

At the initial product development stage, the researcher compiled the material obtained from preliminary studies and literature as the goal of this study was to develop a viable and effective online career position dictionary. At the initial product development stage, the researcher has designed a concept where the online career position dictionary must contain important career exploration and career dictionary aspects. This aspect was contained in the contents of the online career position dictionary, including job code, job description, education required, salary, work area/work location, personality type, the knowledge that must be possessed, skills/expertise, abilities, work values, physical conditions of work, and high school.

Starting from this concept, the researcher made a career dictionary model, which was named "Online Career Dictionary". From this initial design, the researcher then constructed a better career dictionary model and has gone through material validity and media validity.

After the initial design of the career position dictionary has been completed, the next step was to make the product suitable for use and had effectiveness in enhancing the career exploration of junior high school students. Validation was conducted by media experts, material experts, and junior high school guidance and counseling teacher practitioners in North Sulawesi Province. The career position dictionary that has been validated and revised would then be carried out a series of field trials, both small- and large-scale trials.

Expert validation was done to provide standards and feasibility for the product being developed so that online career position dictionary products could be used according to junior high school students' career exploration development needs. Assessment data by expert validators included aspects of feasibility, accuracy, propriety, and product usability (utility). The following Table 2 is the result of the material and media expert validation test.

The results of the data were obtained from the responses of the guidance and counseling teachers. This aspect of the assessment included a combination of the evaluation aspects of material expert validation and media expert validation, namely, aspects of product usability, product feasibility, product accuracy, and propriety.

After the product was declared feasible, the researcher then carried out a product operational test or product effectiveness test. The product effectiveness test was intended to measure the online career position dictionary product's effectiveness as a medium to increase students' career exploration. The following is the essence of the discussion regarding the final product study that the researchers have compiled:

Product Eligibility of Online Career Position Dictionary
The development of an online career position dictionary is the result of needs analysis study and literature studies. The needs analysis, in this case, was a career information service that was easy to use and easy to understand for junior high school students in North Sulawesi Province. Meanwhile, the literature study referred to was a career information service in the form of a career position dictionary, which was partially adopted from O*NET and KBJI 2014. From the need analysis and literature study, a career information service model called the "online career position dictionary" was designed.

Before the online career position dictionary media was used by teachers as teaching materials or students as a medium for finding career position information, first the online career position dictionary media was assessed for its eligibility by material experts, media experts, guidance and counseling teacher practitioners, and students at the junior high educational level in North Sulawesi Province. The results of the assessment included: feasibility, usefulness, accuracy, and politeness aspects. It is in accordance with the opinion of Stufflebeam (1981), which states that product development and educational programs must have standards that must be used, namely standards of usability, appropriateness, decency, and accuracy. Decent means that the product is practical and easy to use; useful means that the product can provide benefits for teachers and students; accurate means that the product can help students recognize their interests and the type of work they want; whereas, having a standard of decency means that the product contains content that can be accounted for and in accordance with the norms of the rules that exist in Indonesia, especially in the North Sulawesi Province. With this standard, the online career position dictionary media could be said to be feasible to use.

Based on the results of the product feasibility analysis using the standard of use, feasibility, politeness, and accuracy, it was known that the online career position dictionary media got the category of assessment "Very Good". In accordance with the product feasibility category, the online career position dictionary media developed was considered feasible if all aspects of the assessment reached the "Good" category. Thus, based on the feasibility analysis by media experts, material experts, guidance and counseling teacher practitioners, and students at the junior high school level in North Sulawesi Province, it was stated that the online career position dictionary was appropriate to use. The online career position dictionary media that has passed feasibility and standardization has contents that are easy for students to understand. The students’ ability to understand the content and media content of the online career position dictionary is one of the most important things. Understanding in applying a developed media is the key to a media conveyed that can be accepted, understood well by students, and benefits students.

Effectiveness of Online Career Position Dictionary

The purpose of developing this online career position dictionary was to stimulate the development of student career exploration. Leila Kristine (2010) explained that providing career information at the school level could have a good impact on students' career exploration processes, as evidenced by students' understanding of career choices and types of work that suit their personalities. Meanwhile, Hou (2014) argued that providing career information could identify interests, abilities, and self-values that help students in their career exploration development. It indicated that a good career information service could positively impact the level of student career exploration. Therefore, the online career position dictionary can be used as a medium for guidance and counseling teachers at the junior high school level in North Sulawesi Province to provide career information services to their students. It was proven to be effective in overcoming problems related to student career exploration. It is evidenced by the research of Ricahard & Strong (2003), which stated that the provision of career information services based on career dictionary media could provide an overview of job information and the world of work.

The career information services based on online career position dictionary media were developed on the basis that the online career position dictionary media could increase student career exploration, especially in increasing students' understanding of career choices and types of work that suit them. Thus,
a career information service model in the form of a standardized and feasible online career position dictionary media could have a good impact on the career exploration development of junior high school students in North Sulawesi Province. Hopson (1981) stated that career information is information that contains the field of work, which is expected that from this information, students can explore self-potential and self-concept.

The online career position dictionary is a career information service model created to stimulate the development of student career exploration. Therefore, the development of an online career dictionary should go through various work stages, and one of them was testing the effectiveness of an online career position dictionary to improve student career exploration. With the product effectiveness test, it could be seen how effective the online career position dictionary product could increase the career exploration of junior high school students in North Sulawesi Province. The results of this study indicated that the online career position dictionary was proven to be effective in increasing the career exploration of grade 2 junior high school students. It was evidenced by the results of the t-test calculation using SPSS 23.0. obtained the value of $t = 4.856$ and $\text{sig} = 0.000$. Based on the 5% error rate probability value, it showed that the sig value was smaller than the p-value, namely $0.000 < 0.05$.

The development of an online career position dictionary has gone through the media validity and expert validity test stages, where it was feasible to use and has "Very Good" accuracy in conveying career information at the junior high school level. The website media developed has also gone through the appropriate and standardized due diligence procedure so that the online career position dictionary was suitable for use as a website media-based career information media. According to Nicholas (2000), internet media-based career information services integrated into the world of education could help students understand career information in accordance with their career exploration development. Therefore, it could be concluded that from the results of the feasibility test of the online career position dictionary, it was a standardized career information media capable of providing career information in accordance with the career development stages of junior high school students.

Furthermore, the finished product would be retried to know the product’s effectiveness that has been developed. This trial was conducted on junior high school students, where the field trial result data was divided into two: the initial field trial data and the main field trial data. Field trial result data were in the form of student response data to online career position dictionary media. The assessment aspects of the student's response included usability, content/material, ease of access, accuracy, language, and politeness.

Field trial data were obtained by providing training on the use of online career position dictionaries for two hours of lessons, and then at the end of the meeting session, questionnaires were distributed to the initial field trials and main field trials to determine student responses and assessments to the online career position dictionary.

The data from the field trial results came from the questionnaire value of the career exploration scale. The results of this career exploration scale data were employed to measure the product’s effectiveness as a medium in improving junior high school students' career exploration. The type of data in the operational trial was divided into two. The first was the control group data, and the second was the experimental group. The use of these two types of operational test data was intended to assess the product's effectiveness in improving student career exploration in terms of the comparison between the control group and the experimental group. To confirm the results of the product effectiveness test, posttest data analysis was conducted using the t-test, which was as follows:

Based on the results of the One-Sample Kolmogorov-Smirnov test using SPSS 23.0, the Sig. in the control group was 0.008. These results indicated that $0.008 > 0.05$, meaning that the posttest data of
the control group was not normally distributed. The experimental group had a Sig. 0.200. These results indicated that 0.200 > 0.05, meaning the experimental group pretest data were normally distributed. Therefore, it could be concluded that the pretest data for the control group and the experimental group were normally distributed. Based on the results of Levene's test using SPSS 23.0, it was known that the Sig.value was 0.018 because 0.018 > 0.05, the posttest data between the control group and the experimental group were not homogeneous.

The results of the normality and homogeneity tests stated that the posttest data of the control group and the experimental group had met the assumptions of normality and homogeneity. Based on the test results using SPSS 23.0, the value of t = 4.856 with Sig. (2-tailed) of 0.000. T-count was higher than the t-table with a value of 4.856 <5% and a significance value of 0.000. The significance value compared to the probability value with a 5% level, indicated that the significance value was smaller than the p-value, namely 0.000 <0.05. Based on this analysis results, it could be concluded that there was a significant difference between the results of the control group treatment and the experimental group. It was reinforced by the difference in the mean of 10.277 and the experimental group 148.370 > 138.092, the control group.

From the results of calculations using the gain score and t-test, it was known that there was a significant influence between providing career information services using classical media with career information services using online career position dictionary media. Thus, it could be concluded that the provision of career information services using online career position dictionary media was effective for increasing student career exploration, as evidenced by the t-test results and the gain score test above.

As a career information medium, an online career position dictionary helps a person in choosing a suitable job for him, directs one's talents towards a specific type of work, describes a certain type of work towards a suitable secondary school, and fulfills the career information needs of students related to the type of career position. Patrick (2004) explained that a good career dictionary, such as the O*NET career dictionary, should be a career information medium that could explain a person's suitability for a specific type of job and organization, as well as being able to highlight emerging issues related to one's career exploration needs.

CONCLUSIONS AND RECOMMENDATIONS

The online career position dictionary is a career information medium that can facilitate the career exploration needs of junior high school students in North Sulawesi Province. It aims for students to have more insight into careers, an understanding of their interests and abilities, and can determine the desired career choices. A viable online career position dictionary has been produced in terms of display and media design for junior high school students in North Sulawesi Province. It was evident from the results of the media expert's test, which scored 51.00, indicating that the online career position dictionary had a "Good" category in terms of display design and the media used. An online career position dictionary has been produced, which was feasible in terms of material for the level of career understanding of junior high school students in North Sulawesi Province. It was evident from the results of the material expert's test that obtained a score of 159.00, meaning that in terms of material, the career position dictionary had a "Very Good" category. Online career position dictionaries have been proven to be effective in increasing career exploration of grade 2 junior high school students. It was proved by the t-test calculation results using SPSS 23.0 that obtained the value of t = 4.856 and sig = 0.000. With a probability value of a 5% error level, it showed that the sig value was smaller than the p-value, namely 0.000 <0.05. Therefore, it could be concluded that there was a significant difference in treatment results between the control group and the experimental group. It was reinforced by the mean difference of 10.277, with the experimental group 148.370 > 138.092, the control group.
It is hoped that the online career position dictionary media can be used as career guidance and counseling service at the junior high school level in Klaten Regency, especially as a career information medium. In order to make broader use of the product, the online career position dictionary can be used by students or teachers of guidance and counseling at the junior high school level other than Klaten Regency according to the user’s assumptions and needs. The development of online career position dictionary media focuses on the types of career positions that are common and exist in Klaten Regency. Therefore, it is hoped that in further research, relevant career positions need to be developed and not only career positions in Klaten Regency. Seeing the growing popularity of smartphone use, it is hoped that in the future, the online career position dictionary will be developed through the Android and iPhone applications to make it easier for users to access the online career position dictionary in one hand.

REFERENCES


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