Developing A Career Information Module to Increase Career Fantasy of Elementary School Students

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Abstract—This study was aimed to: (1) produce the illustration printed media of career information to increase career fantasy of elementary school students, (2) reveal the appropriateness of the developed career information module, and (3) reveal the effectiveness of the use of the developed career information module to increase career fantasy. This study was a research and development study using Borg and Gall design. It was conducted at SD Muhaddithiyah Sapen. The subjects of the preliminary study were six students, those of the main research were 15 students, and those of the operational test were 33 students. The data were collected by using career fantasy scale and module assessment questionnaire. The validity and reliability of the instruments was measured through expert judgments. The instruments were before and after reading the module (pre-test and post-test). Therefore, from the result of the pre-test and post-test gain score was known and then interpreted in the form of categories. The result of this research was a picture-illustration module to increase the career fantasy of the elementary school students. The overall score of the appropriateness of developed media based on the material expert judgment was 88.23, based on the media expert judgment was 93.55, based on the result of the preliminary study was 85.71, based on the main research was 85.95 and based on the result of the operational test was 90.37. Moreover, the gain score of the effectiveness of the use of the developed module was 0.61. Therefore, it was classified as a medium category. The important factors in increasing the career fantasy of elementary school students were the contribution of stakeholders of the school and parents, and the arrangement of the career counseling program to help students increase their awareness of their future career.

Keywords—career information module, career fantasy, development.

I. INTRODUCTION

The development of an individual career is a long journey, guidance and counseling is an individual introduction to add information or insight about the career development. Ginzberg and Donal E. Super in Osipow explain the development of career theory in general at the start since the individual was born [27]. Another thing is also expressed that the maturity, exploration, and choice of individual careers will continue from the phase of children until the adult phase. Some of these expert opinions indicate that the process of individual career development lasts throughout the life that started from the moment of birth.

Individual careers are influenced through the process of human development that will be directly aligned with the developmental tasks facing the individual concerned. Sunaryo reveals the career development of individual elementary school is influenced by two factors: innate factors and environmental factors [40]. Environment means sociological, economic, physical, and educational. Furthermore, the task of individual development that must be mastered is to develop basic skills, physical skills, and develop the concept of life. While the elements of career development that need to be developed by individuals are self-awareness, education awareness, career awareness, and decision making.

The achievement of the developmental task is not just the effort of the individual's own individual factors. It has been disclosed that the achievement of developmental tasks influenced by environmental factors one of which is the educational environment. In this case the school is an environmental factor that can help facilitate the individual achieve optimal development so that successful to achieve further development. School is a conducive environment that actively participates in accelerating the achievement of child development tasks. All teaching and learning activities with various methods of variation and techniques in the learning process is an effective support for child development. The other side that is important and needed for child development is the existence of guidance and counseling as an integral part of education.

Chris Wood and Yvonne K show the results of low-career career-scale research of elementary school students, assessments include information dimensions, curiosity, exploration, interests, key figures, planning, self-concept, time perspective, and locus of control [1]. Male students have the lowest score of curiosity and career information than female students. The scale is developed from Super theory at the growth stage with fantasy sub step. The limited research related to career development in elementary school students becomes the information factor of student's career inhibited. Of
the 6 participating elementary school students (50%) men and (50%) women with 100% living with biological parents and parent income with a range less than Rp.15,000,000 and above Rp.3,000,000. The results show that primary school students are less aware of existing career information around with an average acquisition of 49%. Furthermore, there is no difference in career knowledge between men and women in prove with the highest result achieved by 1 woman (61.5%) and 1 male (69.2%). This reinforces the research of Chris Wood and Yvonne K that elementary school students have barriers in obtaining career information [2].

Based on the results of these studies the need for higher career recognition, the introduction of career in the child's environment can be done directly or with the media images that explain the work activities. This is in accordance with the cognitive development of children conveyed by Piaget primary school children are in the pre operational period and concrete operational period, start thinking and understand with symbols and signs that are given and can think logic that is able to classify and arrange objects or information that is in front of him. These activities can be poured into the media images that facilitate the delivery of information that will produce strong memories and shadows.

Media can provide information facilities by inviting students to fantasize about the career of various jobs. Fantasy that is built is a guided fantasy meaning is a form or type of fantasy guided by other parties in this case the teacher guidance and counseling with the form of films, modules, books and pictures as a source of fantasy. Auger, Blackhurst, and Wahl found that 23% of adults aged 40-55 years have made their work decisions during childhood [3]. Children of the elementary age tend to choose career ideals that are beyond their reach. The age of primary school fantasy is consistent with the psychological process that characteristic of elementary school age personality or by late childhood Havighurst has interest and play activities in fantasy. Childhood end game or entertainment involves delusion as a popular thing. The image media has the advantage of explaining clearly and can be easily captured and remembered by the child, the ease of depiction of the image to be efficient because it does not need to use other tools as its use. Images are an interesting medium for explaining ideas and facilitating difficult events and an effective means of communication [6]. Afriyanti et al mentions the advantages of the image that is concrete, pleasing the reader, the picture can overcome the problem of space and time limitation, the image media can overcome the limitations of observation, can clarify a problem, and cheap price without the need of special equipment. Based on the results of research Afriyanti et al University of Tanjungpura Pontianak in the journal Use Picture Media to improve the activity and learning outcomes of state elementary school students showed the results of the use of media images in the limbs renewal increased [7]. Increase percentage before giving the media of image amount 58.94% then increase as much 13.7% become 72.72% after given information by using media of picture.

Career guidance activities that contain career information is the process of teaching and learning with the use of media techniques. Based on the advantages of the picture that has been mentioned above then the reading book contains stories and pictures in it appropriate with elementary school age children will attract interest information career of children. This will provide an opportunity for children to explore the work in their environment.

II. RESEARCH METHOD

This research uses development research method or called Research and Development (R & D). By adapting the Borg and Gall models. The development procedure consists of (1) Initial research and information collection, (2) Planning, (3) Development of initial product draft, (4) Initial field trial, (5) Revision of initial field trial results, (6) Trial (7) Revision of main field trial results, (8) Operational field tests, (9) Revision of final product, (10) Dissemination and implementation. The test design used refers to the development of Sukmadinata [8]. Experimental test design aims to test the media module of career information used to establish the feasibility of the media. The test design consists of a material expert, a media expert, as well as a grade II elementary school student. The instrument used is a scale to determine the quality of media modules in terms of material and media and career fantasy scale to determine the effectiveness of the use of career information module to improve student career fantasies. Subject of product trial in this research are:

A. Data Quality Analysis of Media Module

Description of gradation of answer options on the scale of assessment of media experts and material experts are:

The image media has the advantage of explaining clearly and can be easily captured and remembered by the child, the ease of depiction of the image to be efficient because it does not need to use other tools as its use. Images are an interesting medium for explaining ideas and facilitating difficult events and an effective means of communication [6]. Afriyanti et al mentions the advantages of the image that is concrete, pleasing the reader, the picture can overcome the problem of space and time limitation, the image media can overcome the limitations of observation, can clarify a problem, and cheap price without the need of special equipment. Based on the results of research Afriyanti et al University of Tanjungpura Pontianak in the journal Use Picture Media to improve the activity and learning outcomes of state elementary school students showed the results of the use of media images in the limbs renewal increased [7]. Increase percentage before giving the media of image amount 58.94% then increase as much 13.7% become 72.72% after given information by using media of picture.
TABLE I. GRADATION ANSWER OPTIONS

<table>
<thead>
<tr>
<th>Gradation</th>
<th>Explanation</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Very good</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Pretty good</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>Not good</td>
<td>1</td>
</tr>
</tbody>
</table>

The calculation formula used is based on Suharsimi’s calculation [10]:

\[
\text{Final value} = \frac{\text{Number of scores obtained}}{\text{Maximum value}} \times 100
\]

After getting the percentage with the formula above then do the interpretation of the percentage results into categories. Determining the score, the rating category using the standard 100 categorize the value of four, then each part distance value 25. According Suharsimi [11]: "Value of BS = Very good, if the range is 76 - 100, Value B = Good, if span 51 - 75, Value C = Enough, if span 26 - 50, K = Less value, if span less than 26."

B. Data Analysis of Career Fantasy Scale

The career fantasy scale used in this study is with a choice of graded answers or using a rating of 1 to 3. Alternative answers in accordance with the ability of grade 2 elementary school students and in accordance with examples of operational guidance formats guidelines for the implementation of Guidance and Counseling in primary schools and assessment of learning curriculum 2013 revision 2017. The method of analysis used by researchers to find out the results of the effectiveness test module of career information with the aim of improving student career fantasies.

TABLE II. GRADATION ANSWER OPTIONS

<table>
<thead>
<tr>
<th>Explanation</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Know</td>
<td>2</td>
</tr>
<tr>
<td>Less Know</td>
<td>1</td>
</tr>
<tr>
<td>Do not know</td>
<td>0</td>
</tr>
</tbody>
</table>

Analysis of data used to determine the improvement of career fantasy students after and before using the career information display module that is using the calculation of average gain score of each student with the following formula:

\[
\text{Gain} = \frac{\text{skor post test} - \text{pre test}}{\text{skor maksimum} - \text{pre test}}
\]

Next determine the criteria for improvement of cognitive values listed in the following table:

TABLE III. CRITERIA AGAIN SCORE

<table>
<thead>
<tr>
<th>Limitations</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>g ≥ 0.7</td>
<td>High</td>
</tr>
<tr>
<td>0.3 ≥ g &lt; 0.7</td>
<td>Medium</td>
</tr>
<tr>
<td>g &lt; 0.3</td>
<td>Low</td>
</tr>
</tbody>
</table>

The information contained in the module is as follows: job name, clothing or uniform, tools used at work, working time, and job duties and responsibilities. The following employment information by adopting the types of work environment Holland:
B. Develop Measuring Tool

Instrument validation career information module to improve the career fantasy of elementary school students used to determine the feasibility of media quality and material modules. This is done in the context of BK media development by material experts, media experts, and grade 2 elementary school students as users. The validation of the material expert aims to assess the feasibility of the material content of the career information. While validation from media experts to assess the feasibility and quality of media modules. The questionnaire for the assessment of the material using 3 aspects and 17 item statement and questionnaire media assessment using 8 aspects and 35 items statement item.

Instrument of career fantasy scale to measure career fantasy level of student toward career information of elementary school student of second grade SD Muhammadiyah Sapen. The scale developed is based on the development of the career fantasies of Ginzberg and Michael A. Crabb's. The scale uses 5 aspects as well as 19 items of statement statements.

C. Presentation of Data

Here is a table of the results of the assessment on Field Trials Beginning, Main, and Field Test Operations on the quality of career information module to improve the fantasy career of second grade students SD Muhammadiyah Sapen:

| TABLE V. DESCRIPTION OF THE FANTASY VARIABLE DATA OF CAREER |
|---------------|---------------|---------------|---------------|
| Uji Coba       | Uji Coba       | Uji Coba       |
| Lapangan Awal | Lapangan Utama| Lapangan Operasional |
| 85.71          | 85.95          | 90.37          |

Fig. 2. Career Information Module for Improving the Career Fantasy of Primary School Students

Based on the diagram above research results, it can be concluded that the development of career information module to improve the fantasy career of second grade students Muhammadiyah Sapen elementary school as follows:

1. The trial result of the quality of pictorial module of material information in terms of material obtained 93.57 value included in the category "very good", while the quality of module result from media side get the value 88.23 which is included in "very good" category.
2. Limited trial results of the career information display module seen from the initial field trials with the subject of 6 children scored 85.71 while the main field trial result with the subject of 15 children earned 85.95. The second value of the trial results is limited to the category of "very good".
3. The results of field trials of operational quality of career information module with the subject of 33 children received a value of 90.37 which is included in the category of "very good".

The calculation to determine the effectiveness of the use of information module to improve student career fantasy is to use gain score. It is known that on the scale
scores given before the 1929 career information module with an average of 58.45. Further scores obtained in the questionnaire after students read and understand the contents of career information module amounted to 2162 with an average of 65.52. Then the average increase before and after given career information module of 7.07. Here's a general description of the data: Furthermore, after known mean pre-posttest, inserted into formula gain score to know the effectiveness of use of career information module. The formula according to Hake as follows:

\[
\text{Gain} = \frac{\text{skor post test} - \text{pre test}}{\text{skor maksimum} - \text{pre test}}
\]

\[
= \frac{65.52 - 58.45}{70 - 58.45}
\]

\[
= \frac{7.07}{11.55}
\]

\[
= 0.61\text{ or multiplied 100 be 61%}
\]

Here are the cognitive value improvement criteria in the table:

<table>
<thead>
<tr>
<th>Limitations</th>
<th>Category</th>
</tr>
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<tr>
<td>( g \geq 0.7 )</td>
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</tr>
</tbody>
</table>

Based on the above calculation obtained an average increase of 0.61 or 61% included in the medium category.

**IV. CONCLUSION**

Based on the results of research, the quality of the feasibility of the module obtained the assessment results with the Excellent category of validation of media experts and material experts. After going through the validation of the expert module of career information in the trial in the initial trial with the subject of 6 students of grade II primary school. Initial test results of 6 students got a score of 144 with a value of 85.71 or included in the category of Very Good.

The second phase trial is the main field trial with the number of subjects of 15 students of second grade of Muhammadiyah Sapen elementary school. The main field trial results obtained the number of scores of 361 with a value of 85.95 or entry in the category of Very Good. The last stage of the quality feasibility test is the operational field test with the number of 33 students of grade II of Muhammadiyah Sapen school, the result of the students' assessment of the career information module to improve the career fantasy obtained the score of 835 with the value of 90.37 included in the Very Good category.

This is in line with the entertainment characteristics enjoyed at the end of childhood conveyed by Hurlock namely [12]: Reading, interested in comics, movies, radio and television. So, one of the main attraction of children is pictorial media this is in accordance with the mindset of students in receiving information. Piaget in the Fatimah Ibda describes elementary school children enter thinking concrete operational stage is where in the early day’s children have a vague concept and not clearly become concrete [13]. A clearer picture is conveyed by the cone of Edgar Dale's learning experience in Vienna Sanjaya the learning experience gained can be traversed through the process of deed or experiencing what is learned, the more concrete the students learn the lesson the more experience gained [14]. Furthermore, Edgar Dale explains that the delivery of information only through language (verbal) will lead to misperceptions and students will less and less catch the message.

Edgar Dale's theory is supported by the results of Winataputra research in the journal Sitti Aida & Tjodding which states that visual (sight) has the greatest composition of 75% in terms of the average amount of information one can obtain. Information obtained through vision is also more easily captured and remembered by one's memory [15]. According to Gagne and Briggs in Azhar Arsyad media or physical tools can be used to convey the content of teaching, in other words the media is a component of learning resources that contain instructional materials that can stimulate students to learn [16]. Furthermore, according to Nana Sudjana and Ahmad R explains that the benefits of visual media in this case the pictorial module can help the delivery of information to students more interesting, not impressed monotonous, motivation to learn, more learning activities because students just hearing the teacher's description, and more varied [17]. Thus, the print media module of research development is useful to deliver career information material to be more effective.

The results of this study are in line with the research of Mark Watson & Mary McMahon that studying career information in childhood development is a complex and dynamic interaction between behavior, attributes, and environment [18]. Furthermore, McMahon, Gillies & Carroll mentioned that the development of children's careers can be improved from time to time [19]. Career information is a career guidance strategy that helps students understand job positions, planning preparation, and achievement of career maturity. Hoppock mentions that the job information is a consideration underlying the choice of students, students who receive full employment information can see the world of work more realistically and seek to develop his career [20]. Taking the outline that career information is a basic part to sharpen career exploration, career exploration is that students start thinking of career alternatives but have not yet reached a career decision, students try to explore themselves and try various jobs.
Career exploration according to Donald E. Super is in the adolescent stage with an ongoing process, as reinforced by Edi Purwanta's research states that career exploration is a lifelong learning process of career and development [21]. The lifelong learning process of human career development begins with a career fantasy stage at this stage of a 0-11-year-old boy who is characterized by unrealistic career interests. The selection of a career in the career fantasy stage is limited to desire, pleasure, and not thinking about the risks of work going forward. The statement is in harmony with Ginzberg in Nandang mentions the career options of children at the stage of career fantasy is based only on impression or imagination [22]. This is like Ginzberg's opinion in M. A. Crabb's career fantasy is a lifelong process at all ages [23]. Fantasy activities help the student's brain to build awareness of career choices and lifestyle. Furthermore, for example, children like to play the role of doctors, pilots, play teacher or police. This is because children are confident that they can be anything based on the impression they see in their surroundings.

Students who escalate their career fantasy are characterized by being able to list jobs that Holland's future desire is based on in the journal Fantasy Career Development [24]. This is in line with the statement of Soditz and Vinitsky which explains that techniques involving career fantasy activities are with children being able to name their wishes in the future [25]. The same opinion is expressed by Nandang that if the career fantasy increases the child can do appreciation of his fantasy career [26].

The results of the module of career information that has not yet reached the high category with the acquisition of the value of gain score using module 0.61 or 61% included in the medium category. This is one factor because it has limited time to measure how far the students fantasize with other activities. Sources of information for children show the media will influence them in receiving various jobs.

The other side mentioned that the most important source of information is the role of teachers in school counseling and counseling and planning and implementation of school programs to provide career information for children. This is reinforced by Zunker effective career programs require collaboration from various parties in the school in terms of determining, implementing strategies and methods of career program of elementary school age students [27]. Other opinions that reinforce the role of enhancing the fantasy of careers delivered by Super in Nandang to keep the imagination or delusion of children who do not match the role of teachers or parents who have a moral duty to participate in developing career fantasies in accordance with the real career [28].

The module to be more optimal should be supported by the program of guidance and career counseling in schools. This has been strengthened in the Attachment to the Minister of Education and Culture of the Republic of Indonesia number 111 of 2014 on guidance and counseling on primary and secondary education stated that in one primary school or cluster or number of primary schools can be appointed teachers counseling and counseling or counselor to provide services guidance and counseling.

The same thing was conveyed by Auger, et al the role of homeroom teacher to help elementary school students in the process of acquiring career knowledge and deepening career interests [29]. Furthermore, ASCA provides an overview for the school program in accordance with the needs of elementary school students. ASCA's design school programs for career development include developing the skills of finding, evaluating and translating career information, showing career interests, achievement skills, social and personal skills.

Furthermore, it is said that the framework of career development in elementary school students, teachers and parents has a role as a facilitator of career interest in children and for children. In line with these statements Holmes, Nelson, and Nicholas revealed that to explore the benefits of fantasy activity it is necessary career counseling techniques with individual counseling and group counseling [30]. Kierreich in Michael A. Crabb's developed a set of fantasy techniques used during group counseling by drawing a series of pictures as a stimulus, drawing the individual settings in the home, out of the house, and with family [31].

The fantasy career of elementary school students is largely determined by the career information received. Development of right career fantasy in the students need the implementation and planning of basic school guidance and counseling program. there are several techniques that can be done by teachers of basic school counseling and counseling to achieve career development Nandang such as: career information service, career learning integration, career observation, and career days [32].

REFERENCES
