The Effectiveness of Career Information Service with Mind Mapping Technique to Improve Students Occupational Knowledge

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Abstract

This research aims to improve students' career understanding through career information service with Mind Mapping technique. The experimental method used pre-test post-test control group design, involving 2 classes as control group and experimental group. The results of this study indicate that students who obtain career information services with mind mapping techniques have increased understanding of career higher than students who do not get information carrier information with mind mapping techniques.

Keywords:
career comprehension, career information, mind mapping

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INTRODUCTION

Occupational knowledge is the degree of students' knowledge about a career world indicated by a deep recognition of various career information. This means that the student's occupational knowledge level is showed by the level of mastery of various career information (Hartono, 2010).

In a study conducted by Hartinah (2015), she concluded that "The implementation of career information service at school has been going on as it is supposed to be, but has not yet considered to the implementation which can improve students' knowledge and career plans. As a result, these weaknesses would affect toward students' independence in doing careers selection.

Prayitno & Amti (2013) state that the transition from education to work is a very difficult time for many adolescents. The difficulty is not only in the things that are appropriate, but also in self-adjustment and self-development thereafter.

Purwanto (2003) explains that career exploration is a whole activity that aims to increase knowledge and awareness about individuals that can spur career development. Moreover, complete and flexible career exploration will help students be in the right process, whether through cognitive or emotional. This is in line with Suherman (2013) who states that cognitive in adolescences is applied to the process of formal thinking. The adolescents can already think abstractly and logically to make career plans. They are already able use information to predict the outcome of the job.

Nursalim & Khoiryah (2013) argue that one of the reasons of minimum career information or occupational knowledge is caused by the lack of career information service and assessment. In line with this, in fact, it was found that the implementation of guidance and counselling service at school lacked of concern on career field and career information. Therefore, the career information is very limited and affected on students' low understanding on careers.

Based on the results of the study, 47.7% of Senior High School (SMA, MA, SMK) students chose university and 52.3% had no choice of university (Hayadin, 2008); 70% of the total sample of 120 students were confused and having difficulty in determining career decision (Kawenggo, 2010); Junior High School students were not yet mature in seeking career decisions as determined by parents (Muzidi, 2006).

Jennifer (2006) says that career information is beneficial to motivate and stimulate counselees to look for further information and confirm what they have known. In addition, the organization of career information service really needs school counselor's creativity in developing the service given to students and help them to solve any problems. Further, the creativity may cover the use of media, the creation of service materials, and give service to students. According, so far, the implementation of the service only covers information service as well as question and answer. This repeated method actually can facilitate the school counselor in giving service. However, the method can also make students feel bored in receiving and understanding the materials given during the service. This boredom will influence to students ignorance in the materials delivered by the school counselor. As a result, the students can have low occupational knowledge. Another cause of this low occupational knowledge is from the lack of suitable techniques or media to deliver information, so the career information service is less innovative and less interesting to the students and make them had to understand the career materials being delivered.

Mind mapping is done relate concepts about certain problems from the branches of nerve cells to form a correlation of concepts to an understanding and the results are written directly on paper with animations that are preferred and easily understood by writers. As a result, the writing is a direct description of the workings of connections in the brain (Buzan, 2012).

According to (Buzan, 2012), the advantages of mind mapping learning method include: (a) can express opinions freely, (b) be able to work with other friends, (c) notes more dense and clear, (d) easier to find records if
needed, (e) notes more focused on the core of the material, (f) easy to see the whole picture, (g) help the brain to organize, remember, compare and make connections, (h) facilitates the addition of new information, (i) quicker review and (j) unique.

Mind mapping can be done to help learners understand different types of careers or occupations, look at risks and benefits of choosing a job and seeing their potential to adapt to the available careers so that learners are able to understand and be confident in determining career decisions. In addition, the implementation of career information services needs to be maximized. One way to maximize the implementation of career information service to improve career understanding is to use mind mapping techniques on the implementation.

This has been proven by research conducted by Wahyuni (2013) who concludes that the result of the implementation of mind mapping guidance and counselling group is proved to be effective in developing students' creativity.

METHODS

This study used experimental research method in which through this method, the researchers test an idea to determine whether it affects the results or the dependent variable. Creswell (2012). Once the method has been determined, the researcher decided the two groups to be used as research subjects, namely tenth grade students of State Senior High School (SMAN) 1 Purwantoro. The students were then given pre-tests by using a Scale or questionnaire to measure occupational knowledge. Then, treatments were given to research subject (X) by applying Career Information service with Mind Mapping technique. Once it was done, the researchers provided post-tests using Scale or questionnaire to see the improvement of occupational knowledge. Other than that, pre-tests (O1) and post-test (O2) were given to the untreated control group. After the data of the tests were collected, the researchers applied statistical analysis using t-test in order to determine the difference between occupational knowledge before and after the students were given the treatment of career information service with mind mapping technique. Thus, the stages of research conducted at SMAN 1 Purwantoro, Wonogiri are as follows:

![Figure 1. Research Stages](image)

In this study the researchers took samples by using purposive sampling technique (the samples were determined with certain considerations). The samples used for the test instrument in this study amounted to 60 respondents.

Data collection techniques used in this study were using the *Career Decision-Making Difficulties Questionnaire scale* developed by Itamar Gati & Samuel Osipow, et al. (1996) and updated by Itamar Gati, et al. (2012) consisting of 34 items. On that scale, the researcher performed equivalence by backtranslation, expert validation and then instrument testing. Based on the validity test of 34 items statement on each career comprehension scale, all was stated valid (CDDQ scale $r_{xy} > 0.361$ with alpha value of 0.699). The data obtained then analyzed by using t-test.
RESULTS AND DISCUSSION

The occupational knowledge level of the students of SMAN 1 Purwantoro in the experimental group was on average 64.2 (low), while in the control group was on average of 62.8 (low). After obtaining treatment, the average score of students in the experimental group increased to 105.2 (high), while in the control group, which did not receive the treatment of information service with any technique showed result 63.3 (low).

The data were then analyzed using t-test. The results showed that career information service with mind mapping technique could improve student occupational knowledge significantly. Based on the analysis of hypothesis data with \( t_{\text{count}} \leq t_{\text{table}}(1-\alpha) \) criterion, the difference test in the control group and the experimental group showed the results of \( t_{\text{count}} = -17.853, p \leq 0.05 \) then \(-17.853 \leq -0.95\). This proved that the value of \( t_{\text{count}} \) was greater than \( t_{\text{table}} \). Also, the significance value was greater or equal to 0.05. Therefore, it could be concluded that career information service with mind mapping techniques could improve student career understanding.

<table>
<thead>
<tr>
<th>Table 2. Paired Samples Test</th>
<th>M</th>
<th>SD</th>
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<tbody>
<tr>
<td>pre test</td>
<td>64.2</td>
<td>10.4</td>
</tr>
<tr>
<td>post test</td>
<td>105.2</td>
<td>12.1</td>
</tr>
<tr>
<td>gain score</td>
<td>41</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>0.5</td>
<td>0.9</td>
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<td>t</td>
<td>17.6</td>
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The results of statistical test of t-test showed that there was an increase of occupational knowledge and proved that mind mapping technique was effective in improving occupational knowledge of SMAN 1 Purwantoro students. Moreover, the effectiveness of career information service by using mind mapping technique was viewed from the beginning process, namely pretest, treatment and posttest. At the beginning stage, the pretest obtained mean with the total score of 64.2 to the mean total score of 105.2 after been given treatment. Meanwhile, the results of paired samples t-test of pretest and posttest of experimental group showed significant mean difference, namely \( p > 0.01 \). These results indicated a significant increase of students' occupational knowledge after being given treatment in following the career information service using mind mapping technique.

Mind mapping is done to relate concepts about certain problems from the branches of nerve cells to form a correlation of concepts to an understanding and the results are written directly on paper with animations that are preferred and easily understood by the writers. Therefore, the writing is a direct description of the workings of connections in the brain (Buzan, 2012).

The low level of students' occupational knowledge in schools will impact on the future career orientation of students. Therefore, with the use of mind mapping technique in delivering career information services, it was expected to make a new breakthrough in order to improve students' occupational knowledge by analyzing every important thing in making the decision of career selection.

The purpose of providing career information according to Winkel (2005) is not only for the sake of equipping students with knowledge and understanding for the present moment only, but also mastering and understanding the ways of renewing and revising the coming science stock or in the future. The information delivery service is a vital undertaking in the overall planned and organized guidance program. Based on the revelation, it could be concluded that the purpose of career information is to assist the development of self-understanding and self-acceptance for the development of awareness of the consequences of the decision.

CONCLUSION

This study was conducted to improve the occupational knowledge of the tenth grade students of SMAN 1 Purwantoro through information service with mind mapping technique. The results of this research indicate that Information service with mind mapping technique can improve students' occupational knowledge significantly. This is based on the
obtained the value of pretest and posttest on the scale of students' occupational knowledge after being given treatment by the researchers using mind mapping technique.

Furthermore it is important for school counselors to understand comprehensively the concepts of career information services combined with mind mapping techniques as this will affect students about occupational knowledge with the orientation of their future career. In addition, it is expected for further researchers to test career information services with mind techniques mapping against other variables and with different populations & samples.

REFERENCES


