

The Influence of Online Career Counseling “ACIS-Q” The Vocational Secondary High School Students’ (SMK) Career Maturity of in the Province of Jakarta, Indonesia

Awaluddin Tjalla, Herdi, Cecep Kustandi

Abstract— This research is motivated by the results of theoretical studies and empirical facts about the importance of student’s career competence achievement, as well as its development efforts in the implementation of the career counseling at vocational secondary high schools (SMK). The purpose of this study was to test the effect of online career counseling (OCC) model of “ACIS-Q” to the career maturity of students of public vocational secondary high schools of Jakarta, Indonesia. The study used a quasi-experimental method with a design of pretest-posttest non-equivalent groups. The sample included 28 Grade IX students of vocational secondary high schools from five regions of Jakarta. The research sample was captured by using multistage cluster random sampling technique. The data collection was performed by using Career Maturity Inventory. Data were analyzed by using the t-test. Results of hypothesis testing shows that the Sig. (2-tailed) $(0.000) < \alpha (0.05)$, then the H_0 is rejected. It means that there is a significant positive effect of the OCC ACIS-Q model to the improvement of career maturity of grade XI students of public vocational secondary high schools of Jakarta.

Index Terms— Model of online career counseling (OCC) “ACIS-Q”, career maturity, career counseling, vocational secondary high school students.

I. INTRODUCTION

Implementation of the 2013 curriculum mandated specialization program for students at secondary school level, including vocational schools (SMK) managed in order to obtain data and information related to the tendency of students in the direction of their interest (Agency for Human Resources Development and PMP Kemendikbud, 2013a). One important component in service of specialization for vocational schools students is the service program (guidance and career counseling), one of which is the development of

career maturity or career competence of learners. With career maturity (clear specialization), students graduated from vocational schools according to the Agency of Human Resource Development and PMP of the Ministry of Education and Culture (Kemendikbud) (2013b) are expected to have a firm and clear concept of where to go and be upon their graduation.

The policy is urged to be immediately implemented on a massive scale with full planning and preparation. The argument is the empirical facts as proposed by the Ministry of Youth and Sports of the Republic of Indonesia (Reuters, 2012) that the educated unemployment in productive age amounted to 41.81%, and educated unemployment from vocational level amounted to 11.87%. According to the Agency for Human Resources Development and PMP of Kemendikbud (2013b), this condition is due to the empirical fact that the huge tendency of students graduated from vocational schools continue their studies to a higher level is not yet based on the interest direction which is supported by their potential and conditions adequately.

When analyzed on the career development theories, fact about the unpreparedness of vocational school graduates to enter world of work and the increasing number of educated unemployment is caused by the lack of knowledge about their self potential and information on world of work. As stated by experts of career counseling (Super, 1957; Super in Sharf, 1992; Crites, 1986; Zunker, 1990; Osipow, 1990; Herr and Crammer, 1996; Watts, 1999; Patton and Lokan, 2001; Savickas, 2003; Kidd 2006; Hassan, 2006; Gonzaler 2008; Versnel, et al., 2011) that if the individual has information about himself and the world of work adequately, then he will achieve career maturity. Individuals who achieve career maturity is characterized by: (1) actively involved in the activities of a career plan; (2) the desire to explore and obtain career information; (3) have sufficient knowledge and ability to make career decisions; (4) have knowledge of information work and the world of work; (5) deepen work preferred; and (6) realistic in making career decisions.

Mastery of the individual against potential information and information about the world of work is an essential thing that can affect the ability to make career decisions, career maturity and readiness in entering the world of work. In the world of education, each learner should be facilitated to master both the information. One of the educational unit that should play such a role is guidance and career counseling. Career guidance and counseling services in the vocational secondary

Manuscript received April 25, 2016

Awaluddin Tjalla, Department of Guidance and Counseling, Faculty of Education, State University of Jakarta, Jakarta, Indonesia

Herdi, Department of Guidance and Counseling Faculty of Education, State University of Jakarta, Jakarta, Indonesia

Cecep Kustandi, Department of Guidance and Counseling Faculty of Education, State University of Jakarta, Jakarta, Indonesia.

high schools (SMK) is one of the important strategies to help learners (counselee) facing the transition from school to work. Through career guidance and counseling services, learners are facilitated to control information about themselves and the world of work, set educational and career goals, develop career competencies, train the ability to make career decisions, achieve career maturity and readiness to enter the world of work.

Technology experts in career counseling advise the career counselors (teacher guidance and counseling/counsellor) to use and take advantage of information and computer technology (ICT) in career counseling services in schools. ICTs can make the process of transmission and presentation of information is more efficient because it is designed automatically, multiplication and transmitted quickly with a very minimal cost, more secure, interactive, friendly, and personalized so that the process of career information delivery becomes more effective. Content career information can be accessed at any time and place when needed, can be downloaded and used offline, duplicated and distributed using electronic support tools.

The use of ICT in career counseling services have many advantages such as improved career identity, career maturity, self-efficacy, career decision making, control of occupational information and career exploration (Taber and Luzzo, 1999); maximize learning opportunities and easy access to a variety of career resources (Sampson, 2000); facilitate decision-making career (Jigau, 2007); improve the ability of career self-efficacy (Bozgeyikli and Dogan, 2010); improve technological literacy and the ease of accessing the job (Epstein, 1997); and career information (Castilo and Kempner, 2011); as well as a means of self-help in exploring a variety of career information and make a decision to choose a career and be a support system of career counseling activities. Therefore, Copeland et al. (2011) with reference to the results of his research recommends the use and utilization of computer assisted career guidance systems in the context of career counseling with regard counselee career. Results matching found in research conducted by Tjalla, Herdi, and Kustandi (2014) that the model Online Career Counseling (OCC) Assessment Center and Career Information Systems-Q (ACIS-Q) is needed by learners and teachers of vocational secondary schools (SMK) as system supporting the implementation of a career specialization in the curriculum program in 2013 to improve career maturity vocational learners. The stakeholders suggested and hoped that the OCC model of ACIS-Q immediately perfected, disseminated, and used widely for a support system of career specialization courses in the curriculum of 2013.

Based on the study of theoretical and empirical facts, this study focused on testing the effect of the OCC model of ACIS-Q for career maturity of students of vocational schools in Jakarta. The research hypothesis proposed is there are significant OCC model of ACIS-Q to the improvement of career maturity of students of vocational secondary high schools in Jakarta.

II. METHOD

A. Research Design

Research used quasi-experimental method with the pretest-posttest nonequivalent groups design (Heppner, Kivlighan, & Wampold (2008).

$$\text{Non R O}_1 \text{ X O}_2 \tag{1}$$

Figure 1. Pretest-posttest Non-Equivalent Groups Design

B. Research Sample

Samples included 28 students of class IX at Vocational Secondary Schools (SMK) in Jakarta. Samples were taken using multistage cluster random sampling technique. Data collection techniques used instruments Career Maturity Scale and assessment instruments OCC models “ACIS-Q”. Instruments career maturity scale was developed based on career maturity construct presented by Super (1957). Career Maturity format instrument developed in the form of a rating scale 1 - 4. ACIS instrument OCC-Q assessment using an assessment instrument products ICT applications.

C. Data Analysis

Data analysis techniques used to answer research questions about the maturity profile career before and after the implementation of ACIS OCC-Q models are descriptive statistics in the form of a percentage. Categorization career maturity profile position of vocational learners, good overall, aspects and indicators used mean the ideal use of the formula of Azwar (2013) follows.

Tabel 1 Mean Ideal

Category	Criteria
Very High	+ 1,5 σ < X
Height	+ 0,5 σ < X ≤ 1,5 σ
Medium	- 1,5 σ < X ≤ + 0,5 σ
Low	- 1,5 σ < X ≤ + 1,5 σ
Very Low	X ≤ -1.5 σ

Furthermore, for the determination of the percentage of career maturity vocational students used the following formula.

$$P = fN \times 100 \tag{2}$$

Description: P = percentage; f = frequency; N = number of respondents.

The research hypothesis is answered by t - test by Mann Whitney U (Kiess, 1993). Basis for decision-making by looking at the ratio of the value of Sig. (2-tailed) with, is if the Sig. (2-tailed) < (0.05) then rejecte d. Overall data analysis performed using a computerized program help Microsoft Excel 2007 and IBM SPSS 20.0 software for Windows.

III. RESULT

The results showed that the career maturity of students of class XI at SMK in Jakarta prior to the academic year 2015/2016 OCC “ACIS-Q” is at the high category (57.1 %) and the rest is very high (42.9 %). Meanwhile, after the

implementation of OCC “ACIS-Q” at the high category (82.1 %) and moderate (10.7 %) and very high (7.1 %).

Results of research on every aspect of career maturity of vocational school (SMK) students in Jakarta is presented below.

A. Career planning.

Vocational students career planning before implementation OCC “ACIS-Q” at the high category (53.6 %) and the rest is very high (42.9 %) and moderate (3.6 %). Conversely, career planning vocational school students after the implementation of the OCC “ACIS-Q” is the category of very high (60.7 %) and high (39.3 %).

B. Career exploration.

Career exploration of vocational learners before implementing OCC “ACIS-Q” stood at the high category (64.3 %) and moderate (35.7 %). After the implementation of the OCC “ACIS-Q” it became better, reaching a high category (71.4 %) and the rest is very high (28.6 %).

C. Knowledge of Career Decision Making.

Knowledge of career decision-making of vocational learners before implementing OCC “ACIS-Q” stood at the very high category (50 %) and high (46.4 %) and moderate (3.6 %). After the implementation of the OCC “ACIS-Q” it becomes somewhat different, that is the high category (53.6 %) and the rest is very high (46.4 %).

D. Knowledge of Information of the World of Work.

Knowledge of information of the world of work by vocational learners before implementing OCC “ACIS-Q” stood at the high category (50 %) and very high (46.4 %) and moderate (3.6 %). After the implementation of the OCC “ACIS-Q” condition changes to better one, that is at the high category (67.9 %) and the rest is very high (32.1 %).

E. Knowledge of the Preferred Work Group.

Knowledge of occupational groups preferred of the vocational learners before implementing OCC “ACIS-Q” was at the high category (75 %) and very high (21.4 %) and moderate (3.6 %). After the implementation of the OCC “ACIS-Q” condition changes to better one, that is at the high category (60.7 %) and the rest is very high (35.7 %) and moderate (3.6 %).

F. Career Realism.

Career realism of vocational learners before implementing OCC “ACIS-Q” stood at the category of very high (57.1 %) and high (42.9 %). After the implementation of the OCC “ACIS-Q” condition declines to very high category (53.6 %) and high (46.4 %) and moderate (3.6 %).

IV. DISCUSSION

Online career counseling (OCC) “ACIS-Q” was held in five sessions, namely: an introduction to the use of model OCC “ACIS-Q”, pretest, career assessment, career information according to the result of career assessment, career counseling, and post-test. The activities were carried out in two places, namely in the computer laboratory at the Department of Guidance and Counseling, Faculty of

Education, State University of Jakarta for students of Vocational Secondary High Schools; and in the laboratory space of Group Counselling for teachers of Guidance and Counseling/counselor at Vocational Secondary Schools (SMK). The event was held on Saturday, August 29th, 2015. The OCC “ACIS-Q” was carried out by three counselors from lecturers and two students of S1 and S2 programs at the Department of Guidance and Counseling.

Hypothesis testing results as shown in Table 3.1 shows the value of Sig. (2-tailed) (0000) < (0:05), then H0 was rejected. That means there is a significant positive effect of model OCC “ACIS-Q” to the improvement of career maturity of students of class XI at SMK in Jakarta. In other words, the model OCC “ACIS-Q” is effective for improving career maturity of class XI students at SMK. It can be seen from the significant difference in the average scores of career competence of learners at class XI of SMK in Jakarta between before and after the implementation of guidance and Internet-based career counseling (OCC “ACIS-Q”).

Career exploration. Results of testing the hypothesis on aspects of career exploration as seen in Table 3.1 shows the value of Sig. (2-tailed) (0.00) < (0.05), then it is rejected. That is, there is a significant positive effect model OCC “ACIS-Q” to the improvement of career exploration at class XI of SMK students in Jakarta. In other words, the model OCC “ACIS-Q” is effective to improve career exploration at class XI SMK students.

It can be seen from the significant differences in the average scores of students career exploration at class XI of SMK in Jakarta between before and after the implementation of guidance and Internet-based career counseling (OCC “ACIS-Q”).

The less less encouraging result of hypothesis testing is shown in such aspects as career planning, knowledge of career decision-making, knowledge on work group, knowledge of the job market information and career realism. Results of hypothesis testing of each shows the Sig. (2-tailed) in sequence of (0.506; 0.524; 0.357; 0.142; and 0.525) > (0.05), then H0 is not rejected. That means there is no significant positive effect of model OCC “ACIS-Q” to the improvement of career planning, knowledge of career decision making, knowledge on work group, knowledge of the job market information, and career realism of students at class XI of SMK in Jakarta. In other words, the model OCC “ACIS-Q” is not effective for improving career planning, knowledge of career decision-making, knowledge on work group, knowledge of the job market information, and career realism at grade XI students of SMK. It can be seen from the significant difference in the average scores during career exploration for students at class XI of SMK in Jakarta between before and after conducting guidance and Internet-based career counseling (OCC “ACIS-Q”).

Table 2 Overview on Influence of Model OCC “ACIS-Q” to the Career Maturity of Students at Grade XI of SMK in Jakarta

Aspects and Variables of Career Maturity	Sig. (2-tailed)	Decision
Career maturity	0.000	H0 rejected
Career planning	0.506	H0 not

Career exploration	0.000	<i>rejected</i> H0 <i>rejected</i>
Knowledge on career decision-making	0.524	H0 <i>not rejected</i>
Knowledge on the world of work information	0.357	H0 <i>not rejected</i>
Knowledge on occupational groups preferred	0.124	H0 <i>not rejected</i>
Career realism	0.525	H0 <i>not rejected</i>

The results support previous research that computer and internet-based career counseling is effective to develop career maturity of learners. Research by Sampson (2000) showed that the use of computers in the career information service has two main advantages, namely to maximize learning opportunities and facilitate access to various sources of counseling career. It suggests further that internet-based career counseling is widely used to explore employment opportunities, a variety of alternative careers, and assessment of career, thus simplifying the counselor and counselee access various sources of career information. The same opinion expressed by Jigau (2007) that the computer-based career counseling can help provide the necessary information to make career decisions.

The effectiveness of OCC “ACIS-Q”-based career counseling service is also in line with computer and other internet-based career counseling, such as: Information System for Vocational Decisions (ISVD), Educational and Career Exploration System (ECES), Computer Vocational Information System (CVIS), INQUIRY, DISCOVER, System of Interactive Guidance and Information (SIGI), and SIGI Plus (Zunker, 1990). Such programs constitute a data bank or information about education, use of leisure time, career opportunities, and assessing themselves more effectively and efficiently. Computer and internet-based career counseling programs are also used to increase career maturity, career decision-making skills, and alleviation of career problems.

Results of research conducted by Taber and Luzzo (1999) showed that the DISCOVER was effective to improve the career identity, career development level, and the efficacy of career decision-making. DISCOVER was effective to improve the career decision-making ability, mastery of career information, career maturity and career exploration to students in junior high school, high school, college, and adults with career transition. DISCOVER was also effective in stimulating career exploration and career planning activities, such as individual and group counseling. Recommendations for further research was focused on the improvement and enhancement of the limitations of testing methodology.

Computers and internet can be used as auxiliaries in career counseling services, as they provide the latest career information data (Zunker,1990). Assessment in career counseling can be done by using a computer. Assessment of counselees’ interest and aptitude can be done through the computer and the results can be interpreted rapidly, non-judgmental and precisely. Other study conducted by Castilo and Kempner (2011) indicated that access to the Mexican-American students to counselors to conduct career

counseling experienced many obstacles and problems. The presence of online career counseling facilitated counselees to freely access various sources of career information more easily and quickly.

Computers and internet can be programmed with a variety of career information that can be used in career counseling without having to replace the role of career counselors. Therefore, Copeland et al. (2011) with reference to the results of his research recommended the use and utilization of computer assisted career guidance systems in career counseling services. Likewise, Tjalla, Herdi, and Kustandi (2014) with reference to the results of the research recommended the use and utilization of ACIS OCC-Q as one of the support system and the program specialization in vocational career counseling services.

V. CONCLUSION

Some conclusions can be taken from this study. First, career maturity of students of vocational schools in Jakarta stands at the high category. Learners of vocational schools (SMK): (a) are actively involved in a variety of career planning activities; (b) the desire to explore and obtain career information; (c) have adequate knowledge and skills to make career decisions; (d) have knowledge of work information and the world of work; (e) deepen work preferred; and (f) are realistic in making career decisions. Secondly, there is significant positive influence of OCC “ACIS-Q”-based career counseling to the improvement of career maturity of students of vocational schools in Jakarta. Thus, ACIS OCC-Q as one of the support system and the program specialization in vocational career counseling services. OCC ACIS-Q can be used in the specialization program and career counseling services without having to replace the role of counselors.

REFERENCES

- [1] Azwar, Saifuddin. (2001). Reliabilitas dan validitas. Yogyakarta: Pustaka Pelajar.
- [2] Boer, P.M. (2001). *Career counseling over the internet: An emerging model for trusting and responding to online clients*. New Jersey: Lawrence Erlbaum Associates, Inc.
- [3] Bozgeyikli, Hasan, & Dogan, Huseyin. (2010). *The Effect of computer assisted career group guidance on the self-efficacy levels of career decision making in students*. *European Journal of Educational Studies*, 2 (2), 2010, 1946-6331.
- [4] Castilo, L.G., & Kempner, K.P. (2011). Online career counseling with Mexican-American adolescents. *Journal of Technology in Counseling*, 5, issues 1.
- [5] Crites, J.O. (1986). *Career counseling: Models, methods, and materials*. New York: McGrawHill Book Company.
- [6] Dirjen PMPTK Kemdiknas dan ABKIN (2007). Rambu-rambu penyelenggaraan bimbingan dan konseling dalam jalur pendidikan formal. Jakarta: DIKTI Kemdiknas.
- [7] Gonzalez, M.A. (2008). Career maturity: A priority for secondary education. *Electronic Journal on Research Educational Psychology*, 16 (3), 749-772.
- [8] Hassan, B. (2006). Career maturity of Indian adolescents as a function of self-concept, vocational aspiration and gender. *Journal of the Indian Academy of Applied Psychology*, 32 (2), 127-134.
- [9] Heppner, P.P., Kivlighan, D.M., & Wampold, B.E. (2000). *Research design in counseling* (3rd Edition). USA: Thomson Brooks/Cole.
- [10] Herr, E.L., & Crammer, S.H. (1996). *Career guidance and counseling through the life span*. Toronto: Little, Brown & Company.
- [11] Jigau, Mihai, et al. (2007). *Career counseling: Compendium of methods and techniques*. Institute of Educational Sciences, Euroguidance – Romania: AFIR

- [12] Kemdikbud RI. (2013a). Modul asesmen peminatan peserta didik. Jakarta: Kementerian Pendidikan dan Kebudayaan RI.
- [13] Kemdikbud RI. (2013b). Panduan khusus pelayanan bimbingan dan konseling: Pelayanan arah peminatan peserta didik. Jakarta: Kementerian Pendidikan dan Kebudayaan RI.
- [14] Kidd, J.M. (2006). Understanding career counseling: Theory, research, and practice. London: Sage Publications, Ltd.
- [15] Kiess, Harold O. (1993). Statistical concepts for the behavioural sciences. Boston: Allyn and Bacon.
- [16] McMahon, M., Patton, W. (2006). Career counseling: Constructivist approaches. London: Routledge.
- [17] Osipow, S.H. (1996). Theories of career development. New Jersey: Prentice-Hall Inc.
- [18] Patton, W., & Lokan, J. (2001). Perspectives on Donald Super's construct of career maturity. *International Journal for Educational and Vocational Guidance*, 1, 31–48.
- [19] Pusat Kurikulum Balitbang Depdiknas Pusat Kurikulum Balitbang Depdiknas (2007). Naskah akademik kajian kebijakan kurikulum SMK. Jakarta: Puskur Balitbang Depdiknas.
- [20] Sampson, J. P., Jr., & Lumsden, J. A. (2000). Ethical issues in the design and use of internet-based career assessment. *Journal of Career Assessment*, Vol. 8(1), 21-35.
- [21] Savickas, M.L. (2003). Advancing the career counseling profession: Objectives and strategies for the next decade. *The Career Development Quarterly*, 52, 87-92.
- [22] Sharf, R. S. (1992). Applying career development theory to counseling. California: Brooks/Cole Publishing Company.
- [23] Super, D.E. (1957). The psychology of careers. New York: Harper & Row.
- [24] Sweet, Richard. (2001). Career information, guidance and counselling services: Policy perspectives. *Australian Journal of Career Development*, 10 (2), 11-14.
- [25] Taber, B.J., & Luzzo, D.A. (1999). A Comprehensive review of research evaluating the effectiveness of DISCOVER in promoting career development. ACT's Research Report Series, 99 (3).
- [26] Tjalla, Awaluddin., Herdi, and Kustandi, Cecep. (2014). Pengembangan model online career counselling untuk meningkatkan kematangan karir peserta didik di SMK. Jakarta: Universitas Negeri Jakarta.
- [27] Versnel, Joan, et al. (2011). International and national factors affecting school-to-work transition for at risk-youth in Canada: An integrative review. *The Canadian Journal of Career Development/Revue canadienne de développement de carrière*, 10 (1).
- [28] Watts, A.G., et al. (1999). Rethinking careers education and guidance: Theory, policy, and practice. London : Routledge.
- [29] Whiston, S.C. (2000). Principles and application of assessment in counseling. United States: Brooks/Cole.
- [30] Zunker, V. G. (1990). Career counseling: Applied concepts of life planning (2nd Edition). Monterey, California: Brooks/Cole Publishing Company.

Awaluddin Tjalla has completing the Diploma of Higher Education Planning with Distance Education System (distance learning), organized by UNESCO/ IIEP (Institut international de planification de l'education) Paris. S1 (undergraduate degree) at the Faculty of Technology and Vocational Education Makassar State University; S1 (undergraduate degree) Faculty of Psychology, University of Indonesia; S2 (Master Program) Evaluation of Research and Education at the State University of Yogyakarta; S2 Master of Professional Psychology; S3 (Doctoral Degree) in the field of Psychology at the University of Indonesia. Currently working as a Lecturer of Department of Guidance and Counseling Faculty of Education, State University of Jakarta. Contact can be made via the e-mail awaluddin.tjalla@yahoo.com.

Herdi has completing the S1 (undergraduate degree), S2 Master and S3 (Doctoral degree) in the field of Guidance and Counseling at the Universitas Pendidikan Indonesia. Currently working as a lecturer at the Guidance and Counseling Department Faculty of Education, Universitas Negeri Jakarta, Indonesia. Contact can be made via the e-mail herdiunj5@gmail.com.

Cecep Kustandi has completing S1 (undergraduate degree) at Curriculum and Education Technology the Faculty of Education, Indonesia University of Education; S2 (Master Program) Curriculum Development at the Indonesia University of Education; Dissertation completion at S3 (Doctoral Degree) in the Education Technology at the State University of Jakarta. Currently working as a Lecturer of Department of Educational Technology, Faculty of Education, State University of Jakarta. Contact can be made via e-mail at cecepkustandi@gmail.com.