

Developing a Career Guidance Model for Students with Hearing Impairment

**Endang Pudjiastuti Sartinah^a, Esa Nur Wahyuni^b, Sri Joeda Andajani^c,
Eryana Fatimasari Retno Budiati^d, Muhammad Nurul Ashar^e,**
^{a,b,d,e}Universitas Negeri Surabaya, Indonesia, ^cUniversitas Maulana Malik
Ibrahim Malang, Indonesia, Email: ^aendangsartinah@unesa.ac.id, ^besanw@uin-malang.ac.id,
^csriandajani@unesa.ac.id, ^deryana.frb01@yahoo.com,
^emuhhammadnurulashar@unesa.ac.id

This research intends to inform the design and implementation of an accurate and feasible program for hearing impaired students. The specific goal of this developmental research is to produce a career guidance model focused on self- knowledge and occupational knowledge for students with hearing impairment in a Special Senior High School. The developmental research applied in this study was modified from the Borg & Gall model. The data were analyzed using a Paired Samples t-Test. Results indicated the need for a career guidance model that develops hearing impaired student self-knowledge and occupational knowledge; and small-scale testing data showed an increase in these specific knowledge levels throughout this study. Therefore, it can be concluded that a self-knowledge and occupational knowledge career guidance model for hearing impaired students of a Special High School, is feasible and effective in optimizing change in knowledge and skills specific to self-knowledge and occupational knowledge.

Key words: *Career Guidance, Students with Hearing Impairment, self-knowledge, occupational knowledge.*

Introduction

For every individual, self-knowledge and occupational knowledge play an essential role in career choice and development as key components of career guidance that are used to guide, manage and plan career development for the future. Career guidance as a service process is delivered by a counselor or guidance teacher to either a student or a group of students. Career guidance is imperative at all ages in life: to inform and assure ongoing self-knowledge, education choice and job options; adjust training and professional learning to meet job vacancy demand and realize and or manage individual career paths (Crişan et al., 2015; Gati et al., 2019). Self-knowledge in this research encompasses self-description, self-assessment, self-respect and self-acceptance and is a process of self-recognition or self-understanding (Baumeister & Vohs, 2018; Gertler, 2017). Occupational knowledge, a person's understanding of the role and conditions of an occupation or job, is the cognitive comprehension of an individual, particularly the knowledge of their ability as a required component to secure a job (Hordern, 2016).

Students with hearing impairment struggle to plan for their future in the context of their career aspirations and relative strengths and capabilities as a direct result of both their physical handicap and a lack of self-knowledge, realistic career guidance and decision-making support. Self-knowledge, the capability to know, recognize, understand, realize and accept the self-condition on a regular basis (Bransen, 2015) is identified as a difficult concept for students with hearing impairment. The hearing impaired tend to face higher rates of unemployment as well as underemployment (De Veirman, 2015; Perkins-Dock et al., 2015), are likely to earn less and have fewer promotional opportunities when compared to their hearing colleagues (Kelly, 2015; Kurz et al., 2016; Punch, 2016).

In the context of self-knowledge and occupational knowledge, Cognitive Information Processing (CIP) theory explains that there are three domains involved in career choice problem solving: (1) knowledge domain, (2) decision making skill domain and (3) executive processing domain (Lachman et al., 2015; Zunker, 2002). CIP theory is valuable in the development of a career self-knowledge and occupational knowledge guidance model for hearing impaired Special Senior High School students. The CIP theory knowledge domain in career planning requires that career guidance initiate with knowledge and understanding of a potential occupation. For hearing impaired students, this knowledge or comprehension must be an early focus to prepare them for future careers and as such the knowledge domain has been a focus of this research. Further, the development of career guidance model in this study is based on the individual hearing impaired student's characteristics and needs,

The important consideration key to this research then, is the design and choice of guidance services for students with hearing impairment such that it is conducive learning that guides students with maximal appropriacy and potency. This research found the priority in guidance

service design and implementation for hearing impaired students then is a group guidance using group discussion technique (Brunner et al., 2014; Corey, 2011) to develop key self-knowledge and occupational knowledge. This study found that there is no career guidance of this nature for Indonesian hearing impaired students and that the main role of counselors and teachers at a Special Senior High School for Hearing Impairment should be as a conduit in the development of self-knowledge and occupational knowledge.

A plethora of studies have investigated the career guidance program to improve the understanding of self-efficacy and vocational development self-efficacy (Ferrari et al., 2015; Meijers et al., 2013). Only a small number of these studies however, have examined the role of the family in enhancing the career development of young people with hearing impairment (Michael et al., 2013). Even fewer studies emphasize self-knowledge and occupational-knowledge in this context. This study aims: 1) to produce a career guidance model for hearing impaired students which contains (a) the required steps for counselors and teachers as translators or providers (b) the specific counseling strategies for students and (c) the resources and materials for career guidance 2) to test a career guidance model for self-knowledge and occupational knowledge developed specifically for students with hearing impairment at a Special Senior High School.

Method

The development of the career guidance model in this study is underpinned by the knowledge domain: 1) self-knowledge including (a) interest, (b) ability, (c) personality and (d) value and behaviour and 2) occupational knowledge consisting of (a) goal or individual thinking pattern towards an occupation and (b) making a connection between self-knowledge and the aspired job domain. The study utilized Borg & Gall's, (1989) development research model which consists of 10 steps, adapted in this research context with an application of six of these steps (Dick et al., 2001) which are described as follows:

1. Explore and collect information to be developed through: a) literature study and b) field study (interview, observation, and documentation),
2. Plan the career guidance program for self-knowledge and occupational knowledge by sequencing the product delivery.
3. Develop the product by arranging the career guidance model prototype.
4. Conduct a validation test of product design with an expert team of counseling guidance, special education and learning design experts.
5. Revise the main product design based on expert panel review recommendations.
6. Perform small scale field tests.

Results and Discussion

A. The Career Guidance Model for Students with Hearing Impairment

This career guidance model, developed to help students with hearing impairment in a Special Senior High School for Hearing Impairment intended to create capacity for self-recognition and understanding of both themselves and the job environment to arrange, choose and plan toward a future career decision. The content of this career guidance model of self-knowledge and occupational knowledge comprises two main topics: 1) self-knowledge (interest knowledge, ability knowledge, personality knowledge and value and behavior knowledge, and 2) occupational knowledge (goal knowledge and individual thinking pattern development in the context of job knowledge related to self-knowledge and the intended occupation domain).

This career guidance model emphasizes utilizing manuals for career guidance (Zunker, 2002), with a CIP lens underpinning the development of hearing impaired students' knowledge domain to enhance self-recognition and career aspiration and success. The essence of this career guidance is to optimize the guidance activity provision for the hearing impaired and in practice, the collaboration between counselors and teachers in delivery of this model is an operational role and responsibility (Cowie & Pecherek, 2017; Gregorcic-Mrvar & Mazgon, 2017; Kok & Low, 2017).

The career guidance model for self-knowledge and occupational knowledge was tested among ten first grade students with hearing impairment from one Special Senior High School for Hearing Impairment in Surabaya, Indonesia. The results of the data analysis are related to student self and occupational knowledge prior to guidance model intervention follow.

1. Life experience which connected to the job and not a lesson
 - a. There is a student who wants to help their parent 'make up' brides.
 - b. Four students are interested in developing computer skills.
 - c. One student has participated in a dance competition at school and regency levels.
 - d. Two students are interested in learning cooking skills.
 - e. Four students are interested in developing skill in a sport.
2. Reflection of jobs which are suited to the student's ability
 - a. One student is enthusiastic to follow their parent's and become a bridal makeup artist. He or she tries to improve his or her skills and knowledge. He or she applies his or her skills by 'making up' his/her friends in his/her neighborhood.
 - b. Four students have learned computer skills from their teacher and they are confident to share their ability with friends.
 - c. A student joins a dance group and he/she performs a dance in a farewell party program and participates in a dance competition.
 - d. Two students want to learn cooking skills and participate regularly in a cooking competition in their village.

- e. Four students are interested in a sport, training frequently and join a youth sports club.
- f. One student, during rest time, tries to learn make up-skills by visiting a beauty salon and practicing it with his/her friends.
- g. Four students like to rent a computer and participate in computer lessons together.

The career guidance model developed through this study, restructured cognitive processing, empowering the students to use a four step procedure that developed self-knowledge and occupational awareness as follows:

1. Identify the problem of self-knowledge and occupational knowledge in their career.
2. Complete directed challenges to solve the self-knowledge and occupational knowledge problem identified for their career.
3. Direct change to plan for their career into the future.
4. Realize and continue to strive for self-knowledge and occupational knowledge.

It is well supported that career guidance must be purpose-fit to meet identified student needs (Janeiro et al., 2014; MEREUTA, 2018). The career guidance service for hearing impaired students developed through this study, achieved the purpose of actualizing the ability of teachers and counselors as translators such that they gave maximal opportunities and practice for self and occupational knowledge (Iswari, 2017); Ojo & Samson 2014) in support of career development.

B. Acceptability of The Career Guidance Model for Self-Knowledge and Occupational Knowledge for Students with Hearing Impairment

The validation of the model was conducted by a panel of three experts, including an expert on counseling guidance from the Universitas Negeri Malang, an expert on special education from the Universitas Negeri Surabaya and an expert in learning design (learning technology) from the Universitas Negeri Surabaya. The results from this validation were used to revise the product.

Specifically, the results of the analysis of self-knowledge data identified interest, ability, personality and value and behavior as well as the goal or individual thinking pattern toward the job and connection between self-knowledge and job aspiration. This data was utilized to revise the research questionnaire before its application in a small scale trial test or main field test.

The reliability of this hearing impaired career guidance model was tested by counseling guidance experts. Expert I stated that 1) the language in the career guidance material is too formal; 2) the pictures on the material are mostly inappropriate for students with hearing impairment and 3) there are several sentences that are not operational for self-knowledge and occupational knowledge counseling guidance procedure-related learning.



The resulting questionnaire, which was used in the trial tests, both pre-test before intervention and post-test after the intervention with the respondent group, evidences improved knowledge and skill. Indeed, this is supported by previous studies which reported that knowledge and skill could be gained after such interventions (Brady et al., 2016; Garrote et al., 2017). In application of the model, focus group discussion was modified based on the characteristics and ability of the students. The success of learning depended on the class situation. The existence of manuals, career guidance texts and other learning sources plays an important role in the class activity and learning (Joo et al., 2017). Moreover, the teacher and counselor have to be innovative and differentiate the learning to cater a wide range of guidance service activities to engage hearing impaired students for optimal results.

The data analysis was conducted using a Paired-Samples t-Test. The results show that there is a significant improvement between the pre-test and post-test data specific to the knowledge of both self: interest, ability, personality, value and behavior and goal; and individual occupational thinking pattern with regard to career aspiration and connection between self-knowledge and job.

Conclusion

A career guidance model for self-knowledge and occupational knowledge was developed and delivered to students with hearing impairment at a Special Senior High School. A significant improvement in self-knowledge and occupational knowledge was evidenced through a comparison of pre and pre career guidance model in this study. These findings can be used to underpin future career guidance service in this context and to highlight the crucial role of teachers and counselors in this domain.



REFERENCES

- Baumeister, R. F., & Vohs, K. D. (2018). Strength model of self-regulation as limited resource. In *Self-Regulation and Self-Control* (pp. 78–128). Routledge. <https://doi.org/10.4324/9781315175775-3>
- Borg, W. R., & Gall, M. D. (1989). Educational research: An introduction, (pp. 668-737). *White Plains, NY: Longman.*
- Brady, N. C., Bruce, S., Goldman, A., Erickson, K., Mineo, B., Ogletree, B. T., Paul, D., Romski, M. A., Sevcik, R., Siegel, E., Schoonover, J., Snell, M., Sylvester, L., & Wilkinson, K. (2016). Communication Services and Supports for Individuals With Severe Disabilities: Guidance for Assessment and Intervention. *American Journal on Intellectual and Developmental Disabilities, 121*(2), 121–138. <https://doi.org/10.1352/1944-7558-121.2.121>
- Bransen, J. (2015). Self-Knowledge and Self-Love. *Ethical Theory and Moral Practice, 18*(2), 309–321. <https://doi.org/10.1007/s10677-015-9578-4>
- Brunner, J. L., Wallace, D. L., Reymann, L. S., Sellers, J.-J., & McCabe, A. G. (2014). College Counseling Today: Contemporary Students and How Counseling Centers Meet Their Needs. *Journal of College Student Psychotherapy, 28*(4), 257–324. <https://doi.org/10.1080/87568225.2014.948770>
- Corey, G. (2011). *Theory and practice of group counseling*. Nelson Education.
- Cowie, H., & Pecherek, A. (2017). *Counselling: approaches and issues in education*. Routledge.
- Crișan, C., Pavelea, A., & Ghimbuț, O. (2015). A Need Assessment on Students' Career Guidance. *Procedia - Social and Behavioral Sciences, 180*, 1022–1029. <https://doi.org/10.1016/j.sbspro.2015.02.196>
- De Veirman, S. (2015). Deaf and disabled? (Un)Employment of deaf people in Belgium: a comparison of eighteenth-century and nineteenth-century cohorts. *Disability & Society, 30*(3), 460–474. <https://doi.org/10.1080/09687599.2015.1014087>
- Dick, W., Carey, L., & Carey, J. O. (2001). The systematic design of instruction. 6th. *New York: Longmann.*
- Ferrari, L., Ginevra, M. C., Santilli, S., Nota, L., Sgaramella, T. M., & Soresi, S. (2015). Career exploration and occupational knowledge in Italian children. *International Journal for Educational and Vocational Guidance, 15*(2), 113–130.
- Garrote, A., Sermier Dessemontet, R., & Moser Opitz, E. (2017). Facilitating the social participation of pupils with special educational needs in mainstream schools: A review of school-based interventions. *Educational Research Review, 20*, 12–23. <https://doi.org/10.1016/j.edurev.2016.11.001>



- Gati, I., Levin, N., & Landman-Tal, S. (2019). Decision-Making Models and Career Guidance. In *International Handbook of Career Guidance* (pp. 115–145). Springer International Publishing. https://doi.org/10.1007/978-3-030-25153-6_6
- Gertler, B. (2017). *Privileged access: Philosophical accounts of self-knowledge*. Routledge.
- Gregorcic-Mrvar, P., & Mazgon, J. (2017). The role of the school counsellor in school-community collaboration: The case of Slovenia. *International Journal of Cognitive Research in Science, Engineering and Education*, 5(1), 19–29. <https://doi.org/10.5937/ijcrsee1701019g>
- Hordern, J. (2016). Differentiating knowledge, differentiating (occupational) practice. *Journal of Vocational Education & Training*, 68(4), 453–469. <https://doi.org/10.1080/13636820.2016.1234506>
- iswari, mega. (2017). Career Guidance Model in Independence of Deaf Children in Time After Special Senior High School. *Journal of ICSAR*, 1(2), 131–133. <https://doi.org/10.17977/um005v1i22017p131>
- Janeiro, I. N., Mota, L. P., & Ribas, A. M. (2014). Effects of two types of career interventions on students with different career coping styles. *Journal of Vocational Behavior*, 85(1), 115–124. <https://doi.org/10.1016/j.jvb.2014.05.006>
- Joo, Y. J., Park, S., & Shin, E. K. (2017). Students' expectation, satisfaction, and continuance intention to use digital textbooks. *Computers in Human Behavior*, 69, 83–90. <https://doi.org/10.1016/j.chb.2016.12.025>
- Kelly, R. R. (2015). The employment and career growth of deaf and hard-of-hearing individuals. Rochester, NY: REACH Center for Studies on Career Success, National Technical Institute for the Deaf, Rochester Institute of Technology. Retrieved from *Raising and Educating Deaf Children Website: Http://Raisingandeducatingdeafchildren.Org/Node/21239*.
- Kok, J. K., & Low, S. K. (2017). Proposing a collaborative approach for school counseling. *International Journal of School & Educational Psychology*, 5(4), 281–289. <https://doi.org/10.1080/21683603.2016.1234986>
- Kurz, K. B., Hauser, P. C., & Listman, J. D. (2016). Work-related resilience: Deaf professionals' perspectives. *JADARA*, 50(3), 88–109.
- Lachman, R., Lachman, J. L., & Butterfield, E. C. (2015). *Cognitive psychology and information processing: An introduction*. Psychology Press.
- Meijers, F., Kuijpers, M., & Gundy, C. (2013). The relationship between career competencies, career identity, motivation and quality of choice. *International Journal for Educational and Vocational Guidance*, 13(1), 47–66. <https://doi.org/10.1007/s10775-012-9237-4>



- MEREUTA, C. (2018). The Importance of Professional Counseling and Career Guidance in Technical Faculties. *The Eurasia Proceedings of Educational and Social Sciences*, 10, 244–247.
- Michael, R., Most, T., & Cinamon, R. G. (2013). The Contribution of Perceived Parental Support to the Career Self-Efficacy of Deaf, Hard-of-Hearing, and Hearing Adolescents. *Journal of Deaf Studies and Deaf Education*, 18(3), 329–343. <https://doi.org/10.1093/deafed/ent012>
- Ojo, I. O., & Samson, A. A. (2014). Meeting the Psychosocial needs of students with Hearing Impairment through Counselling Services. *African Journal for the Psychological Studies of Social Issues*, 16(2), 216–221.
- Perkins-Dock, R. E., Battle, T. R., Edgerton, J. M., & McNeill, J. N. (2015). A Survey of Barriers to Employment for Individuals Who Are Deaf. *Journal of the American Deafness & Rehabilitation Association (JADARA)*, 49(2).
- Punch, R. (2016). Employment and adults who are deaf or hard of hearing: Current status and experiences of barriers, accommodations, and stress in the workplace. *American Annals of the Deaf*, 161(3), 384–397.
- Zunker, V. G. (2002). *Career counseling: Applied concepts of life planning*. Wadsworth Publishing Company.