

# Testing and Assessment for Career Guidance and Counseling in School Setting

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## Abstract

*Schools offer a transition to the job world so that the individual can contribute to peace and harmony in the family, society as well as the country. The career planning of individuals should start when they are in school because school is a place for developing talent, ability, potential and personality. Testing and Assessment is an important part for Career Guidance and Counseling in the school setting. Testing and assessment is essential in helping the career exploration process, especially in the process of self-understanding, to assess the strengths and weaknesses, as well as to explore the potential of students. The use of psychological test enables the career counselor to gather useful information about the students and to help them in their career development especially in making career decisions. Assessment procedures used in career development programming and career counseling can be classified as objective, qualitative, and clinical. Objectives and qualitative assessment approaches are basic to career counseling and development. Clinical assessment is often based on a combination of objective and qualitative assessments as well as the counselor's hunches about the client. Throughout the history of the career counseling and development movement, objective or standardized tests have been emphasized. Standard tests in career counseling include intelligence test, aptitude test, interest test, personality test, job value test and career competency test. Qualitative methods of assessment such as job shadowing, role-play are potentially very useful. School is an important time for students start to decide on career matters. Thus, it can be said that the testing and assessment is a "tool" for the school counselor in career guidance and counseling.*

**Keywords** *assessment, testing, career, counseling, school.*

## INTRODUCTION

The academic world is like a bridge or path that has to be taken by all young people before entering the job market which is more challenging. Hence, students are required to think about career choices and career planning. The career planning of individuals should start when they are in school because school is an important time for

students to develop career awareness, make career plans, and start to decide on career matters. School, especially secondary school (high school), is viewed as a critical time during which students need to make career decisions such as orientation to a career choice, career exploration involving self-appraisal, and commitment to career choice (Germeijs & Verschueren, 2006). Testing and assessment are essential in helping the career exploration process, especially in the process of self-understanding, to assess the strengths and weaknesses, as well as to explore the potential of students. The benefit of assessment and testing in career guidance and counseling is undeniably an effective tool for school counselors in career guidance and counseling.

Information about the student's talent, potential and ability can be used in helping the students in making career decisions and career plans. The use of psychological tests such as personality inventory, career interest inventory, job value inventory, achievement test and aptitude tests are virtually a must in career counseling. If the students are provided with effective career guidance, they can become both knowledgeable and focused in their career development (Trusty, Niles, & Carney, 2005).

There are many definitions offered by experts on psychological tests. Psychological tests are systematic procedures to observe human behavior and the results are measureable and categorized. Psychological tests generally produce graphs and profiles which generally do not have any meaning unless there is a proper interpretation of these profiles (Sidek, 2002). Tests and inventories may be paper and pencil tests or may have been adapted for computer administration and/or scoring. Qualitative assessment approaches, in contrast to objective approaches, are bound with less rigid parameters.

## **CAREER AND CAREER DEVELOPMENT**

According to Zunker (2002), career refers to activities and the individual's position in work, or whatever is being done or related to the job that an individual has done all his or her life. Career is very important in life. The job itself determines many aspects in an individual's life including what should be done with the majority of one's time and income. It often determines the condition of one's home, social status and economic status; it also determines one's mate and friends. An unsuitable career can result in dissatisfaction and failure because a job done by an individual is not only to support one's life and one's family but it is also one's way of living (Suradi Salim, 2001).

Career development is the total constellation of economic, sociological, psychological, educational, physical, and chance factors that combine to shape one's career (Sear, 1982). According to Brown (2006), career development has been, and continues to be, a major concern of lay people and professionals alike. The professionals have two common concerns: finding ways to deliver career information more effectively and facilitating the career choice-making process. The career development process starts since childhood and tends to speed up with age during adolescence, therefore becoming one of the most important processes during the school years. School is a stage in which many individuals begin to make important career and educational decisions (Super, 1994). Testing and assessment used in career guidance and counseling help one to understand oneself and subsequently help in one's career development.

## **MALAYSIAN ETHICS IN TESTING AND ASSESSMENT**

The Malaysian Counseling Association (PERKAMA) has outlined specific ethics for Testing and Assessment. These are the guidelines counsellors in Malaysia must follow:

1. The counselor should provide a full explanation to the client regarding the test so that the test result can be received by the client in the right perspective.
2. The counselor must be cautious in using the test. Different tests need different levels of qualification to operate and interpret. The counselor needs to be aware about his limitations and only run the tests that he has competence in.
3. The purpose and usage of the test results must be explained to the client prior to the test being started, unless there is an explicit agreement before that.
4. The counselor should give a detailed explanation when giving statements to the public regarding the test and testing. The counselor should avoid making false claims or providing the wrong perceptions and interpretations.
5. The counselor should ensure that the test result is not misunderstood or abused.
6. To teach or to inform the candidate of items in the tests prior to running the test may render the test results invalid. As such, close surveillance on the test material is one of the responsibilities of members.
7. Tests must be run under conditions considered the norm. If tests are carried out under abnormal conditions or something happens during the tests, these must be recorded. The test results must then be declared invalid or doubtful.
8. The counselor must be careful when interpreting a test result when the material or tools are not adequate. The main reason for using the tools or test material must be clearly explained to the client.
9. The test results given to the candidate or other related parties for the purpose of evaluation and classification must be monitored so that they would not be misused.
10. The counselor must be careful when making an evaluation or interpretation of the test results for candidates if the test material is not the standard test. Counselors using tests from abroad should pay special attention in using and interpreting the test results to take into account the culture of the normal group where the test is being used for the sake of standardization.
11. The counselor must be cautious so as not to plagiarize, modify and use any tests that are produced without permission from the producer or publisher.

## **CAREER THEORY AND THE USE OF TESTING AND ASSESSMENT**

Theories on career are symbolic as maps for counselors in helping their clients. Theories of career choice and development offer counselors guides to the complex phenomena involved in the process of helping the clients' in their career development (Brown, 2006). It is found that the importance of the role of testing and assessment has been discussed in career theories including the trait and factor theories, Holland's theory of vocational choice and Super's life-span, life-space theory.

## **Trait and Factor's Theory**

The history of the development of career theories began in the early 20th century with Parson who introduced the Trait and Factor Theory. The Trait and Factor Theory is one of the early theories that attempts to relate the choice of career based on the theory of differences between individuals. The original model of vocational development by Frank Parsons in 1909 emphasized the importance of "personal analysis" in promoting individual self-understanding. This theory states that each individual has a unique capability pattern and traits that can be measured and are in line with the basic needs in a particular job.

In other words, the Trait and Factor Theory uses the approach based on the assessment of the talent, the individual's attitude and other needs for a particular job. Based on the assumption that trait is a psychic and neurological structure that is not easily destroyed, positioned in the brain or the nervous system, psychologists believe that a device could be invented to measure the intrinsic quality of an individual. Thus, inventories and countless psychological tests are used by counselors, especially those who apply the trait and factor approach.

## **Holland's Theory of Vocational Choice**

Holland's Theory of vocational choice is also known as the Holland Typology Theory. This theory is very much influenced by the Trait and Factor Theory and is based on the assumption that an individual's personality is the primary factor in vocational choice. Interest inventories are in fact personality inventories. Individuals develop stereotypical views of occupations that have psychological relevance. These stereotypes play a major role in occupational choice. To be successful and satisfied in one's career, it is necessary to choose an occupation that is congruent with one's personality.

There are 6 pure personality types, which occur rarely if at all in their pure form. These pure types are Realistic (R), Investigative (I), Artistic (A), Social (S), Enterprising (E), and Conventional (C). Realistic people deal with the environment in an objective, concrete, and physically manipulative manner and they like activities that involve motor skills, equipment, machines, tools and structure. Investigative people deal with the environment by using their intellect and they achieve results primarily in the academic and scientific areas. Artistic individuals deal with the environment by creating art forms, products and they prefer musical, artistic, literary and creative activities. Social people deal with the environment by using skills to interact with and relate to others. They prefer educational, therapeutic and religious vocations. Enterprising people cope with the environment by expressing adventurous, dominant, enthusiastic and impulsive qualities. They prefer sales, supervisory and leadership vocations. Conventional people deal with the environment by choosing goals and activities that carry social approval. They prefer clerical and computational tasks, identify with business and put a high value on economic matters.

Many measuring devices have been designed and introduced under Holland's Theory. Among the measuring devices popularly used under the Holland Theory are the Vocational Preference Inventory (VPI) and Self-Directed Search (SDS). Card sort and Occ-U-Sort were developed to measure Holland's personality types.

## **The Super Career Development Theory**

The Super Career Development Theory (Super, 1957, 1980, 1990) is perhaps the most comprehensive developmental theory as it has evolved over 60 years of research. The career development self-concept theory by Super is based on the self-concept in an individual. The career self-concept is the assessment of individuals towards themselves. The individual will understand themselves, assess themselves and act by following their own abilities and efforts.

Super has divided the career self-concept into five stages as a sequence of growth stage (birth-14 years), exploration stage (15-24 years), the establishment stage (25-44 years), the maintenance stage (45-64 years), and the decline stage (65 years and above). These stages may, in turn, be subdivided into (a) the fantasy, tentative, and realistic phases of the exploratory stage; and (b) the trial and stable phases of the establishment stage. The importance of career maturity and job value is also covered in this theory. Super (1957, 1974) had made efforts to identify the more specific dimensions that he considered relevant and developmentally appropriate during the period of adolescence. He referred to these dimensions as indicators of career maturity – a construct that describes an individual's degree of accomplishment of the different career-development tasks appropriate to each stage of development during the period of adolescence (Super, 1957). Super has also defined his ideas in the theory in detail, and in most cases he has taken the difficult route to design a measuring device to rate those cases. Measuring devices such as the Career Development Inventory (CDI) and Career Maturity Inventory (CMI) have made way for the evaluation of students' career maturity and career development.

## **TYPES OF ASSESSMENT AND THEIR ROLE IN CAREER DEVELOPMENT**

Assessment in career development can be divided into quantitative and qualitative approach. Quantitative assessment has standardized administration and scoring procedures. Qualitative assessment approaches are bound by less rigid parameters and the scoring is more subjective. Some of the 'qualitative' device identified by Goldman (1990) can be developed into quantitative approaches to assessment. For example, a card sort, Occ-U-Sort, which is used to measure personality type has a well-defined set of instructions and scoring procedures. Both quantitative and qualitative assessment devices are potentially very useful (Brown, 2006; Sidek, 2002). Some commonly used assessments in career counseling, either quantitative or qualitative approaches, include career-o-gram, role play, card sorts, genograms, self-efficacy measurements, intelligence tests, aptitude test, interest tests, personality test, work value tests, skills tests, diagnostic inventories and achievement test. These assessments are to facilitate the school counselor in helping the students especially high school students in their career development, especially in choosing their career.

## **Career-o-gram**

A Career-O-Gram is a symbolic illustration of a student's career decision making process resulting from the verbal interaction between the counselor and the client and is a qualitative assessment. The expected outcome of the Career-O-Gram is increased understanding of the contextual factors that influenced the career decision making process up to the point of the assessment (Thorgren & Feit, 2001).

The assessment begins when the counselor asks the client or the student to identify his or her earliest career ambition and the factors that encouraged the client either to pursue or discard it. As each goal is identified, it should be represented by a symbol, for example, a circle ( o ) for the initial goal, a u sign ( u ) for the next goal. Each choice should be surrounded by symbols representing contextual factors that influence the particular choice, for example, a dollar (\$) for economic factor and an up arrow ( ^ ) for positive interpersonal.

## **Role Play**

Role play represents an alternative to verbal descriptions. Role play is acting out a social situation to demonstrate how one would, or has, performed. Role play can be used to assess clients' social skills in a wide variety of areas, such as telephone contacts, job interviews and employee-employer interactions.

During the role play, the counselor observes and makes mental notes about the client's strengths and weaknesses. The counselor's observation can be shared with the client after the role play session. If the counselor wants to 'clench' the assessment, the counselor may engage in role reversal. Once completed, the counselor asks the client whether the client's behavior was accurately depicted. If the client answers yes, she is asked to evaluate her own performance during role reversal. The counselor may then provide additional evaluations, and the client and counselor can construct a list of strengths and weaknesses. Intervention follows and usually entails presenting models of desired behaviors, practice through behavioral rehearsal and feedback.

## **Card Sorts**

Card sorts are typically used to assess a variety of variables, including values, interests, job skills and lifestyle preferences. Potential options are placed on a card and the students are asked to sort the cards into stacks of no importance, some importance or great importance while discussing the reasons for the selection.

## **Genograms**

In career counseling, the genogram is used to create a graphic representation of a family tree of careers of the members of a student's immediate or extended family who might have influenced the student's career-related attitudes and career choices.

Once a chart of the family tree is organized, occupations of each person are listed. Students are then asked to report how their relatives felt about their occupations, what

values they tried to engender in the student, and why they believe each person in the chart influenced them either positively or negatively. If the genogram is used correctly, it can assess sources of self-limiting stereotype, expectations about the outcomes of various career choices and development of career values and interests (Brown & Brooks, 1991).

### **Self-Efficacy Measurements**

Self-efficacy is the individual's judgement regarding his or her ability to perform a task at a certain level (Bandura, 1986). Betz and Hackett (1986) were the first to emphasize the importance of self-efficacy expectations on career decision making and drawing on Bandura's work, set forth a model of career decision making based primarily on this construct. The self-efficacy scale can be used on an ongoing basis to assess students' perceptions of their ability to find information about education and occupations, complete interviews with employers or even complete career counseling successfully.

### **Intelligence Tests**

Intelligence means the ability to think and understand. It is also associated with smartness and cleverness. Intelligence is the ability to learn, solve problems or analyze in order to achieve objectives. Intelligence is also the ability to understand one's surroundings, oneself and the ability to face life's challenges. One's level of intelligence affects one's career development and career choices.

Intelligence tests help the student to choose the most suitable course and career. This is done by knowing the client's IQ. Intelligence tests also help in forecasting future progress in the chosen career and avoid the wastage of human resources. Examples of the intelligence tests are Stanford-Binet Intelligence Scale, The Wechsler Scale, and the School and College Abilities Test.

### **Aptitude Tests**

The word 'Aptitude' is derived from the word 'aptos' which means 'suitable for'. Aptitude refers to the traits or signs that indicate the individual may acquire the knowledge or skills or set of responses. Aptitude is also considered as the potential that is unique or unusual for one to acquire the knowledge and skills in multiple fields or a particular field.

Aptitude tests measure one's potential to acquire a skill or learn some specialized knowledge. They play an important role in the choice of course and career. The school counselor usually uses aptitude tests to help clients identify their potential and subsequently choose their career. When taken as one indicator of potential aptitude, tests can assist clients attempting to make career plans or can simply be one way of promoting self-awareness.

Examples of aptitude tests are Differential Aptitude Test, O NET Ability Profiler, General Aptitude Test Battery, Minnesota Clerical Test, Test of Early Mathematics Ability, and The Armed Service Vocational Aptitude Battery.

## **Interest Tests**

The interest test is a means to measure an individual's interest in certain activities in certain jobs based on the work environment (Nowak, 1986). Interest is an orientation of behavior towards an object, activity or a certain experience. It is a statement of like or dislike or attraction and rejection.

The interest test prepares the counselor with the client information regarding likes and dislikes and this gives the counselor a better knowledge of the client. It also helps the client to identify and define his or her interest and choose the right course and career besides knowing the experience consistent with an interest. Interest tests also have a role to inform the counselor of the type and intensity of the client's interest and help to prepare the education and vocational training. It also helps in choosing the right candidate for the job and prevents the individual from frustration, difficulty, disappointment and despair.

A number of inventories have been developed to measure career interests. Examples of interest tests are Self Directed Search, Vocational Preference Inventory, Minnesota Vocational Interest Inventory, Strong-Campbell Interest Inventory and Kuder Preference Records-Vocational.

## **Personality Tests**

Personality is a collection of natural biological factors as well as acquired ones. It is the sum of mental ability, interest, attitude, temperament and other variables relating to thinking, feeling and behavior.

The personality tests help individuals to know themselves especially with regard to their strengths and weaknesses and this is extremely important in choosing a career as well as the aspect of communications at the workplace. However, few personality inventories have captured the interest of career counselors, perhaps because many of those available were developed to measure abnormal behaviour.

Among the personality tests are Myers-Briggs Type Indicator, Minnesota Multiphasic Personality Inventory and Sixteen Personality Factors Personal Career Development Profile.

## **Work Values Test**

Values are learned or may grow out of needs and are assumed to be a basic source of human motivation. Values may have either a positive or negative valence where individuals are assumed to seek or move toward values with a positive valence and move away from values that hold negative valences. The work values test is a tool to measure various job values as positive, negative or neutral based on each case (Nowak, 1986). Work values are one of the most important components in deciding on the suitable career.

The work values test helps in career development by enabling the students to understand the value of their jobs and subsequently choosing a job in line with their work value. Examples of value tests are Super's Work Values Inventory (WVI),

Minnesota Importance Questionnaire (MIQ) and Hammond's Occupational Attitude Rating Scales (OARS).

### **Skills Tests**

Skills tests are done to measure clients' readiness to perform the job or tasks assigned for the job. Skills tests consist of written tests, oral tests, photo tests and behaviour tests. Among examples of skills test for workers are The Seashore-Bennett Stenographic Proficiency Test and The Purdue Test for Electricians. The skills test is useful in helping students to understand their talent and potential and in the attempt to get them placements.

### **Diagnostic Inventories**

A number of inventories have been developed to measure certain career development "problems". These inventories have ability in determining problems that may limit or retard the career development or career decision-making process. Among the diagnostic inventories are My Vocational Situation, Adult Career Concerns Inventory, Career Decision Scale, Career Beliefs Inventory, Career Thoughts Inventory, Career Development Inventory, and Career Maturity Inventory.

### **Achievement Tests**

Achievement tests are tools used to measure the individual's achievement in certain subjects (Nowak, 1986). Generally there are two types of achievement tests: Classroom achievement and standard achievement. Examples of achievement tests are Mathematics test, Chemistry test, Biology test, Physics test, Malay Language test, English test, History test and Geography test.

In the Malaysian context, academic achievement is the main condition for entry into any course. Information on achievement in the test in any subject provides the information on the student's ability in a certain field and his or her success in the future can be forecasted.

## **CHARACTERISTICS OF A GOOD PSYCHOLOGICAL TEST**

The important thing for the school counselor to do when using psychological tests is to choose the right psychological tests that are suitable and good for the benefit of the students. Characteristics of a good psychological test cover the following: Is the psychological test measuring what should be measured? Can the test measure what needs to be measured with consistency? Is the psychological test practical and useful?

A test can be suitable for use especially in counseling and career guidance if it has a high degree of validity, is reliable and has a good application. A test must be valid before it can be chosen and used by the counselor. Validity is the main requirement for the test. It refers to the extent to which the test measures what needs to be measured.

The reliability of the test is related to its consistency. A test should have a high level of reliability where the test should measure with consistency what it should measure. The third characteristic is the test need to be practical. A good test is easy to administer, scored easily, not involving high expenditure and does not take too long to complete.

It is important for school counselors to choose a psychological test that is valid, reliable and practical. They need to be careful in choosing the psychological test and should avoid using inventories and tests that have not been developed properly. The time needed to take the test or inventory, the cost, the reading level, the availability of computerized or hand scoring, and the counselor's preference are factors to take into consideration when selecting tests or inventories.

The main problem in selecting the suitable psychological tests is the lack of testing tools suitable to the culture in Malaysia since the current resources originate from the West where the culture is different from the Malaysian culture (Sidek, 2002). It is probably fair to say that tests and inventories are biased to some degree, but that most counselors attempt to use these inventories in a nondiscriminatory fashion (Brown, 2006). Careful examination of the content of tests and inventories as well as thorough knowledge of the people to whom the devices are to be given is perhaps the only way to avoid this subtle form of bias. What is important is that counselors must have the ability especially to administer, to produce the client's profile correctly as well as to choose the right psychological test to be used. The counselor must have the ability to interpret the profile obtained in a professional manner and in line with the test manual. Of the utmost importance is the client's well-being, and this must be borne in mind in deciding if the psychological test is to be used or not.

## CONCLUSION

In conclusion, testing and assessment play important roles in assisting students' career development. Testing and assessment is a scientific method or 'tool' for the school counselors. The school counselors use this 'tool' to guide and facilitate the students in career choices, making career decision, making career plans and enhance the students' career development by helping them to understand themselves and select the career goals that are in line with their talents, potential, ability, personality, interest and values. The career planning process takes a long time, especially if there is no measuring device to help to simplify the process. However, school counselors need to be trained and have expertise and knowledge of various types of tests prior to using tests to promote career development.

## REFERENCES

- Bandura, A. (1986). *Social foundations of thought and action: A social-cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Betz, N. E., & Hackett, G. (1986). Applications of self-efficacy theory to understanding career choice behavior. *Journal of Social and Clinical Psychology*, 4, 279-289.

- Brown, D. (2006). *Career information, career counseling & career development* (9th ed.). Boston, MA: Allyn & Bacon.
- Brown, D., & Brooks, L. (1991). *Career counseling techniques*. Boston, MA: Allyn & Bacon.
- Germeijs, V., & Verschueren, K. (2006). High school students' career decision-making process: Development and validation of the study of one choice task inventory. *Journal of Career Assessment, 14*(4), 449-471.
- Goldman, L. (1990). Qualitative assessment. *The Counseling Psychologist, 18*, 205-213.
- Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments* (3rd ed.). Odessa, FL: Psychological Assessment Resource.
- Nowak, G.T. (1986). *Western Michigan University Career Guidance Inventory Manual*. Kalamazoo, Michigan: Western Michigan University Testing and Evaluation Services.
- Parsons, F. (1909). *Choosing your vocation*. Boston: Houghton-Mifflin.
- Persatuan Kaunseling Malaysia. (1994). Kod Etika Kaunseling.
- Sears, S. J. (1982). A definition of career guidance terms: A National Vocational Guidance Association perspective. *Vocational Guidance Quarterly, 31*, 137-143.
- Sidek Mohd Noah. (2002). *Perkembangan kerjaya, teori dan praktis*. Fakulti Pengajian Pendidikan, Universiti Putra Malaysia, Serdang: Perkhidmatan Percetakan FPP.
- Super, D. E. (1957). *The psychology of career*. New York, NY: Harper & Row.
- Super, D. E. (1980). A life-span, life space approach to career development. *Journal of Vocational Behavior, 13*, 282-298.
- Super, D. E. (1990). A life span, life space approach to career development. In D. Brown & L. Brooks (Eds.), *Career choice and development: Applying contemporary theories to practice* (2nd ed.) (pp. 197-261). San Francisco, CA: Jossey-Bass.
- Super, D. E. (1994). A life-span, life-space perspective on convergence. In D. M. Montrose & C. J. Shinkman (Eds.), *Career development: Theory and practice*. Springfield, IL: Charles C. Thomas.
- Suradi Salim. (2001). *Bimbingan dan kaunseling*. Selangor: Utusan Publications & Distributors.
- Thorgren, J. M., & Feit, S. S. (2001). The Career-O-Gram: A postmodern career intervention. *Career Development Quarterly, 49*, 291-303.
- Trusty, J., Niles, S., & Carney, J. V. (2005). Education-career planning and middle school counselors. *Professional School Counseling, 9*(2), 136-143.
- Zunker, V. G. (2002). *Career counseling- applied concept of life planning* (6th ed.). Belmont, CA: Wadsworth.