



EXPLORING HOLLAND'S ENVIRONMENTAL MODEL: A CASE STUDY IN PELITA HARAPAN SURABAYA UNIVERSITY, INDONESIA

Firmanto Adi Nurcahyo¹, Fenny Irawati²

Department of Psychology - Pelita Harapan Surabaya University

288, Ahmad Yani St, Surabaya, Indonesia 60234

Email: 1firmanto.adi@uphsurabaya.ac.id, 2fenny.irawati@uphsurabaya.ac.id

Abstract - Holland divided interest's types into six: realistic, investigative, artistic, social, enterprising, and conventional. The dominant interest of the environment reflects the particular interest of its members. The objective of this research is to explore the environmental model of each department in Pelita Harapan Surabaya University. In this research, subjects were asked to fill the interest scale for college academic guide. Subjects were second and third-year students from each department. Descriptive statistics was used to analyse the data. Dominant interest scores for each individual were compiled based on the department. The first and second interests with the highest score then became the model of each department. Result showed two types of environmental model for each department, for instance department of psychology showed investigative and social as its environmental model. Information about the type of environment models for each department will assist the faculty member to review each course that has been given and the output produced, particularly in terms of interest.

Keywords: Holland, environmental model, interest.

I. INTRODUCTION

Suitability interest of prospective students with academic majors chosen seems to be important in decision making in continuing education in universities. Educational achievement can be realized with the support of strong interest (Anastasi, 1988). Besides, Colozzi (2003) states that interest will lead to action and determine the valuation of self and others. Thus, interest has a significant role in one's life. However, studies on the measurement of educational interest to prospective students still seem to be limited (Feldman, 2004).

Theory proposed by Holland is one of the theories that discuss about interests. This theory

is also known as personality theory for the concept of interests basically reflects the personality (Balkis & Isiker, 2005). In his theory, Holland intended to explain about vocational behavior. However, he stated that the basic assumptions of the theory can be applied in the educational situation (Holland, 1985).

This study attempts to validate interest scale that has been developed previously based on Holland's interest theory. The objective of this research is to explore the environmental model of each department in Pelita Harapan Surabaya University. Information about the environmental model of each department is expected to assist in evaluating whether the curriculum that has been



given has led to interest in accordance with the vision and mission of each department. Besides, this information could also be a consideration for the university to accept or reject prospective students who will sign in each department, in addition to the admission test.

II. THEORETICAL BACKGROUND

Holland divided interest's types into six: realistic, investigative, artistic, social, enterprising, and conventional. There are four core assumptions of Holland's theory (1985):

1. A large number of individuals can be classified as one of the types of realistic, investigative, artistic, social, enterprising, or conventional. Each type is the result of cultural interaction with the personal power that includes the factors of heredity, parents, friends, social class, and physical environment.
2. There are six models of the environment: realistic, investigative, artistic, social, enterprising, and conventional. Each model environment is dominated by the same type of interest in the environment model.
3. Individuals looking for an environment that gives them the opportunity to practice skills and abilities and to express attitudes and values.
4. Behavior is determined by the interaction between interests and environment. If we know the pair of individual interest and modeling environment, we can use knowledge about these relationships to predict some results of the matching technique.

Based on this, Holland developed an interest scale called Self Directed Search (SDS). The findings of many studies indicated that the SDS has been used widely in the practice of counseling and a variety of research (Goh, 2004). However,

although SDS is often used, it has some weaknesses. Weinrach (1979) found that the results of SDS showed that women tend to have high scores for the type of conventional interest, while men have a high score for the type of realistic interest. It is also confirmed by Zhang (2000) who said that SDS has a gender bias. Besides, the number of items in SDS (228) causes the need for a long time to complete this scale (Zhang, 2000). The weaknesses of SDS then became the reason of the developing of interest scale by Nurcahyo (2008). In his study, he developed an interest scale for college academic guide. For the purpose of his study, he also made a grouping of departments in universities into an environmental model as proposed by Holland. The Occupation Finder, the list of careers for the interpretation of SDS, is the basis of the grouping. For instance the type of psychology department's environmental model is investigative and social, while for management department is enterprising and social.

The dominant interest of the environment reflects the particular interest of its members. Realistic environment (R) will stimulate individuals to favor realistic activities such as working with equipment and machinery. This environment helps individuals to develop the technical competence. Investigative environment (I) stimulates the individual to do research activities. This environment encourages individuals to achieve success in mathematical ability and scientific competence. Artistic environment (A) stimulates individuals to perform art's activities such as playing musical instrument, drawing, singing, etc. Social environment (S) encourages the individual to perform social action. This environment helps individuals to develop an understanding for others, cooperation, and enjoyment to help others. Enterprising environment (E) stimulates individuals to engage in business activities. This environment supports entrepreneurial and leadership skills. Conventional environment (C) stimulates the activity of individuals in organizing data. This environment supports the administrative skills and group conformity.

We can assess the type of an environment by conducting census and categorization of the proportion of individual types of interest in that environment. This can be done by calculating the dominant interests of a group of students who occupy a particular department at a university. The dominant interests then become the environmental model of the department (Holland, 1985).

Holland (1985) added that the relationship between each type of interest can be illustrated by the hexagonal pattern. The shorter the distance between the types of interest, the greater the similarity between these two types of interest. For instance, realistic and investigative types is in close proximity indicates that both have similarities. This is in contrast with investigative and enterprising types who have longer distances. Both are very different. Investigative and social type has a medium-range. It indicates a similarity between the two in medium level.

Environment has a significant role in shaping a person's interest. The result of Anthony's study (1998) showed that social environment stimulates individuals to love medical career. This is confirmed by the fact that a high score on enterprising type is a poor predictor for medical career (Anthony, 1998). Umbach and Milem (2004) also found that the match between interests with educational environment would lead to satisfaction in the field of education. This is confirmed by the fact that social and educational environment are preferred by individuals who enjoy social activities, while music, theater, and language are preferred by individuals whose interest is in art. Smart (2003) conducted a study on students with investigative, artistic, social, and enterprising interests. The result showed that the match between student's interests with the appropriate environment would stimulate individual to have a better educational achievement.

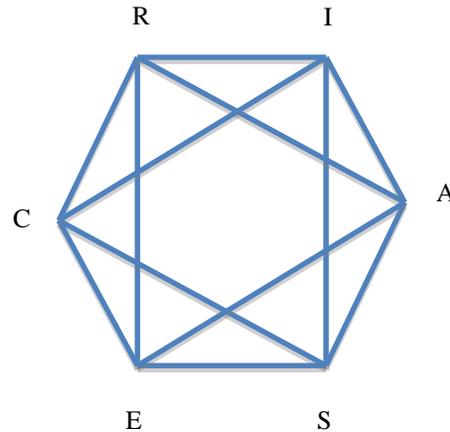


FIGURE 1
 HEXAGONAL PATTERN (HOLLAND, 1985)

III. METHOD

In this research, subjects were asked to fill the interest scale for college academic guide. This scale was developed to assess the interest of students who want to study in a university (Nurchahyo, 2008). The scale consists of 48 items. The reliability of the scale can be seen in table 1. The validity was done by professional judgment and by known group.

TABLE 1
 RELIABILITY COEFFICIENT

Variable	Reliability
Realistic	0.84
Investigative	0.85
Artistic	0.89
Social	0.85
Enterprising	0.85
Conventional	0.78

Subjects were second and third-year students from each department of the Pelita Harapan Surabaya University. This university consists of six departments, which are industrial engineering, management, law, psychology, accounting, and



information system. The number of the students for each department can be seen in table 2.

TABLE 2
 NUMBER OF STUDENTS

Department	Number of Students	
	Second Year	Third Year
Industrial Engineering	12	21
Management	38	46
Law	15	14
Psychology	30	25
Accounting	23	22
Information System	19	20

Descriptive statistics was used to analyze the data. Dominant interest scores for each individual were compiled based on the department. The dominant interest of each individual is possible more than one. Therefore, two of the highest interest scores are taken as the interests of each subject. Then, each two interests of each subject in one department are compiled into a single data. The data is then translated into percentage form. The first and second interests with the highest percentage then became the model of each department.

IV. RESULT

The percentage of each environmental model can be seen in table 3. From that table we can see that each department consists of all of the environmental type. However, the percentage of each type shows that the percentages are varied. For instance in the department of industrial engineering, the highest percentage is investigative type, with 35%. On the contrary, social type only has 5%, the smallest percentage of all six.

TABLE 3
 PERCENTAGE OF ENVIRONMENTAL MODEL'S TYPE

Department	% Environmental Model					
	R	I	A	S	E	C
Industrial Engineering	18	35	26	5	11	6
Management	10	20	15	15	30	10
Law	7	33	21	14	9	17
Psychology	7	24	21	23	14	12
Accounting	9	16	16	19	23	18
Information System	24	33	18	9	8	8

Two types of environmental model with the highest percentages then became the type of the environmental model for each department. In the department of psychology, investigative and social have the highest percentage for instance. Thus, investigative and social then become the type of department of psychology's environmental model. Table 4 shows the two types of environmental models for each department. The empirical column shows two environmental model's type for each department derived from the data. On the contrary, the theoretical column shows two environmental model's type for each department derived from Holland's theory that is related with some careers (Nurcahyo, 2008). From the table, we can compare the empirical environmental model with the theoretical one. It will be discussed in the discussion section later.

TABLE 4
 ENVIRONMENTAL MODEL'S TYPE

Department	Empirical		Theoretical	
	1	2	1	2
Industrial Engineering	I	A	R	E
Management	E	I	E	S
Law	I	A	I	S
Psychology	I	S	I	S
Accounting	E	S	E	I
Information System	I	R	R	I



REFERENCES

V. DISCUSSION

Result showed two types of environmental model for each department. Some of the empirical findings are fit with the theoretical one. For example for the department of psychology, two of the environmental model's types are fit with the theoretical model's types, which are investigative and social. This also happens in the department of information system, which has investigative and realistic type. This shows that these departments have a suitable type of environmental model with Holland's theory.

For some departments, one of the types of the empirical finding is fit with the theoretical type, whether the others are not. This happens in the department of management, law, and accounting. This shows that these departments have the type of environmental model that is still quite in accordance with Holland's theory. For instance, in the department of management, the first dominant type for both empirical and theoretical type is enterprising. However, the second dominant type in the empirical type is investigative, while in the theoretical is social.

Department of industrial engineering showed investigative and artistic as its environmental model. This is quite different from the theoretical model's type that is realistic and enterprising. This may be related to the goal of this department to be a school of creative industry. It may be that the syllabus and the lessons given in this department stimulate student interest in investigative and artistic area.

Information about the type of environment models for each department will assist the faculty member of Pelita Harapan Surabaya University to review each course that has been given to the students. This information can also be used as a consideration in recruiting new students in addition of the admission test. The match between the types of interest with the environmental model will support the students in learning process to get a good academic achievement.

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