IDENTIFICATION OF BARRIERS TO CREATIVE THOUGHT AND
INNOVATIVE ACTION AMONG NON-SCIENCE ACADEMIC STAFF IN
UNIVERSITI MALAYSIA SABAH

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THIS DISSERTATION IS SUBMITTED IN PARTIAL FULFILLMENT OF THE
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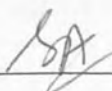
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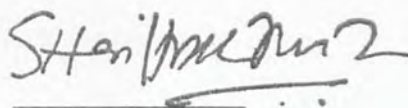
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ABSTRACT

The purpose of this study is to identify the barriers to creative thought and innovative action among non-science academic staff in Universiti Malaysia Sabah (UMS). Level of barriers to creative thought and innovative action among non-science academic staff has been measured by using instrument given from the questionnaire of *Inventory of barriers to creative thought and innovative action*. There are 73 respondents found in the study. The reliability value of the questionnaire is 0.871 which is considered as a good measure. Score obtained from the scale has been used to determine whether there is significant difference of mean score between demographic factors such as gender, and educational level towards barriers to creative thought and innovative action. The score from the scale was also used to determine the relationship between demographic factors and barriers to creative thought and innovative action. The statistical tests that will be used in this study are independent t-test, two way ANOVA test and Pearson correlation test. As a result, most of the non-science academic staff are found to have a higher score in barrier related to task achievement. There is significant difference between gender towards certain barriers to creative thought and innovative action however there is no significant difference found between demographic factor such as educational level towards barriers to creative thought and innovative action. There is a weak relationship found between demographic factors and barriers to creative thought and innovative action.

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MENGENAL PASTI HALANGAN BAGI PEMIKIRAN KREATIF DAN TINDAKAN INOVATIF DI KALANGAN PENSYARAH SASTERA DI UNIVERSITI MALAYSIA SABAH (UMS)

ABSTRAK

Kajian ini bertujuan untuk mengenal pasti halangan bagi pemikiran kreatif dan tindakan inovatif di kalangan pensyarah sastera di Universiti Malaysia Sabah (UMS). Tahap halangan bagi pemikiran kreatif and tindakan inovatif telah dikaji dengan menggunakan instrumen yang telah diberikan dalam soal selidik *Inventory of barriers to creative thought and innovative action.* Terdapat 73 responden dalam kajian ini. Skor yang dicapai akan digunakan untuk mengkaji perbezaan min skor antara faktor demografik seperti jantina, dan taraf pendidikan terhadap halangan berfikiran secara kreatif dan bertindak secara inovatif. Skor ini juga akan digunakan untuk mengkaji hubungan antara faktor demografik terhadap halangan bagi pemikiran kreatif dan tindakan inovatif. Kajian ini telah mencapai nilai reliabiliti sebanyak 0.871. Ujian t tak bersandaran, ujian dua faktor ANOVA dan ujian korelasi telah digunakan dalam kajian ini. Keputusannya menunjukkan terdapat perbezaan signifikan min skor antara jantina terhadap sesetengah halangan bagi pemikiran kreatif dan tindakan inovatif. Tiada perbezaan signifikan min skor antara faktor taraf pendidikan terhadap halangan pemikiran kreatif dan tindakan inovatif. Dalam kajian ini didapati bahawa terdapat hubungan yang lemah antara faktor demografik terhadap halangan pemikiran kreatif dan tindakan inovatif.

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LIST OF SYMBOLS

χ^2	chi-square distribution
df	degree of freedom
t	t distribution
μ	mean
τ_i	factor A at the ith row
β_j	factor B at the jth column
$(\tau\beta)_{ij}$	interaction of factor A and B
ε_{ijk}	random error
H_0	null hypothesis
H_a	alternate hypothesis
ρ	rho
Cov (X,Y)	covariance for X and Y
Var X	variance X
Var Y	variance Y
%	percent
Σ	summation
=	equal
$\neq$	not equal

LIST OF SHORT FORMS

SSA	sum of square for factor A
SSB	sum of square for factor B
SS(A*B)	sum of square for interaction factor A and B
SST	total sum of square
SSE	sum of square for error
MSA	mean of sum of square for factor A
MSB	mean of sum of square for factor B
MS(A*B)	mean of sum of square for interaction of factor A and B
MSE	mean of sum of square for error
UMS	Universiti Malaysia Sabah
KMO	Kaiser-Meyer-Olkin test

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CHAPTER 1

INTRODUCTION

1.1   Introduction

According to Muhammad Abdul Jawwad (2004), creativity is defined as generating something new and never been done before towards an existing matter. Creativity is also defined as a capability in doing things that are known to be novel (Sternberg and Lubart,1996). Besides that, creativity can also be defined as one of the contribution towards the society by generating products which are known to be novel and useful (Ainon and Abullah, 1995). There are a lot of definitions given on the term creativity, however most of the definitions are found almost the same by emphasizing on ability to generate unique ideas.

Creative thought is a mental process of contributing something which consists of uniqueness. According to Rathus (2000), those who are creative are able to find solutions towards problems that had never been attempted before. Creative people are found to be those who like to take opportunities, standing on unpopular views and are always found to be positive in achieving something that seems to be impossible.

Innovation is a Latin word meaning "modernization" (Ainon and Abdullah, 1995). The word mentioned is considered a new discovery in a process or a procedure. An innovative person is able to take action on thoughts that had been generated. According to Ainon and Abdullah (1995), innovation can be divided into two types which are incremental innovation and radical innovation. Incremental innovation refers to those who are trying to modify products in order to achieve a better performance at a lower cost while radical innovation is the ability to do things with methods that has never been used before. Innovation describes an action that is taken by an individual to a certain matter. According to Muhammad Abdul Jawwad (2004), innovation is an activity done with the capability in thinking skills to produce something new which brings benefit to the social life.

Creative thought and innovation action is known to be interrelated. Creative thought is something in an individual's mind which is unique and new while innovative action is acting with new ideas in the society. Both of these are important in order to get things to work. There will be no innovation if there is no process to bring in the new idea into society (Aleinikov, 2002).

1.2   Background of study

Creative thought and innovative action is considered important nowadays in the society. Creative thought and innovative action are needed in different fields to achieve something new which brings benefit to the society. Business is one of the fields which need creative

thought and innovative action. According to Brich and Clegg (1999), creativity is needed in all the businesses. An individual must be able to take action with new concepts to gain a better profit in the business field. Creativite thoughts and innovative action is also known to be important among the academic staff. Academic staff refers to those who are involved in educating field. The father of creativity, Dr. E. Paul Torrance, is involved in the study of creative education. Dr. E. Paul Torrance claimed that the teacher should teach in own style to express the ability of creativity in educating (Fryer, 2006). There is a lot of academic staff today who are not able to express generated idea creatively. There are a lot of people who has the wrong understanding of creativity. These people have wrong perceptions that all ideas contributed must be totally new to be known as creative ideas. Actually, ideas can be developed by combining some of the elements together to create something new. However, some people are fearful of taking risks on trying something new because of unwillingness to face failure. This will be a waste if no practical action is taken to generate the good ideas into finished concept.

1.3   Rational of study

Research regarding the subject of creativity is something common nowadays especially in foreign countries. There has been much research made to study how creative a person can be by measuring the person's creativity. Different people are believed to have different scores in the level of creativity. Most of the researchers used Torrance Test of Creativity Thinking (TTCT) to test on levels of creativity .Torrance Test of Creative Thinking (TTCT) discovered by the father of creativity, Dr. E. Paul Torrance, as the measurement

in creativity level in the researchers' study. Most of the research is found in measuring creativity level but there is less research found towards the subject of barriers to creative thought and innovative action. Hence the purpose of this study is to investigate on the barriers to creative thought and innovative action towards academic staff. This study, will not measure an individual's creativity level but will identify the factors which block an individual to perform creatively and innovatively in thoughts and action. The result of this study will help to determine what kind of action should be taken to overcome the blocking factor towards the subject. If all the academic staff were able to think creatively and act innovatively, the standard of education in a country can be improved. Creative thought and innovative action do not come hand in hand all the time. An individual might not be able to act innovatively even though that person is highly creative. Hence, this research will help to solve the problem by finding the right solution to overcome the factors found which block an individual to think creatively and act innovatively.

1.4   Objective of study

The objectives in this study are

i.   To measure the level of barriers to creative thought and innovative action among the non-science academic staff.

ii.   To identify the barriers to creative thoughts and innovative action among the non-science academic staff.

iii.   To determine whether there are significant difference of mean score between demographic factor towards barriers to creative thought and innovative action.

iv.   To determine the relationship between demographic factors and the barriers to creative thought and innovative action.

1.5   Scope of study

The scope of this research is the non-science academic staff in Universiti Malaysia Sabah (UMS) of Kota Kinabalu campus only. There are a total of fifteen schools and units in Universiti Malaysia Sabah (UMS). Schools considered in this study are as below:

i.   School of Business and Economics (SPE)

ii.   School of Psychology and Social Work (SPKS)

iii.   School of Education and Social Development (SPPS)

iv.   School of Art Studies (SPS)

v.   School of Science Social (SSS)

vi.   Centre for the Promotion of Knowledge and Language Learning (PPIB)

CHAPTER 2

LITERATURE REVIEW

2.1   Introduction

Nowadays creative thought and innovative action play an important role in the society. Creative thought and innovative action are needed in every field. Creative skill can be used in technology, music, painting, business and many more. Arts, architecture and science contributed to society due to the presence of creativity (Fritz, 1994). Hence, creative thought plays an important role in the society. Other than that, innovative action plays an equally important role in a society. The society has become more and more competitive nowadays. People need to compete especially in business field to survive in the markets. Innovative action has to be taken to open up new market and to increase profits in a business organization.

According to Sternberg (2006), a creative person normally stands on opposite view to ideas generated by others. Regarding to Mean (2006), creative people have the

characteristic of being able to work alone, without being bothered about what how others would comment. Creative peoples are full of self-confidence and these people are eager to create new concepts and new products in the society. Humor which lead to awesome creations are also found in creative people. Besides that, those who are creative are able to adapt quickly to changes. These people are free to think, generate and to create concepts or products in any situations.

Everyone scores differently in creativity. Some might be highly creative but some might not be. Hence, different decisions are found by creative distributors regarding expressions in creativity. An innovative person refers to those who are willing and daring enough to take risk and to experiment. According to Dundon (2002), innovation plays a role of taking action towards newly discovered idea.

2.2   Measurement of creativity

There has been much research done on measuring one's creativity level. One of the methods widely used to test on creativity is called the Torrance Test of Creative Thinking (TTCT) which was developed by E. Paul Torrance in 1996 (Kim, 2006b). Other than testing on creativity, the Torrance Test of Creative Thinking (TTCT) can also be used as a tool of enrichment (Hébert *et al.*, 2002).

According to Lee and Seo (2006), there were four subscales in the measurement of creativity found by E. Paul Torrance. The first subscale is originality. Originality shows

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