

RELATIONSHIP BETWEEN CREATIVITY AND ENTREPRENEURIAL QUALITIES AMONG FORM FOUR MALAYSIAN STUDENTS

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Entrepreneurial qualities or tendencies have long been associated with creativity and other related personality characteristics such as risk-taking, initiative, environmental sensitivity and self-confidence (Kao, 1989). It has also been proposed that it is vital to nurture these entrepreneurial tendencies in school and also to help students identify their creative potential to further enhancing these tendencies. In line with the Malaysian government's ongoing program to enhance entrepreneurial skills among students through various activities and curriculum interventions in secondary school recently, it has become highly crucial to investigate whether there is a relationship between creative personality characteristics and entrepreneurial tendencies. There is also a need to design a reliable and valid measure of entrepreneurial tendency to help identify students who have this potential which educators and curriculum planners can use to further develop this potential.

Objectives

This study is aimed at developing a reliable and valid measure of entrepreneurial tendency for the identification of students with potential. It is also aimed at explicating the nature of the relationship between creative personality characteristics and entrepreneurial tendency

Research Questions

In line with the above objectives of this study, several pertinent research questions were formulated:

1. What is the nature of entrepreneurial tendency of Malaysian Lower Secondary School students?
2. What is the nature of the creative personality characteristics of Malaysian Lower Secondary School students?
3. What is the relationship between entrepreneurial tendency and creative personality characteristics of these students?

Methodology

This study employed the survey method to obtain the relevant data to answer the research questions. To obtain a representative sample, intact classes were selected randomly from seven schools in three states in Peninsula Malaysia: one urban and one rural school from the northern state of Penang and the eastern state of Pahang and one rural and two urban schools in the central state of Selangor. In each school, two Form Four classes taking the entrepreneurship subject were randomly selected and the battery of instruments was administered. In all, responses from about 210 students were received but after discarding the incomplete responses, only 174 complete responses were finally used in this study. In this sample, there were 88 male and 86 female students. The two instruments were administered in the following order:

1. The Entrepreneurial Tendency Inventory (ETI) which comprised 25 4-point Likert scale items took about 10 minutes to complete. It was designed by the researcher based on a comprehensive literature review of characteristics of individuals with entrepreneurial tendencies.

2. Khatena-Torrance Creative Perception Inventory (KTCPI) gives measures of two subscales: What Kind of Person Are You? (WKOPAY) and Something About Myself (SAM). Both subscales take about 25 minutes to complete. The reliabilities and validities of both instruments have been well established (Khatena & Torrance, 1998; Khatena & Morse, 1991).

WKOPAY comprises 50 forced-choice items and this mode yielded an interscorer reliability of about .99 at $p < .01$ (Khatena & Torrance, 1998). The internal consistency of the test determined by the split-half method gave a Spearman-Brown prophecy formula, r , of .98. The test-retest reliability was found to range from .71 to .97 ($p < .01$). Palaniappan (1993) obtained a test-retest reliability of .58 ($p < .01$) in a pilot study conducted in Malaysia. A variety of validity coefficients ranging from .26 to .75 and averaging around .53 have been reported (Khatena & Torrance, 1998). For example, the criterion-related validity using two tests of verbal originality as criteria ranged from .26 to .75 ($p < .05$ to $p < .01$). SAM also comprises 50 forced-choice items and has a high interscorer reliability. A Spearman-Brown prophecy formula, r , of .99 ($p < .01$) has been reported (Khatena, 1971b). A Malaysian study using Form Four (US Grade 10) students reported a test-retest reliability of a bilingual version of SAM of .75 ($p < .01$) (Palaniappan, 1993). The internal consistency was determined by the split-half and equivalence methods. In a study involving adolescent groups, the odd and even items were correlated and corrected by the Spearman-Brown prophecy formula. An r of .94 was obtained. Test-retest reliability coefficient computed was .98 (after a one day interval).

Findings

A pilot study was conducted to determine the reliability and the validity of this inventory. Factor analyses of the scores obtained indicated that these 25 items loaded on eight factors (see Table 6). Based on the items in the factors identified, the factors were named as Self-Employed (SE), Business Confidence (BC), Business Intention (BI), Business Anxiety (BA), People Dependent (PD), Forced Decision (FD), Low Self-confidence (LS) and Contingent Decision (CD). Subsequent analyses were carried out based on these factors. The reliabilities ascertained for ETI were internal reliabilities of the factors mentioned above. These Cronbach alphas ranged from .23 (for Low Self-confidence, LS) to .80 (Self-Employed, SE). The mean scores of the Overall Entrepreneurial Tendency is 57.60 ($SD = 8.91$) while the mean scores of its standard scores ranged from 4.53 (Continent Decision, CD) to 11.47 (Business Confidence). The mean score obtained for Creative Personality Component measure, SAM is 29.28 ($SD = 8.91$) while that of WKOPAY is 23.75 ($SD = 5.01$). Entrepreneurial Tendency is significantly and positively related to SAM ($r = .27$). Students who have high entrepreneurial tendencies appear to be those who perceive themselves as creative based on their past creative performances.

Entrepreneurial tendency is also significantly and positively correlated to Environmental Sensitivity (ES) ($r = .20$), Self-strength (SS) ($r = .21$), Intellectuality (IT) ($r = .16$) and Artistry ($r = .17$). Entrepreneurial tendencies are not related to perception of oneself as having creative personality characteristics. Business Intention is also negatively but significantly related to Inquisitiveness (I). Business Anxiety is negatively but significantly related to Self-confidence ($r = -.21$). Students who are high on People Dependent also tend to be high on Acceptance of Authority, a non-creative orientation ($r = .15$) and Awareness of Others ($r = .16$). Forced Decision, another factor identified in the factor analyses of Entrepreneurial tendency scores is significantly but negatively related to Awareness of Others (AO).

Discussion and Conclusion

Students who have high entrepreneurial tendencies appear to be those who perceive themselves as creative based on their past creative performances and tend to be open to ideas of others and able to see new opportunities (Environmental Sensitivity). They are risk takers, confident, resourceful (Self-strength), like to work alone, like challenging tasks, think for themselves (Intellectuality) and like to create new objects and processes (Artistry). These findings also indicate the high criterion-

related validity of Entrepreneurial Tendency Inventory (ETI). Students who are confident of succeeding in business tend to use their creativity and freedom. They also tend to perceive themselves as creative based on previous achievements (SAM), are quick to notice business opportunities (Environmental Sensitivity), have high level of initiative and drive (Initiative), are self-confident (Self-strength) and prefer challenging tasks (Intellectuality).

Those students who have high level of ambition to go into business also have high level of self-confidence. Students who fear going into business tend to have low self-confidence and fear taking risks. In other words, these students who are risk-takers and have high self-confidence tend to have high entrepreneurial inclinations. Students who attach great importance to what their close relatives think about their business intentions and so be motivated by them to go into business tend to be creative based on their past creative achievements (SAM) and are also sensitive to the existence of business opportunities around them (Environmental Sensitivity). Students who feel that they have no choice but to go into business have a high level of initiative. Perhaps when students feel that business is the only avenue open to them, they tend to focus on taking all steps necessary to make it work. Students who are risk-averse and have low self-confidence do not perceive themselves as creative and are not sensitive to business opportunities open to them and also shy away from challenging tasks.

References

- Kao, J. J. (1989). *Entrepreneurship, creativity & organization: Text, cases, & readings*. Englewood Cliffs, NJ: Prentice Hall.
- Khatena, J., & Torrance, E. P. (1998). *Manual for Khatena-Torrance Creative Perception Inventory*. Chicago: Stoelting.
- Khatena, J., & Morse, D. T. (1991). *Khatena-Morse Multitalent Perception Inventory: Norms-technical Manual*. Bensenville, IL: Scholastic Testing Service.
- Khatena, J. (1971b). *Something About Myself: Norms-technical Manual*. Unpublished Manuscript, Marshall University.
- Palaniappan, A. K. (1993). Preliminary study of the bilingual version of Khatena-Torrance Creative Perception Inventory. *Perceptual and Motor Skills*, 77, 948-950.