

Abstract

The purpose of this study is to investigate the inter-relationship amongst Learning Processes, Academic Achievement and Study Streams in a Macao secondary school.

The "Learning Process Questionnaire" designed by John B. Biggs is employed as this research instrument. It was used to investigate the differences in Learning Motive and Learning Strategies between 24 Arts students and 34 Science students in a Macao secondary boy school. Reliabilities of different measuring scales show a moderate internal consistency. The acquired data was analyzed by using SPSS 9.0 software with various statistical methods of frequency distribution, Pearson Product-moment Correlation Coefficient and t-test to examine the relationships between various variables. Gathered research findings, summed up conclusions and presented related suggestions to be the references for Macao Education Department, principals and school administrators.

The following is a summary of the main findings:

A) The study do indicate that the LPQ are moderately reliable and the underlying factors reflect that students with an achieving bias chose achieving-related strategies, deep bias chose deep-related strategies and surface bias, surface-related strategies.

B) Relationship between Study Streams and Learning Process

Arts students tend to be more surface-oriented and are more surface motivated whilst Science students tend to be more deep-oriented and achieving-oriented and are more deep and achieving motivated. Science students scored significant higher than Arts students on Achieving Approach. It is also found that Sciences students with high achievement motivation tend to adopt whatever approach they feel with maximize their chances of getting high marks, whether surface, deep and achieving strategy. Surface demand has also been attributed as a contributing factor in surface approach to learning in the Science students.

C) Relationship between Study Streams and Academic Achievement

Science students exhibited significant higher Chinese, English and Mathematics marks than Arts students.

D) Relationship between Learning Process and Academic Achievement

Academic Achievement had a negative correlation with Surface Approach scale but a significant positive correlation with Deep Approach scales. It is predictable that students who adopt deep approaches to learning would be more successful academically than those who adopt a surface approach.