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A KINETIC STRUCTURE ANALYSIS OF SELECTED TEXTBOOKS IN COLLEGE CHEMISTRY

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ABSTRACT

The study attempted to probe into the range of applicability and validity of the Kinetic Structure Theory in the assessment chemistry textbooks. The focus of the analysis is on the books' degree of kinetic structure and comprehensibility. The analytical scheme was based on the theory's principles and guidelines originally proposed by O. Roger Anderson. The actual process was mainly carried out via the Kinetic Structure Analyzer Program (KSA-P), a computer software specifically developed for this study.

Subjected to Kinetic Structure Analysis (KSA) were four general college chemistry textbooks adopted by a good number of Manila universities and colleges for their science and engineering students. The over-all degree of kinetic structure and comprehensibility of the texts were based on the commonality coefficient, a fundamental estimate inherent to KSA. The over-all KSA results translated into ordinal measures significantly agreed with a collated Chemistry Experts' Opinions (CEO) as regards to the texts' respective degree of comprehensibility. Other KSA attributes such as the progression density coefficient and the kinetogram plots



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were also employed and considered in this study in an attempt to illustrate KSA's so-called touch of "molecularity".

This study showed that the KSA is a valid method for textbook analysis. It is therefore recommended as a possible scheme in the selection and evaluation of other science textbooks and curriculum materials.

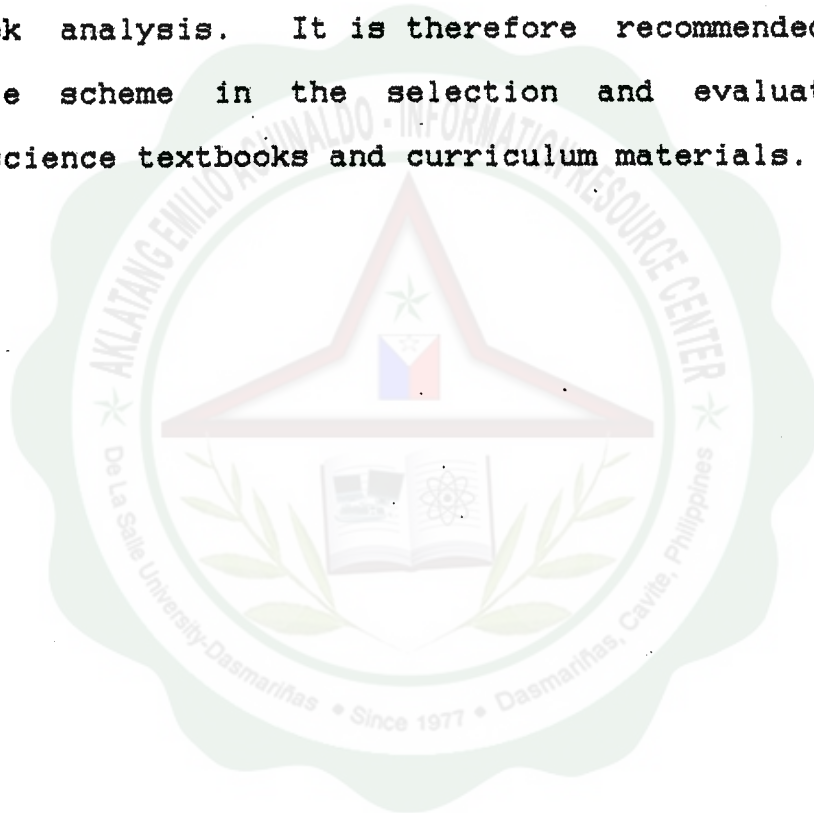


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