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Tsai, Chin-Chung and Yu-Ju Chou. **The Role of “Core” and “Anchored” Concepts in Knowledge Recall: A Study of Knowledge Organization of Learning Thermal Physics.** *Knowledge Organization*, 32(4). 143-158. 40 refs.

ABSTRACT: This study is an investigation of whether learners’ knowledge is organized around a “core” concept within a knowledge domain, which is strongly linked to other secondary concepts, called “anchored concepts.” In other words, the “core” concept and “anchored” concept are mutually supportive of one another. These two concepts can be linked with other concepts to produce more extended and robust knowledge structures in memory. This study used a flow map method to identify learner’s “core” and “anchored” concepts derived from the treat-

ment instruction about thermal physics. The results showed that with the assistance of “core” concept, profitably mediated by the “anchored” concept, learners could recall more extended knowledge, with greater richness and with higher connection than in the absence of this organizing information (Experiment 1). However, the difference between the provision of a group core concept and an individual core concept did not reach any significance level in the recall task two-month later (Experiment 2). When the recall task was carried out six months later, the group “anchored” concept showed the essential assistance to the recall of knowledge (Experiment 3). This study has provided potential insights not only about the functional mechanisms of learners’ knowledge construction but also for classification research.

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Scope

The more scientific data is generated in the impetuous present times, the more ordering energy needs to be expended to control these data in a retrievable fashion. With the abundance of knowledge now available the questions of new solutions to the ordering problem and thus of improved classification systems, methods and procedures have acquired unforeseen significance. For many years now they have been the focus of interest of information scientists the world over.

Until recently, the special literature relevant to classification was published in piecemeal fashion, scattered over the numerous technical journals serving the experts of the various fields such as

philosophy and science of science
science policy and science organization
mathematics, statistics and computer science
library and information science
archivistics and museology
journalism and communication science
industrial products and commodity science
terminology, lexicography and linguistics

Beginning in 1974, KNOWLEDGE ORGANIZATION (formerly INTERNATIONAL CLASSIFICATION) has been serving as a common platform for the discussion of both theoretical background questions and practical application problems in many areas of concern. In each issue experts from many countries comment on questions of an adequate structuring and construction of ordering systems and on the problems of their use in opening the information contents of new literature, of data collections and survey, of tabular works and of other objects of scientific interest. Their contributions have been concerned with

- (1) clarifying the theoretical foundations (general ordering theory/science, theoretical bases of classification, data analysis and reduction)
- (2) describing practical operations connected with indexing/classification, as well as applications of classification systems and thesauri, manual and machine indexing
- (3) tracing the history of classification knowledge and methodology
- (4) discussing questions of education and training in classification
- (5) concerning themselves with the problems of terminology in general and with respect to special fields.

Aims

Thus, KNOWLEDGE ORGANIZATION is a forum for all those interested in the organization of knowledge on a universal or a domain-specific scale, using concept-analytical or concept-synthetical approaches, as well as quantitative and qualitative methodologies. KNOWLEDGE ORGANIZATION also addresses the intellectual and automatic compilation and use of classification systems and thesauri in all fields of knowledge, with special attention being given to the problems of terminology.

KNOWLEDGE ORGANIZATION publishes original articles, reports on conferences and similar communications, as well as book reviews, letters to the editor, and an extensive annotated bibliography of recent classification and indexing literature.

KNOWLEDGE ORGANIZATION should therefore be available at every university and research library of every country, at every information center, at colleges and schools of library and information science, in the hands of everybody interested in the fields mentioned above and thus also at every office for updating information on any topic related to the problems of order in our information-flooded times.

KNOWLEDGE ORGANIZATION was founded in 1973 by an international group of scholars with a consulting board of editors representing the world's regions, the special classification fields, and the subject areas involved. From 1974-1980 it was published by K.G. Saur Verlag, München. Back issues of 1978-1992 are available from ERGON-Verlag, too.

As of 1989, KNOWLEDGE ORGANIZATION has become the official organ of the INTERNATIONAL SOCIETY FOR KNOWLEDGE ORGANIZATION (ISKO) and is included for every ISKO-member, personal or institutional in the membership fee (US \$ 55/US \$ 110).

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