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THE IMPACT OF CONCEPT MAPPING AS A LEARNING TOOL ON STUDENT
PERCEPTIONS OF AND EXPERIENCES WITH INTRODUCTORY STATISTICS
(245 pp.)

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The ability to understand and utilize statistics concepts and techniques is

paramount in today's data-rich society. However, research suggests widespread

difficulties and misconceptions as well as prevalent affective challenges, such as anxiety

and lack of confidence, in the learning of basic statistics concepts at all levels of

education. The purpose of this study was to document the experience of incorporating

concept mapping as a learning tool to augment the learning of students in an

undergraduate introductory statistics course in an adult learning setting. The study

explored students' experiences with concept mapping as a learning tool and examined the

impact of this use of concept mapping on student perception by addressing the following

questions: (a) How do students experience the learning of introductory statistical

concepts through the use of concept mapping? (b) How do students in an introductory

statistics course perceive the impact of their use of concept mapping on their ability to

relate and apply important statistical concepts? Case study methodology was followed

and data included observations, interviews, documents, questionnaires, and reflective

journals. These data were analyzed in order to produce a detailed narrative describing the

participants' experiences and perceptions regarding the impact of concept mapping on the

learning of basic statistics concepts and to illuminate meaningful patterns from the participants' perspectives and experiences. Findings suggest students have mixed experiences with the use of concept mapping, and they felt their ability to integrate statistical concepts was enhanced through concept map use, but not their ability to apply concepts for problem-solving.