Using the Learning Tactics Inventory to Assess Impact of Three Levels of Decision Support on Learning Behavior in a Problem-Solving Environment

Kenneth E. Bandy
Dept. of Business Administration & Management Information Systems
Texas A&M University – Commerce
Commerce, Texas 75429
Ken_Bandy@tamu-commerce.edu

Keywords: Group Support System, Computer Supported Collaborative Word, Decision Support System, Cognitive Processing, Decision Making, Learning Tactics Inventory

Category: Refereed Track Research Findings

Building on a previous study that applied Kolb's Learning Styles Instrument (LSI) to a computer-based group problem-solving scenario, this study employs Maxine Dalton's Learning Tactics Inventory (LTI) to measure behavioral change (improved thinking & learning strategies) in the same problem context. The increasingly pervasive use of computer networks to make business decisions in asynchronous contexts warrants a consideration of the central question: Does level of computer-based decision-making support impact cognitive processing? Firms depending upon computer-mediated communication may find investment in decision structuring technologies (i.e., GSS) a solid investment, if level of thinking among decision-makers is improved. Results of the previous study indicate that structured decision making via a group support system facilitated more complex communication patterns than did simple chat based systems. Also in the previous study, posttest measures indicated significant changes on some but not all dimensions of the LSI, suggesting GSS may promote deeper cognitive processing among participants. The current study explores use of Dalton's LTI, seeking to assess whether various levels of computer-based decision support change tactical learning behaviors among participants engaged in an asynchronous, computer mediated problem-solving environment. Results are mixed, indicating the level of computer-based, decision-making support did facilitate changes in some but not all participant learning tactics. Implications of results are discussed. Findings of LSI and LTI studies provide direction for future research.