

### Abstract:

Concept map (CM) is an easy to learn tool and can be effectively used to represent knowledge. Many disciplines have adopted CMs as teaching and learning tools to improve learning effectiveness, even though its application in IS curriculum is sparse. Meaningful learning happens when one iteratively integrates new concepts and propositions into her existing cognitive structure. It is the process of how one acquires knowledge in certain domains such as Information Systems (IS). As important as meaningful learning is in IS education, there is a void of method to assess it effectively. This study reports a series of experiments of adopting CMs as a tool to evaluate students' learning, especially meaningful learning in an IS curriculum. Based on theoretical foundation of CMs and prior related empirical work, we designed assignments that require students to complete CMs in three participating courses. We also designed and implemented a tool to help analyzing the CMs with certain level of automation. The completed CMs are collected and analyzed to answer our research questions. We believe the results demonstrate the utility of CMs in IS education as an effective tool to understand and assess students' learning. Our work also experimented with various methods to use CMs and the findings provide valuable insights as to how CM-based teaching tools can be incorporated into the curricula seamlessly.

### Citation:

Wei, W., & Yue. K., Using Concept Maps to Assess Students' Meaningful Learning in IS Curriculum. Proceedings of the EDSIG Conference, Las Vegas, Nevada, Volume 2, n4016, November 2016.