

Synopsis: Learning analytics measures and analyzes data to predict and increase student achievement through instruction.

Evaluation topic: What is learning analytics? Learning analytics is an information technological tool which uses statistical analysis of data to discover information, study engagement, predict and advise student performance, revise curricula, provide real time feedback, spot potential issues, foster informed decisions, and better train staff. Specifically Learning analytics measures and analyzes formative data to predict student achievement and increase student achievement through instruction. Technology provides valid and reliable learning analytic measures to redirect differentiated instruction in a timely manner. Formative data provided to teachers of their student's individualized strengths and weaknesses is effectual when used for individualized instruction. Specific training to support data driven pedagogy is necessary by building administration and teacher instructors. How learning analytics can be used to support increased academic success in K-12 public schools will be discussed.

Project Background: Curricular knowledge and performance measuring tools are designed to provide collaborative and credible evidence for measurable achievement and reflection by disseminating knowledge of the learner and their capacity to improve student achievement.

Implications for audience: Data collection in public education is essential in our competitive market for federal funding, real estate gains and student competition in a global society. School districts currently use Information Management Systems that store tremendous amounts of information on their students. Incorporating learning analytics into the management system would facilitate predictive models being applied to generating additional reports. These reports could include recognizing patterns of loss instruction and individualized models of strengths and weakness. Learning analytics offers appropriate and thorough analysis methods to district personnel to gain a competitive data driven edge. Knowing the limitations and timeliness of state data, reports, disaggregated feedback, and student variables/demographics causing changes in academic performance, it is vital to use learning analytics for continuous formative evaluation of learning.

Biography: AJ Hepworth is a public educator in secondary education in Mineola UFSD, New York. He has worked in middle and high schools as a science educator and building administrator for 15 years. He is currently an Instructional Leader in high school and teaches Earth Science and Introduction to Research. Additionally, he is a doctoral candidate at Dowling College in Educational Leadership with a focus on learning analytics using technology and data driven instruction.

