

A Tool for Automated Formative Feedback on Aspects of Written Argumentation

Presenters:

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Abstract

Learning argumentation through writing requires students to use complex cognitive processes, such as: *advancing claims, hedging, asserting, paraphrasing and taking stances, etc* and produce numerous drafts before submitting their final essays for assessment by their instructors. Teaching argumentation requires instructors to invest substantial amount of efforts and time to provide feedback on numerous drafts produced by students, and to design and deploy pedagogical intervention to cater to the learning needs of their students. Education researchers and analysts need large data sets (written corpus) to examine aspects of argumentation, using automated methods and provide actionable pedagogical insight and evidence to support and inform the decision-making process of instructors, program designers and administrators. Cognizant of these needs at our institution (Faculty of Science at UBC), we designed and developed a learning analytics technology (software) that caters to the educational needs described above. In this presentation, we offer to: (a) provide an overview of the tool (software) that we developed and its different functionalities and usages and (b) share our analytics techniques for automatically analyzing aspects of written argumentation in the context of (science) education.