

Special Issue

Learning Analytics to Aid Formative Assessment—a Focus on the Role of Underlying Mathematical Models

Message from the Guest Editor

This Special Issue welcomes reports on studies that combine assessment for learning with learning analytics. Assessment is an integral part of teaching and learning at any age and in any context. Learning analytics has been used to predict student success in educational systems and to assess various parts of learning processes after they have occurred. However, there is potential for using learning analytics for formative purposes—to provide learners with information, which they can use to improve. Such an endeavor requires valid and robust underlying mathematical models. Using such models, it should be possible to tailor feedback to learners. For example, humans may use such models to become aware of regularities or patterns in learner behavior, which would not otherwise be apparent. Another example is the design of automated systems which use mathematical models to provide appropriate feedback to learners. The feedback provided might be visual, auditive, haptic, or any combination of human sensing. As such, this Special Issue welcomes any study which uses some kind of mathematical model to directly aid the provision of formative assessment to learners.

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Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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