Why are Learning Analytics Important to School Leaders and Educators?

Learning analytics has the potential to transform U.S. education by helping educators personalize instruction to make education more agentic while improving student achievement.

Today, there is no dearth of data. We receive it from almost every imaginable source. And the utilization of student data to help fuel decisions regarding student growth, remediation, instruction, and assessment is nothing new. Yet, meticulously collecting and analyzing data can be a labor-intensive slog with no guaranteed return on investment. This detailed learning data is rendered useless if it isn't accessible to classroom teachers, principals, and instructional support staff, who must then be able to turn this data into insights to pinpoint and solve potential teaching and learning challenges.

Learning analytics, though, is changing the game. Now educators and administrators have a wealth of smart data at their disposal, to help make more informed decisions when evaluating their practices and monitoring students' academic progress.

Learning analytics has the potential to help educators inform instruction by helping them to understand the learning capacity of their students while identifying certain patterns. It does this by helping to track students with academic challenges as well as tracking student engagement levels. Educators can also measure and compare student performance and have the information necessary to enhance and redesign courses if needed.

A Gold Mine of Information

Learning analytics can be used to build a variety of models about a student's knowledge, behavior, or even experience which can then be compared against a model built from a large number of students. This empowers educators to enact real-time interventions, adaptive measures, and provide relevant instructional strategies. The collection of data regarding student preferences and learning goals can help teachers with grouping and the personalization of curriculum, while domain modeling can help educators to determine the correct level or sequence at which to divide topics into modules, for instance. At the school level, trend analysis can help administrators with strategic decision-making by examining test scores and other student indicators.

CDW•G PEOPLE WHO GET IT®   **intel.**

Common Obstacles

While learning analytics' systems can help schools with self-service reporting and advanced data provisioning, it is not without its challenges in terms of implementation. Limited budgets and resources as well as difficulty in integrating information from various sources can sometimes be barriers. Other possible barriers could include:

- Administrators, faculty, and staff may mistrust institutional data, measurement, analysis, and reporting;

- Utilizing advanced analytics requires sufficient technical resources and a knowledgeable staff;

- Schools and districts may lack the ability to combine data from different systems; and,

- Privacy and policy must be considered when collecting, storing, and analyzing student data.

Developing Data-Friendly Strategies

For many school districts, utilizing learning data is often an intensive, manual process of extracting reports individually from multiple systems, then piecing these insights together into a format useful for decision-makers. This data isn't always valuable due to what data is captured and what data can be extracted from learning management systems (LMS) and student information systems (SIS). New learning analytics tools, however, can capture data from multiple sources then present that information in clear reports at the student, classroom, school, and district levels to reveal new associations. Predictive and prescriptive tools identify individual learning needs for students and help teachers address them more quickly than is possible with current assessment methods.

That said, K–12 schools should have a clear strategy for utilizing learning analytics to drive instructional improvement. And these improvements deepen as the ability to analyze data deepens. A culture of data-fueled insights depends on the engagement of school leaders, as educators and administrators will only be as committed as the perceived value in turning insights into real-world success.

Schools must establish a strong culture of data use to ensure that data-based decisions are made frequently, consistently, and appropriately. District and school-level IT staff need to join with assessment, curriculum, and instruction staff to iteratively improve data collection and analysis. Some questions to consider when looking through data include which instructional materials have been most effective and if the practices exhibited by successful teachers might serve as a model for others.

CDW-G® PEOPLE WHO GET IT®

intel.

Other Considerations

Many districts are better managing their data by building data warehouses. But for a district to deliver access to meaningful analytics requires:

- Careful review of current data systems and sources before developing a plan for system integration;

- Working with state education departments and analytics solution vendors for product offerings and consulting services;

- Creating school data teams to evaluate data, identify the needs indicated by that data, and to make decisions regarding school-level actions; and,

- Training teachers to use data to improve instruction.

When considering a learning analytics system, districts should question what the analytics are based on and who gets to see the analytic data and in what format? Decision-makers should also consider if the reports visualize the data in a way that educators can instantly make use of.

Developing a learning analytics system should be viewed as a series of steps rather than a one-time implementation. Starting with a small-scale application can help encourage a positive data-friendly culture and prepare for more powerful systems in the future. As schools and districts begin to more effectively utilize data, they need to help students and parents understand where this data comes from, and how it is used to inform teaching and learning.

Getting Smarter about Education

Unlike traditional achievement test results, learning analytics empower instructors with near-real-time access to easy-to-understand visual representations of student learning data at a level of detail that can inform their instructional decisions. And working from student data can help educators both track academic progress and understand which instructional practices are effective. By implementing learning analytics technology, educators and administrators can put data to constructive use for better learning outcomes.

View Additional Resources

Check out the rest of the Learning Analytics tools and resources on the **K-12 Blueprint.**

CDW-G PEOPLE WHO GET IT

intel.