

Learning Analytics for Families

What families need to know about learning analytics and its potential in schools

Schools have long collected educational records—from test scores to grades to attendance—about their students. However, most of this data was locked on paper in file cabinets and later in on-site digital storage. Now, as digital learning tools have proliferated, the amount of student data has exploded. What's more, this data is now stored in agile cloud environments where it is readily accessible. Analyzing, or mining, this data holds tremendous potential for personalizing the individual student learning experience and improving educational outcomes across K-12 education.

Even in the face of transformational benefits, learning analytics can be a controversial topic. Read through the following frequently asked questions to better understand how schools, educators, and edtech companies are using educational data and ensuring against its misuse.

Frequently Asked Questions

How does learning analytics help my child?

Learning analytics—the measurement, collection, analysis, and reporting of data about learners—helps schools and educators optimize the learning experience for all students, including your child.

Your child's digital activity already generates a wealth of raw data. Learning analytics turns this raw data into smart data. Cloud storage and new analytics tools allow schools to use data generated by your child and students around the world, analyze it, and make informed predictions about what your child has learned and is ready to learn next. Learning analytics will help schools move into the 21st century; smoothing the learning path for students and making teachers more effective.



What are some examples of how learning analytics is used in education today?

Learning analytics is a relatively new field and encompasses a broad array of specific applications in schools. Consider the following examples:

- 1. Building models:** In self-paced learning environments, online systems can use models to better inform next steps. If a student gets a question correct, the system can give the student a harder one. If a student signals that they are bored, the system can notify an educator or change up instruction to re-engage the learner.
- 2. Profiling users:** A student's data contributes to a learner profile. Smart systems can use this profile to match students to other students with similar learning needs. The teacher can then use this information to better personalize teaching and learning experiences for their students in real-time.
- 3. Aggregating data:** By collecting and analyzing data across schools and districts, educators can attain a high-level view of student learning. Identifying patterns and trends can help make large-scale changes to educational systems to benefit entire communities.



1. Visit the [Data Lab at the National Center for Education Statistics](#) to get a sense of the sheer amount of aggregated data about a wide variety of education topics.

How is my child's data and privacy protected?

Federal laws govern how educational institutions—as well as companies—can collect, share, and use student data and information.

- The [Family Educational Rights and Privacy Act \(FERPA\)](#) protects the privacy of student records and personally identifiable information (PII)—name, address, student ID, and other info that can link back to an individual. Schools must have written permission from families to disclose student information. In addition, FERPA obligates schools to give families access to their children's educational data.
- The [Children's Online Privacy Protection Act \(COPPA\)](#) requires online services to first obtain parental consent prior to the collection, use, or disclosure of PII for children under 13. It details what a website operator must include in a privacy policy, when to seek verifiable consent from a parent or guardian, and an operator's responsibilities to protect children's privacy and safety online.

Additionally, many edtech companies, including those that engage in learning analytics, are voluntarily signing the [Student Privacy Pledge](#). Signatories are legally bound to “carry out responsible stewardship and appropriate use of student personal information”.

Ask your school or district for more information about their compliance to laws and regulations as well as steps they take to protect student PII.

Does learning analytics replace the teacher in making decisions?

No, learning analytics will not replace teachers. Instead, the goal of learning analytics is to help educators make more informed, evidence-based decisions to improve student learning. Learning analytics systems can mine data that is normally cumbersome or not possible for educators to attain.

Then these systems can aggregate the data, run it through models, and present it in readily accessible and meaningful displays. In this way, learning analytics can help educators gain a new view of their classroom and their students and base their decision making, not on their intuition but on actual data.



View Additional Resources

Check out the rest of the Learning Analytics tools and resources on the [K-12 Blueprint](#).