

Guiding Principles and Strategies for Learning Analytics Implementation

This document shares four guiding principles and their accompanying strategies for institutions to move forward with the implementation of learning analytics. These guiding principles provide an evidence-based framework that was developed in consultation with leading experts in learning analytics and equity research for scalable and equity-focused adoption.

Introduction

For all students to have an equal opportunity to succeed, instructors must personalize learning rather than teach to a fictional average student. Learning analytics has the potential to assist instructors in the development of personalized learning at scale and to contribute to more equitable and socially just academic outcomes.

The first resource in this [Learning Analytics Strategy Toolkit](#) reported results of the [Learning Analytics Survey](#). This resource, “Guiding Principles and Strategies for Learning Analytics Implementation,” describes four key guiding principles identified through consultation with leading experts in learning analytics and equity research. These guiding principles provide an evidence-based framework for scalable, equity-focused learning analytics adoption. The next resource in this toolkit, [Assessing Learning Analytics Readiness](#), offers a self-assessment as well as tools and strategies that institutions can use to launch their planning projects.

The guiding principles serve to fill the void highlighted by the results of the Learning Analytics Survey. Although many institutions have adopted learning analytics in some capacity, adoption is often siloed in use by individual faculty, courses, or departments. Few have the required technology infrastructure and knowledge-building framework to act on student data at scale. In addition, there are few examples of wide-scale learning analytics adoption that are expressly focused on equity and eliminating race and income as predictors of student success.

This document acknowledges variation in each institution’s maturity of adoption and current use of learning analytics to ensure any campus can use them to guide implementation strategies that target actions that are critical to an equity-focused approach. The guiding principles address several key foundational actions necessary during adoption.

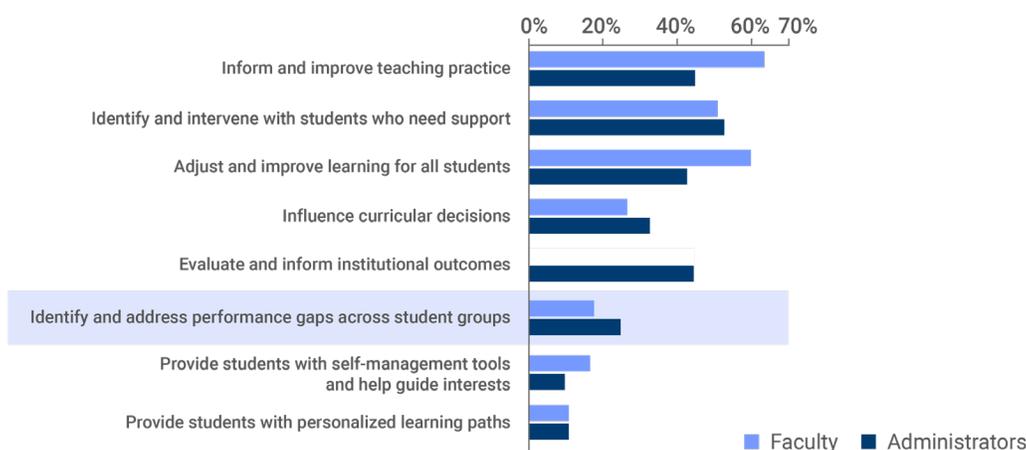


1. Equity & Learning Outcomes

Explicitly set and communicate institution-level goals to achieve equity in academic outcomes across student groups, including students of color and low income, through the use of learning analytics.

The vast majority (92%) of faculty and administrators who responded to the Learning Analytics Survey reported a lack of clarity around the intended use of learning analytics. Most view learning analytics as a tool to inform instruction and intervene when students require extra support; only 30% reported using student data to achieve more equitable outcomes in academic performance across student subgroups.

Primary Uses for Learning Analytics



Call to action

Institutions must communicate a consistent message for the use of learning analytics to identify and address academic outcomes that strongly suggest disparity by student groups. This approach needs to include an institution-wide understanding of the nature and diversity of the student community. A diverse group of campus stakeholders (including faculty, students, and staff of color) should participate in goal-setting, planning, and design.

Strategies to execute

- Define consistent course-level learning outcomes across general education and foundational courses with multiple sections to enable analysis at scale.
- Working with key stakeholders, set and share quantifiable goals and anticipated outcomes at both the institution and course level.
- Faculty review their de-identified learning outcome data by student subgroup.
- Include key stakeholders in the interpretation and review.
- Create cross-discipline communities to interpret data and share best practices.
- Develop a continuous learning culture and make adjustments to close identified gaps.
- Especially in early stages, start your learning analytics efforts in ways that integrate with existing activities (e.g., use of systems) and processes (e.g., end of term review cycles).



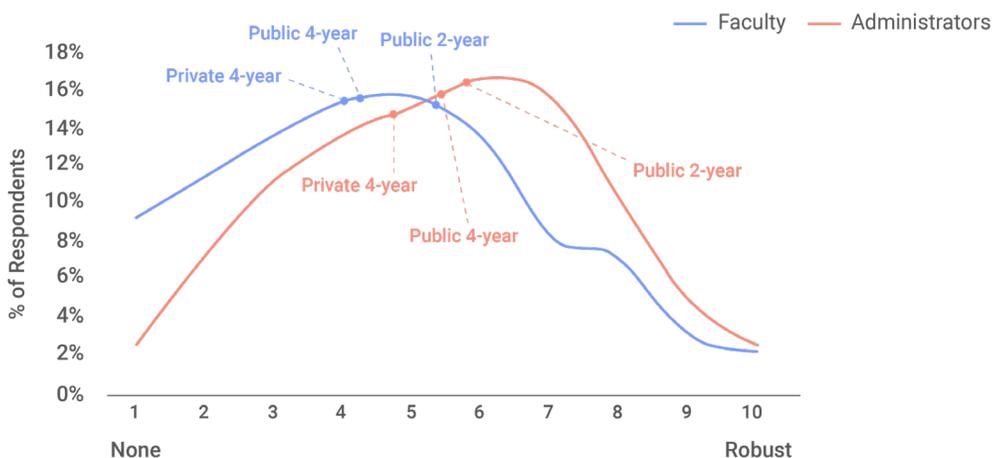
2. Faculty, Administrator, and Student Inclusion and Support

Ensure professional development and ongoing support across stakeholders to implement, analyze, and act on data.

It is essential for campus leaders to include all stakeholders to allow for coordinating adoption, establishing protocols to ensure data privacy and ethical use, and to arrange evidence-based, pedagogically sound intervention strategies. A change in institutional and academic culture requires planning processes that create conditions that allow participants to both think and feel positively about change.

Only 5% of faculty and 7% of administrators reported that their institutions provide robust training opportunities to support the adoption of learning analytics. It is also one of the greatest barriers today for faculty that limits wide usage.

Perceived level of Training, Support, and Infrastructure for Faculty, Administrators



Call to action

A diverse group of campus stakeholders (including faculty, students, and staff of color) should participate in goal-setting, planning, and design.

Strategies to execute

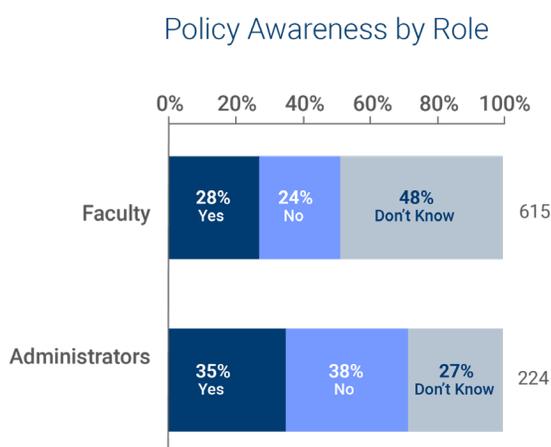
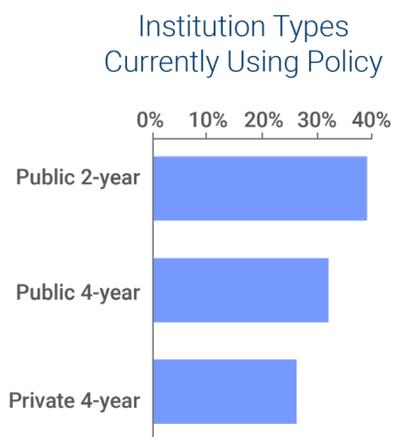
- Ensure that stakeholders have appropriate access to student data.
- Include key stakeholders in the interpretation and review of student data.
- Create cross-discipline communities to interpret data and share best practices.
- Develop a continuous learning culture that works to make adjustments to close identified gaps, and provides sustained support instead of one-off training sessions.



3. Data Ethics, Privacy, & Policies

Establish and communicate institutional data policies surrounding the use of student data (beyond FERPA). Policies should include fidelity and responsible use, consent and privacy, and data transparency.

30% of faculty and administrators surveyed look to institutional policies to dictate the use of student data in the classroom. However, 42% are unaware of any policies to support adoption at their institution. Lack of comfort and awareness around key ethical issues – such as security, data access, and student privacy – inhibit the adoption of learning analytics today.



Call to action

Providing sufficient professional development to support both the initial implementation and ongoing use of student data is critical to ensure that faculty can both interpret and act on student data with institutional guidance.

Strategies to execute

- Provide sustained support for both faculty and students to leverage teaching and learning technology platforms to reduce equity gaps.
- Provide sustained, high-quality professional development to integrate technology platforms and interpret student data into existing workflows.
- Provide guidance on specific actions to take or avoid when interpreting student data to limit unintended biases.
- Continuously demonstrate and report progress toward goals in order to promote further adoption among faculty.
- Create cross-discipline learning communities of faculty to interpret data and identify actions to improve student learning and teaching.
- Ensure some professional development funding can be allocated based on learnings and interventions to instructional approaches.

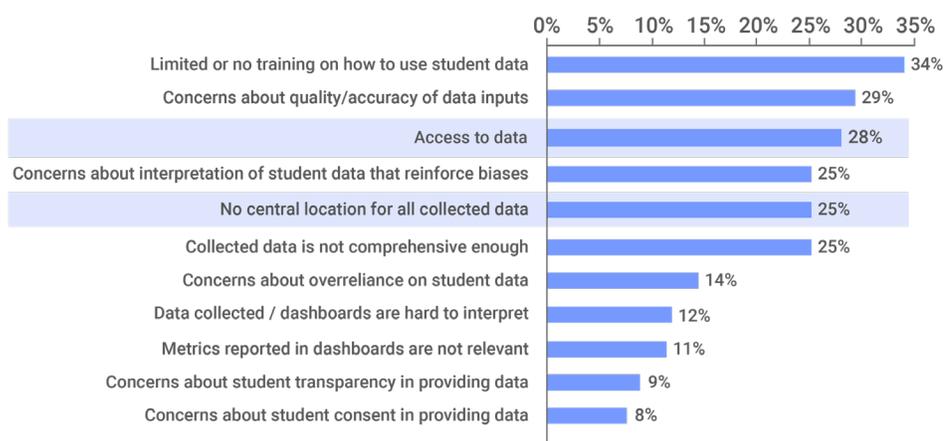


4. Technology & Infrastructure

Ensure that technology and infrastructure eases the ability for users to leverage student data. Outline and communicate procedures for acquiring new education technology to create a seamless integration with existing campus infrastructure.

Users today are leveraging data from a wide variety of systems, creating complexity in the ability to use technology tools to support learning in the classroom. Having the proper infrastructure – both in the technology adopted and the in-house expertise – to ease adoption is foundational in supporting the uptake of tools. 28% and 25% of respondents, respectively, cite access to data and lack of a centralized database as barriers in uptake today.

Top Barriers for Faculty & Administrators in Using Learning Analytics



Call to action

Administrators must review the process for using and interpreting student data to ensure that technology and other infrastructure supports ease of adoption as well as ongoing use.

Strategies to execute

- Create a centralized source of student data.
- Ensure stakeholders have appropriate access to both learning and demographic data.
- Form a committee of different stakeholders to determine current capacity and conduct a needs assessment in order to reach learning analytics goals.
- Develop a long-term vision to build capacity to meet learning analytics goals.
- Tailor dashboards and views to the goals set out by your institution and provide professional development to faculty and administrators.

TOOLKIT

This document is one resource in a series. View the entire [Learning Analytics Strategy Toolkit on Solve](#).

Contributors

Thank you to the following individuals who have contributed to this work:

- **Cary Brown**, IMS Global
- **Colleen Carmean**, Ethical Analytics Group
- **D. Christopher Brooks**, EDUCAUSE
- **Jack Suess**, University of Maryland, Baltimore County
- **Jessica Williams**, Every Learner Everywhere
- **Jill Buban**, Fairfield University
- **John Fritz**, University of Maryland, Baltimore County
- **John Whitmer**, ACT
- **Julie Neisler**, Digital Promise
- **Justin Dellinger**, dLRN (University of Texas at Arlington)
- **Karen Vignare**, Association of Public & Land-grant Universities (APLU)
- **Kim Arnold**, University of Wisconsin-Madison
- **Laura de Abruna**, Association of Chief Academic Officers
- **Lisa Berry**, dLRN (University of Texas at Arlington)
- **Malcolm Brown**, EDUCAUSE
- **Mollie McGill**, WCET
- **Nani Jackins Park**, equityworksNW
- **Natasha Jankowski**, National Institute for Learning Outcomes Assessment
- **Patsy Moskal**, University of Central Florida
- **Peter Van Leusen**, Arizona State University

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For questions, contact resources@everylearner.org 