How to design actionable edtech dashboards
Eleven guiding principles & sources of inspiration

Actionable edtech dashboards
enable understanding, decision-making, and actions

Great dashboards empower your users

by transforming **DATA** into INSIGHTS

that enable them to…

understand > decide > action

Eleven principles for designing
Actionable edtech dashboards

understand > **decide** > **action** (e.g. Instructor)

Help users quickly understand, interpret, and navigate data by visualizing to:

1. *Tell a story* of the journey of your user to their end goals

2. **Strive for the five-second rule** for your users to be able to answer their questions

3. Reduce noise using calm, consistent design and cues so insights pop

Help users make high-value decisions by providing and combining metrics to:

4. Create a **360** degree picture of a learner and their learning

5. Provide formative insights for tactical decisions at valuable moments

6. `Help strategic planning` with trends for course and class adjustments

7. Ensure insights are underline appropriate and reliable for the type of decision

Help users take impactful actions with features, content, and messaging that:

8. *Enable efficiency* by ranking issues, and clustering common problems

9. Close the gap by helping instructors see which learners need help, when, and how

10. **Amplify impact** by teeing-up evidence-based interventions

11. *Promote self development* by helping learners see their progress and grow grit

Eleven principles for designing
Actionable edtech dashboards (detailed)

understand > decide > action (e.g. Instructor)

Help your users to quickly understand, interpret, and navigate data by visualizing to:

1. **Tell a story** of the journey of your user to their end goals (intended outcomes), e.g. learner progress to course success and how to help

2. **Strive for the five-second rule** for your users to answer key questions, use an inverted pyramid (high-level KPIs down to forensics), distinguish urgent (tactical) from important (strategic)

3. **Reduce noise** using calm, consistent, restrained design (color, visual and graphical representations, orientation, and wording) to reduce extraneous cognitive load so insights pop

Help your users to make high-value decisions by providing and combining data and metrics to:

4. **Create a 360° picture** of a learner and their learning (cognitive, non-cognitive, behavioral)

5. **Provide formative and specific insights** at the right place and time (e.g. just-in-time insights before class, trickiest objectives by student)

6. **Help strategic planning** with trends for class and course adjustments (e.g. for mid terms, vs. prior year)

7. **Ensure insights are appropriate and reliable** for the intended decision (e.g. formative for nudges, rigorous for high stakes)

Help your user to take impactful actions with features, content, and messaging that:

8. **Enable efficiency** by ranking class-wide objectives of difficulty, clustering groups of learners with common problems, and teeing-up interventions

9. **Close the gap** by helping instructors see which individual learners need help, when, and how, and providing targeted, personalized, motivational help

10. **Amplify impact** by providing recommended evidence-based interventions (e.g. targeted feedback, post-class remediation)

11. **Promote self development** by helping learners understand their progress, boost their motivation, grow their grit, and evolve their study habits

Inspiring resources for designing
Actionable edtech dashboards

Data visualization

Beautiful evidence, by Edward R. Tufte—his influential principles on information design remain timeless in print and digital.

Information is beautiful, by David McCandless—a non-stop source of inspiration on creative and compelling visualizations.

What Data Visualisation Experts Wish They Knew When They First Started, by Evelina Judeikytė—an anthology of lessons learned from leading designers.

Education dashboards

Guide To Actionable Student Data Part 2 — How Could EdTech Companies Provide Actionable Insights For Teachers, by Diana (Fangyuan) Yin— some rock-solid basic principles for how to make data more usable to educators.

Making Better Data Dashboards, by Charlotte Duncan et al.—a great summary of current problems, key vocabulary, and a very useful framework (p. 5).

Designing Systemic Learning Analytics at the Open University, by Professors Belinda Tynon and Simon Buckingham Shum—a review of the institutional and edtech requirements for effectively using data to drive student success.

Learning design

Multimedia learning principles, by Professor Rich Mayer—his principles for multimedia design are acutely relevant for dashboard design.

Learning Science Foundations on analytics, by Dr. Jeff Bergin et al.—a fantastic synthesis of learning science research and evidence-based principles.

Data Visualization, by the Pearson Learning Design team—a set of rigorous and academic evidence-based principles, and a tool to self assess your approach.