Smarter Demand: Evidence-Based Purchasing Decisions

Final Report

April 2022 | Prepared by The Decision Lab

THE DECISION LAB

Project Background

The Decision Lab (TDL) is a socially-conscious applied research firm. TDL provides consulting services to some of the largest organizations in the world, carries out research in priority areas, and runs one of the largest publications in applied behavioral science. TDL's goal is to use insights from a variety of fields to understand and improve decisions for social good.

With the Gates Foundation, TDL was tasked with applying behavioral science to increase the adoption and use of solutions proven to be effective at improving education outcomes, particularly for students from low-income or marginalized backgrounds who are less likely to have access to high-quality instructional materials.[1] TDL leveraged scientific thinking and behavioral science frameworks to understand the decision-making processes and influences that facilitate or prevent the adoption and selection of high-quality evidence-based instructional materials, with the support of field leaders, ISTE and EdReports.

BILL & MELINDA GATES *foundation*

The Bill & Melinda Gates Foundation is a nonprofit fighting poverty, disease, and inequity around the world. Under the U.S. Program, K-12 Education, the Foundation works to ensure everyone in the United States can learn, grow, and get ahead, regardless of race, gender, ethnicity, or family income.

ISTE

ISTE, the International Society for Technology and Education, inspires educators worldwide to use technology to innovate teaching and learning, accelerate good practice and solve tough problems in education by providing community, knowledge, and ISTE standards.

edreports.org

EdReports is a leading authority on instructional materials review on a mission to increase the capacity of teachers, administrators, and leaders to seek, identify, and demand the highest quality instructional materials.

[1] The New Teacher Project. (2018). The Opportunity Myth. https://opportunitymyth.tntp.org/

EXECUTIVE SUMMARY

Problem Context: A multitude of signals of quality makes decision-making for instructional materials complex

The instructional materials available to teachers and students have significant impacts on learning outcomes. This is supported by the ample research showing that high-quality materials are a key lever for college and career readiness.[1]

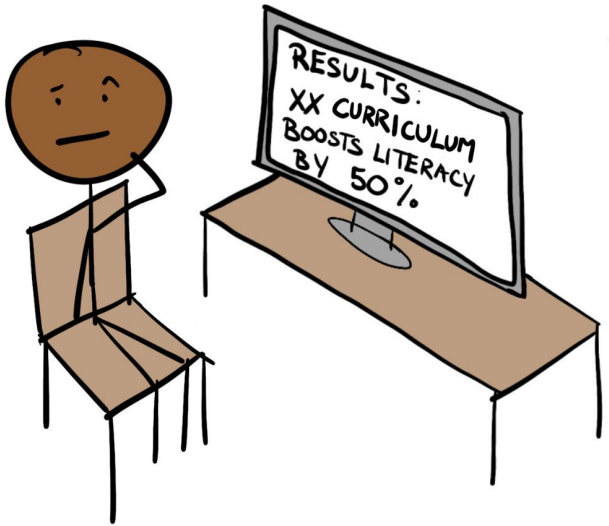
A large ecosystem exists to create and disseminate signals of quality of instructional materials, but that ecosystem is complex and difficult for time-pressed decision-makers to navigate.

[1] Amplify Education. (2021, January 21). Why HQIM. Amplify. https://amplify.com/why-hqim/

Considerations: Understanding exactly how decision-makers interact with evidence and perceive signals is key to optimizing choices

Historically, evidence creators have not fully accounted for the decision-making contexts, or the biases and heuristics that inform ultimate evidence use.

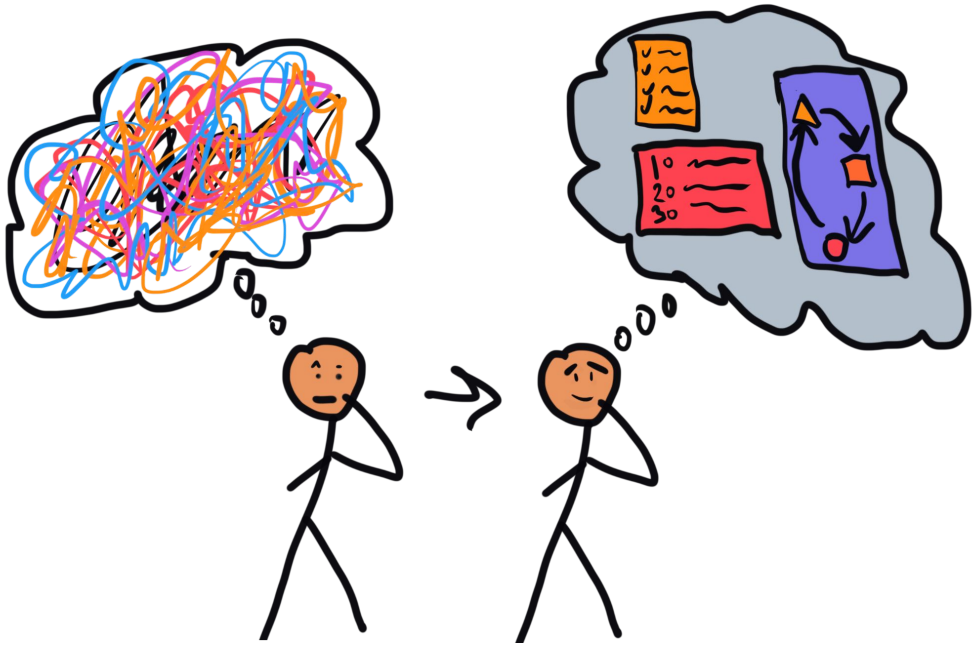
And decision-makers who have experience engaging with evidence have been influenced by negative instances of evidence "overselling" results or being inapplicable to their district contexts, revealing how future efforts require a deep contextual understanding of the decision-makers themselves.



Hypotheses: Through making evidence more actionable, contextually relevant, and salient, decision-makers can decide more effectively

Effective district purchasing decisions depend on accurate and well-communicated signals about what works.

Future efforts to encourage evidence uptake should prioritize making evidence more usable and actionable to promote high-quality purchasing decisions.



These hypotheses informed the research questions on the diagnosis of barriers and drivers for evidence engagement

Key questions explored

What are the **key barriers to evidence use** along the EdTech and core curriculum purchasing journeys?

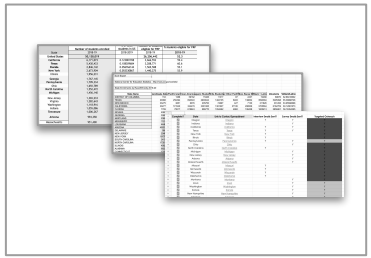
Do these barriers **differ** based on identifiable district or decision-maker characteristics?

What **predicts evidence use** for different groups?

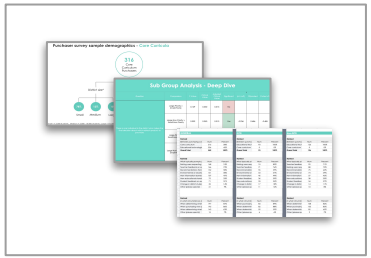
How can evidence creators provide and promote high-quality evidence that overcomes the barriers and leverages the drivers?

Extensive research activities enabled us to explore these questions on the supply and demand sides

Five partner organizations engaged in developing **sampling strategy**



Emphasis on **priority districts** through targeted outreach



Sample demographics and sub-sample findings **substantiated** and documented

56 EdTech Vendors

226 EdTech Purchasers

316 Core Curriculum Purchasers

93 ISTE Districts

193 EdReports Disitricts

The inputs and outputs were informed by a broader contextual understanding

Critical Considerations

Interconnected
to previous and existing efforts to synergize and cross-pollinate with partners

Grounded in Human Behavior
ensures signals of quality align with existing mental models

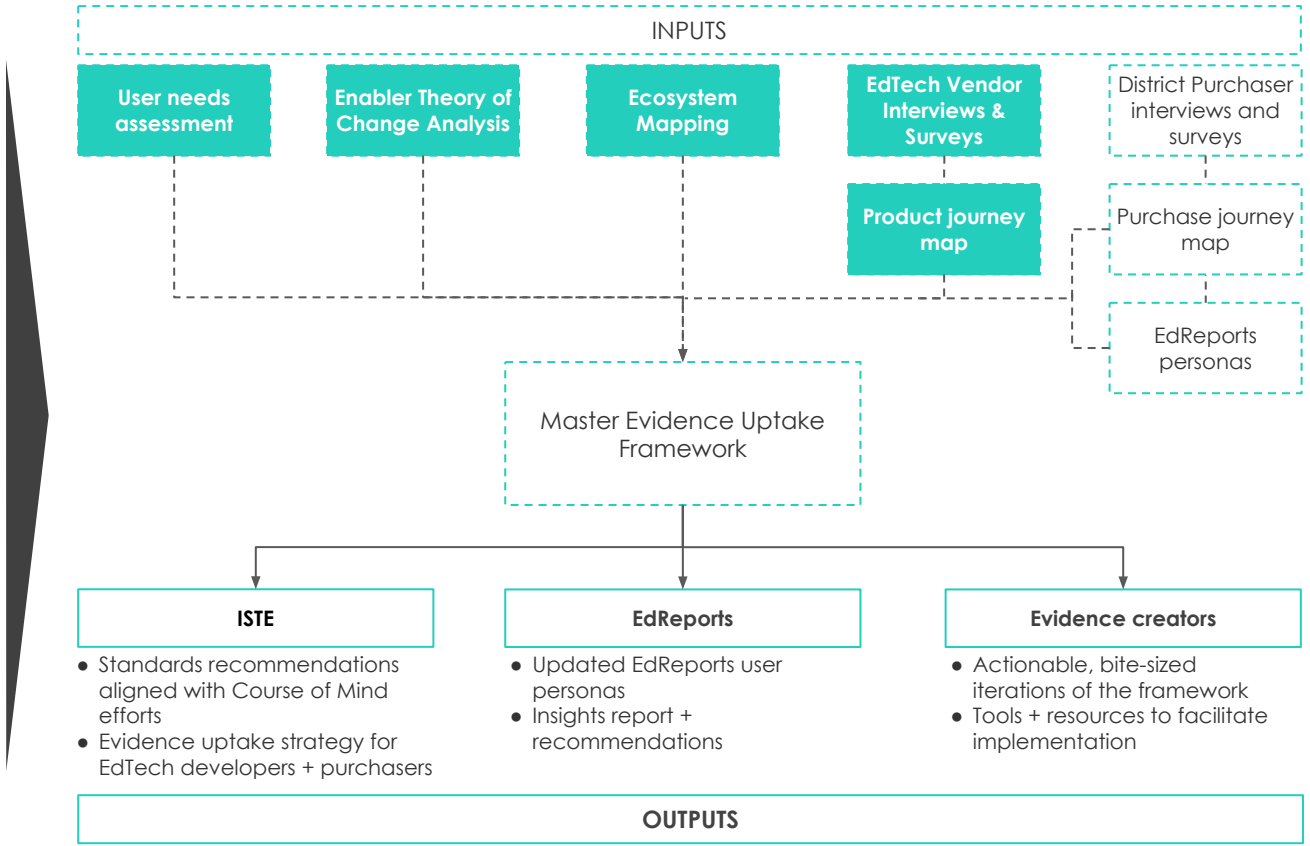
Network-focused
accounting for the pivotal role networks play in influencing decisions

Downstream & Upstream
to identify and meet downstream and upstream actors' needs

Contextualized
evidence mapping in the context of the six dimensions of quality

Sensitive to Creating Accurate Purchaser Expectations
built on understanding of how purchasers are likely to interpret the signal and focused on communicating with transparency

Forward-looking
acknowledging signals of quality will be codified progressively



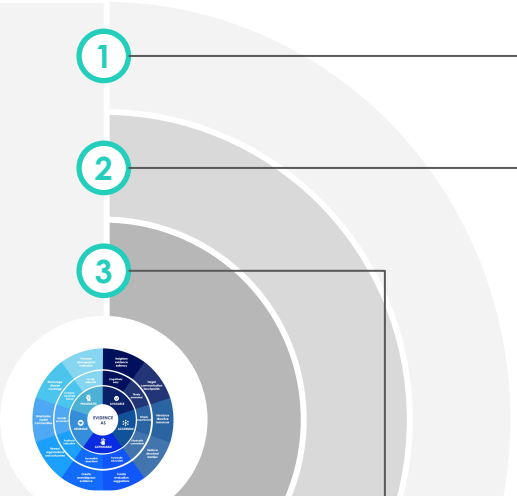
Top Three Themes: EdTech vendors' evidence use

	THEME	SUPPORTING DATA
1	**Perceived high time investment required to earn a standard or certification prevents broad uptake** and information about the required effort is hard to find.	**60% of vendors agree** there isn't enough information about the time-investment required to earn a standard or certification.
2	**Vendors seek out standards alignment when purchasers demand alignment with those standards;** existing standards do not synergize or highlight alignment with existing EdTech standards (e.g., state standards for operability).	**Only 53% of vendors agreed** that the company's users demand for products to align with a standard. *"We decided to align with the ISTE Standards after attending the ISTE Conference and seeing that our competitors were aligned."*
3	**Vendors conduct extensive market research, drawing signals from their competitors rather than from users;** confirming pre-existing beliefs about user needs and priorities that may not map onto existing pain points.	**59% of respondents** chose internal company knowledge as one of the top three most useful type of evidence to inform product development decision-making. *"We always purchase market research briefs from the same industry sources."*

Top Three Themes: District purchaser's evidence use

	THEME	SUPPORTING DATA
1	 **Evidence use preferences and habits vary widely** depending on predictable characteristics including the purchasing journey followed and the decision-maker segment.	**Larger districts** were significantly more likely to use predetermined criteria and rubrics to evaluate purchasing decisions. **Engagement or alignment** with external evidence validators impacts evidence use in decision-making.
2	 **Peer reviews and WoM considered informative signals of quality by nearly all purchasers** although the relative weight placed on this information differs depending on the journey.	**The vast majority of both core curriculum (82%) and EdTech purchasers (94%)** were significantly likely to agree with *"My district considers peer recommendations including recommendations from other districts when selecting core curriculum instructional materials."*
3	 **Purchasers strongly prefer evidence that is accompanied by resources on application** over raw data or reports without interpretive guidelines or visualizations.	**Visualizations** strongly preferred (46%) over raw data (4%), with a strong preference for data accompanied by some form of interpretation (50%). **Findings accompanied with the relevant demographic data** (73%) to understand the applicability of findings to a district.

The final recommendations support evidence creators' strategies at three levels, based on their target audiences



Stage 1: Recommendations targeting EdTech Vendors

- Focused on promoting the use of evidence, including standards and certification programs among EdTech vendors
- ISTE-specific recommendations to promote uptake of the ISTE Standards and Seal of Alignment, in addition to strategies to facilitate positive social norms toward evidence-use among vendors

Stage 2: Recommendations targeting District Purchasers

- Mapped to the EdTech and core curriculum journeys to ensure alignment with highest impact touchpoints
- Identification of highest impacted segments, separated by EdTech and core curriculum

Stage 3: Broader Recommendations for Evidence-Creator Ecosystems

- Recommendations encompass standards and best practices, based on behavioral drivers, that evidence creators can follow to ensure their market signals ultimately drive awareness and uptake, with the goal of achieving positive downstream outcomes for priority student populations
- Translation of recommendations into a series of actionable resources and tools (e.g., interactive online tools, rubrics, checklists, custom-generated pdfs, etc.), for different audiences of evidence creators

Contents

Glossary

CC	**Core Curriculum:** the body of knowledge and skills focused on making sure that all students involved learn certain material tied to a specific age or grade level
DCE	**Discrete Choice Experiment:** a quantitative method to elicit preferences from participants without directly asking them to state their preferred options
DoQ	**Dimensions of Quality:** generalizable characteristics (e.g., features, approaches, technology) that make individual solutions effective
EdTech	**Educational Technologies:** all technology or software used to facilitate learning in the K-12 space, such as online assessment tools and learning management systems
Evidence	Any information that informs instructional materials decision-making (e.g., academic literature, websites), distinguished between more credible versus more informal inputs
HQIM	**High-Quality Instructional Materials:** evidence-based, standards-aligned instructional materials (EdTech or CC materials) that leverages agreed upon instructional frameworks that develop learners' academic, behavioral, social, and emotional knowledge, skills, and habits
KPI	**Key Performance Indicator:** a measurable value that indicates how effectively an organization is achieving a desired result
Priority District	Low-income districts (>50% FRP/socioeconomically disadvantaged, any income data that was available) and districts with >50% Black, Latinx/ELL student populations
WoM	**Word of Mouth:** the passing of information from person to person using verbal communication

PROBLEM CONTEXT

Three trends in the instructional materials market illustrate the need for greater uptake of high-quality evidence

1 Accelerated demand for EdTech products due to switch to online learning

- EdTech use increased by over 50% from pre-pandemic levels, with studies showing over 1,500 different tools are used by US school districts
- Despite overall increases in technology use, online learning has exacerbated learning gaps between different student groups with particularly negative effects on low-income, Black, and Latinx students

2 Increased understanding of the importance of HQIM for priority student groups

- Despite overall increases in EdTech use online learning has exacerbated learning gaps between different student groups, particularly for low-income, Black, and Latinx students (Dorn et al., 2021)
- Limiting high-quality EdTech solutions to non-priority student groups threatens to widen the inequality gap (Schmidt et al., 2015)

3 Less mature DoQ for EdTech compared to Core Curriculum

- Core curriculum has mature quality indicators (such as standards-alignment) but similarly developed equivalents do not exist for EdTech products
- As a result, EdTech companies look to their competitors and users to respond to trends in the market, rather than using formal quality indicators to inform decision-making

Goal

- Assess the increasing importance of EdTech products for district purchasers
- Identify levers to codify signals of quality for EdTech products

- Map and compare decision journeys for instructional materials made in priority vs non-priority districts

- Understand the relative importance of existing EdTech market signals and gaps
- Identify the key, foundational signals of quality for EdTech products

Schmidt, W. H., Burroughs, N. A., Zoido, P., & Houang, R. T. (2015). The Role of Schooling in Perpetuating Educational Inequality. Educational Researcher, 44(7), 371–386. https://doi.org/10.3102/0013189x15603982
Dorn, E., Hancock, B., Sarakatsannis, J., & Viruleg, E. (2022, March 23). COVID-19 and education: An emerging K-shaped recovery. McKinsey & Company. https://www.mckinsey.com/industries/education/our-insights/covid-19-and-education-an-emerging-k-shaped-recovery

However, time-pressed decision-makers face barriers to choosing HQIM at three key stages: identification, evaluation, and piloting

Identifying

The way educators scope for products available in the market can be prone to biases, such as judging quality based on visual appeal or extra features, rather than the objective benefit to learning outcomes (Bugler et al., 2017).

Further, informal inputs such as word of mouth and publisher marketing efforts highly influence which materials are considered (Pinkelman et al., 2022).

Evaluating

Challenges in evaluation are particularly notable in smaller districts with fewer resources dedicated to optimizing decision-making, the evaluation process for new products or materials can lack the structure and formality required to arrive at an objective decision (Bugler et al., 2017).

Piloting

Our data found that decision-makers often experience sunk costs after piloting instructional material given the process of piloting consumes a substantial amount of resources.

As a result, rather than switching to a better alternative, they stick to a mediocre or satisfactory product.[1]

These **barriers** impact all students, but **disproportionately** affect **Black, Latinx, English Language Learner** and **low-income student populations**

(1) See Slide 142 and 148.

Bugler, D., Marple, S., Burr, E., Chen-Gaddini, M., & Chen-Gaddini, N. (2017, March). How Teachers Judge the Quality of Instructional Materials: Selecting Instructional Materials, Brief 1 – Quality. WestEd. https://www.wested.org/resources/selecting-instructional-materials-brief-1-quality/#
Pinkelman, S. E., Rolf, K. R., Landon, T., Detrich, R., McLaughlin, C., Peterson, A., & McKnight-Lizotte, M. (2022). Curriculum Adoption in U.S. Schools: An Exploratory, Qualitative Analysis. Global Implementation Research and Applications, 2(1), 1–11. https://doi.org/10.1007/s43477-022-00039-2

Deep Dive: Low-quality instructional materials hinder outcomes for Black, Latinx, English Language Learner, and low-income students

	Core Curriculum	Education Technology
Impact on student population broadly	Previous research has found that low-quality instructional materials can substantially hinder student learning by reducing engagement, accessibility, and alignment to common standards; these consequences rival differences in teacher effectiveness.	Previous research has found that EdTech can improve students' learning outcomes in maths and literacy. Districts with lower integration of technology into their curriculum tend to fare worse in student achievement than those than do.
Impact on disadvantaged students	Low-quality curriculum materials disproportionately impact disadvantaged students because they lack the sufficient external resources to compensate for the gaps created from deficiencies within the curriculum. In addition, low-quality curriculum materials are often less sensitive to the cultural backgrounds of minority populations, which can lessen the students' sense of belonging.	While technology has the potential to support disadvantaged students, evidence suggests that these disadvantaged student populations tend to experience lower-quality technology implementation than their peers (Andrade Johnson, 2020). High-quality EdTech adapts to students' learnings and backgrounds, enabling them to catch up to their grade level more efficiently.

Andrade Johnson M.D.S. (2020) Digital Equity: 1:1 Technology and Associated Pedagogy. In: Papa R. (eds) Handbook on Promoting Social Justice in Education. Springer, Cham. https://doi.org/10.1007/978-3-030-14625-2_142

On the evidence supply side, evidence creators face unique barriers in creating evidence aligned with user needs and preferences

Interviews with primary evidence creators in the EdTech and core curriculum spaces (e.g., EdReports, ISTE, CASEL, etc.) revealed common friction points in creating and promoting evidence of quality.

	INSIGHT	SUPPORTING QUOTE	GOAL
1	**Evidence creators find it difficult to identify the appropriate tradeoff between rigor and user friendliness**	*"We want to get across hard things without dumbing it down a lot… we don't want to dumb it down to the point where you are losing critical pieces and important nuance."*	Provide guidelines around the appropriate length and level of detail for evidence aligned with user needs
2	**Staff involved in evidence creation and those involved in evidence dissemination can be disconnected and siloed in their work, preventing unified efforts to measure outcomes**	*"There are lots of silos in this work, especially with any agencies that are involved. Field-facing support teams work with educators and are sometimes not even aligned on quality of materials."*	Align with evidence creators around messaging that target KPIs specific to evidence creation
3	**Challenges to create contextually sensitive recommendations when that level of granularity means working with a limited pool of data**	*"The data get thin fast. Once you narrow by grade level, subject, and state, things get small quickly."*	Identify opportunities to frame evidence that provides realistic expectations about efficacy in different settings

METHODOLOGY

First, we engaged vendors to map the EdTech development process and assess how these actors engage with evidence

In collaboration with ISTE, we developed an approach to capture a broad sample of EdTech vendors and connect with individuals within these companies who had knowledge of how evidence is engaged in product decision-making.

Sampling Strategy

Focused on EdTech leaders in product-relevant roles across various organizations:

- Vendors with products that have the **ISTE Seal of Alignment**
- **Different-sized** vendors
- Vendors from **diverse product niches**

Outreach

Cold-emailed vendors via their **organization websites**

Leveraged vendors through **EdTech social media** groups

Contracted winners of the **2021 EdTech Digest Awards**

Leveraged **ISTE networks**

Final *N*

Interviews:

- Vendor $N = 15$ (ISTE-aligned $N = 6$)

Survey:

- Vendor $N = 41$ (ISTE-aligned $N = 11$)

N = sample size.

Then, to study demand-side dynamics of EdTech and curriculum, we recruited K-12 purchasers for interviews and surveys

After consulting with partner organizations, we developed an approach that allowed us to 1) capture a broad sample of school district decision-makers who play key roles in EdTech and core curriculum selection, and 2) garner specific representation subgroups, such as ISTE, EdReports, and priority districts.

Sampling Strategy

Targeted **300** purchasers across **50** U.S. states, with dedicated outreach to:

- **Districts using ISTE and EdReports**
- **Priority districts:*** low-income districts with high % of Black/Latinx and ELL populations
- **Larger districts:** top 200 per state by student population

Power Calculation

Performed an **a priori power analysis** using G*Power

- A minimum of **60 respondents per subgroup** (e.g., ISTE districts, priority districts) would be required to detect significant effects

Outreach

Cold-emailed EdTech and curriculum leadership found on **district websites**

Leveraged **listservs** and organizations found through interviews

Leveraged **ISTE networks** and **EdReports networks** (e.g., Twitter, Facebook, newsletters)

Final *N*

Interviews:

- EdTech purchaser $N = 33$ (ISTE-aligned $N = 19$)
- Curriculum purchaser $N = 36$ (EdReports-aligned $N = 24$)

Survey:

- EdTech purchaser $N = 226$ (ISTE-aligned $N = 93$)
- Curriculum purchaser $N = 316$ (EdReports-aligned $N = 193$)

N = sample size. * Priority district defined as as low-income districts (>50% FRP/socioeconomically disadvantaged, any income data that was available) and districts with >50% Black, Latinx/ELL student populations.

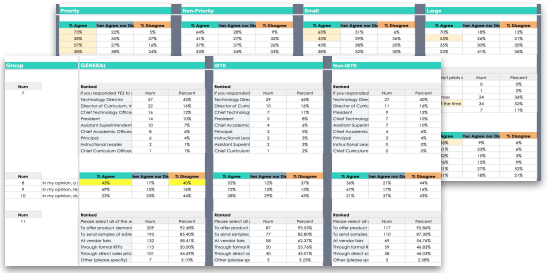
After data collection, we conducted analyses at multiple levels: overall, ISTE use, EdReports use, priority/non-priority, smaller/larger districts

Descriptive statistics

Before conducting inferential statistics to test the hypotheses, basic summary statistics were conducted on the quantitative data:

- Proportion of choice for a given option
- Averages
- Percentages of agreement with statements
- Rankings

Qualitative data was assessed for recurring themes.



* Applied to purchaser data only.

Inferential statistics*

To test the hypotheses, inferential statistical analyses were conducted based on a standard alpha level of .05.

- Two-sample *t*-tests, two-tailed distribution: for inter-question differences between mutually exclusive subgroups
- One-sample *t*-tests, two-tailed distribution: for aggregate effects for five-point Likert scale questions
- One-sample *t*-tests, one-tailed distribution: for aggregate effects for binary choice questions
- Kruskal-Wallis *H* test: for ranking questions
- Two-way ANOVA: for mutually-exclusive two-dimensional subgroupings

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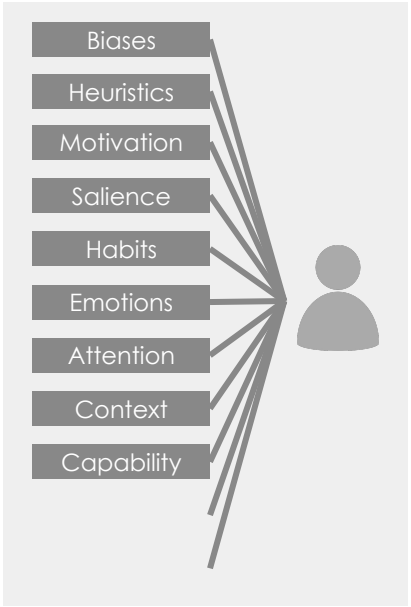
- Bonferroni method to control for Type 1 error
- Unpaired *t*-tests: for post-hoc confirmatory analysis

Finally, we deployed behavioral levers and frameworks to identify points of leverage and create evidence use recommendations

1 Examined levers influencing evidence use among vendors and purchasers

2 Consulted frameworks to pinpoint barriers and drivers at unique touchpoints

3 Developed a framework to inform the creation of recommendations



- Behavior change wheel
- CRI²SP
- COM-B
- M.I.N.D.S.P.A.C.E.
- SaniFOAM
- Defra's 4E
- E.A.S.T.
- Barrier analysis
- Self-regulation theory

Core Fields

Psychology
Neuroscience
Sociology
Behavioral Economics
Anthropology
Marketing

Specialized Fields

K-12 Education
Learning Sciences
Network Theory and Communication
Consumer Psychology

VENDOR INSIGHTS

EVIDENCE USE IN DEVELOPMENT

Introduction to EdTech vendor research

Overview of vendors' decision-making journey

The following section is focused on the EdTech development process. The journey assesses the inputs (e.g., evidence, standards) and other criteria used to inform product development decisions made within EdTech companies. Qualitative interviews and surveys identified how leaders in various roles, from product managers to CEOs, identify and interpret market signals, as well as the needs of their user base. Key behavioral barriers and drivers to evidence use in development are presented with supporting data.

Survey and interview questions explored several themes, including the product life cycle, product features, motivations towards certifications and standards for products, data collection from users, and any challenges along the development journey. Interviews focused on mapping the journey via qualitative insights and surveys provided deeper validation of barriers and drivers to vendors' evidence use.

Description of sample

56 EdTech vendors were engaged in interviews and surveys. The vendors represented a diverse segment of the EdTech market, with participation from smaller and larger vendors. Approximately 25% of vendors were ISTE-aligned, with 70% indicating their products to be aligned with any EdTech standard or certification program.

* Small = <50 employees, Medium = 50 – 200 employees, Large = >200 employees. See Slide 111 in the Appendix for the full sample breakdown.

Reading Guide: EdTech product development

The journey map outlines **key stages** and **substages** of **decisions** in the EdTech product development journey, from initial product ideation to deployment and sales. For the journey, the **stages** are corroborated by **supporting evidence** and **mediators** identified from interviews and surveys with EdTech vendors.

Each **substage** is further expanded upon through barriers, drivers, and supporting data.

Decision Points

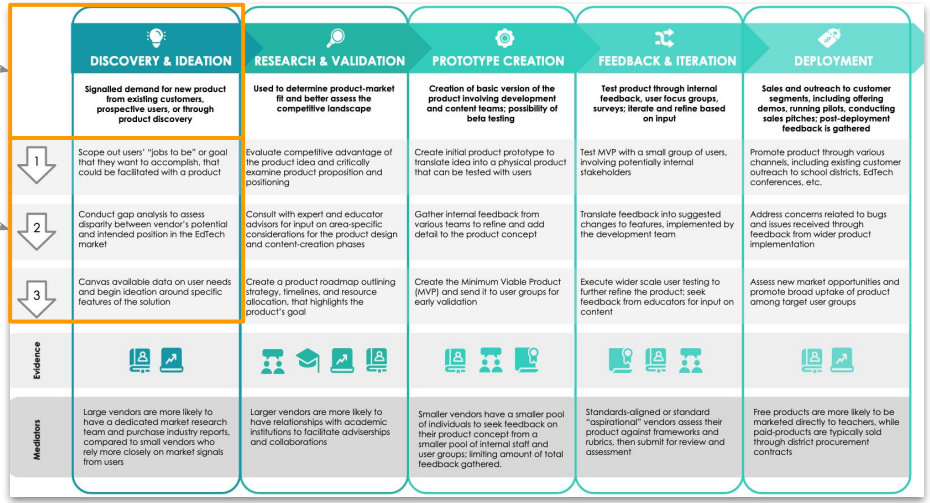
Stage
A key step that EdTech vendors would experience along the journey of bringing a product to market.

Substages
Specific decisions made or actions taken by the vendor that are associated with a given stage.

Stage Elements

Supporting evidence
Evidence that is engaged at a particular stage; these are denoted by icons and include market intelligence, expert advice and guidance, EdTech standards and certification, research from learning sciences, and user data.

Mediators
An additional factor that influences the EdTech journey. The mediators of focus are a) vendor size and b) alignment with standards or certification program.



Legend of evidence sources engaged during product development

The following table introduces the types of evidence that we identified vendors to most commonly rely on during the EdTech development process.

Evidence Engaged	Description
Market intelligence	Gathered through competitor analysis and through purchased industry reports (e.g., Simbia, SSIA, etc.)
Expert advisors and guidance	Experts, usually holding advanced degrees related to the field are engaged in providing guidance, can be internal or external to the vendor organization
EdTech standards and certification	Criteria and guidelines of quality indicators to which EdTech products can be intentionally developed and designed to align with
Research from learning sciences	Research from peer-reviewed studies, journals in related fields, potentially developed through Research Practice Partnerships (RPPs) with academic institutions
User data and insights	User insights gathered through internal user research (e.g., surveys and interviews) and/or externally-available demographic data (e.g., income data, school spending data)

Product Development Journey

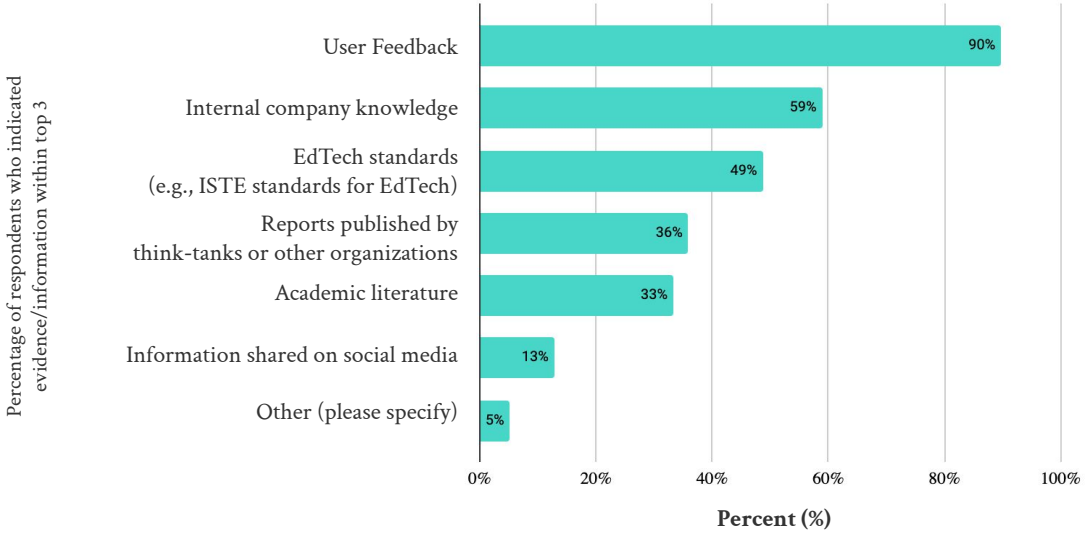
	DISCOVERY & IDEATION	RESEARCH & VALIDATION	PROTOTYPE CREATION	FEEDBACK & ITERATION	DEPLOYMENT
	Signalled demand for new product from existing customers, prospective users, or through product discovery	**Used to determine product-market fit and better assess the competitive landscape**	**Creation of basic version of the product involving development and content teams; possibility of beta testing**	**Test product through internal feedback, user focus groups, surveys; iterate and refine based on input**	**Sales and outreach to customer segments, including offering demos, running pilots, conducting sales pitches; post-deployment feedback is gathered**
1	Scope out users' "jobs to be" or goal that they want to accomplish, that could be facilitated with a product	Evaluate competitive advantage of the product idea and critically examine product proposition and positioning	Create initial product prototype to translate idea into a physical product that can be tested with users	Test MVP with a smaller group of users, involving potentially internal stakeholders	Promote product through various channels, including existing customer outreach to school districts, EdTech conferences, etc.
2	Conduct gap analysis to assess disparity between vendor's potential and intended position in the EdTech market	Consult with expert and educator advisors for input on area-specific considerations for the product design and content-creation phases	Gather internal feedback from various teams to refine and add detail to the product concept	Translate feedback into suggested changes to features, implemented by the development team	Address concerns related to bugs and issues received through feedback from wider product implementation
3	Canvas available data on user needs and begin ideation around specific features of the solution	Create a product roadmap outlining strategy, timelines, and resource allocation, that highlights the product's goal	Create the Minimum Viable Product (MVP) and send it to user groups for early validation	Execute wider scale user testing to further refine the product; seek feedback from educators for input on content	Assess new market opportunities and promote broad uptake of product among target user groups
Evidence					
Mediators	Larger vendors are more likely to have a dedicated market research team and purchase industry reports, compared to smaller vendors who rely more closely on market signals from users	Larger vendors are more likely to have relationships with academic institutions to facilitate adviserships and collaborations	Smaller vendors have a smaller pool of individuals to seek feedback on their product concept from a smaller pool of internal staff and user groups; limiting amount of total feedback gathered	Standards-aligned or standard "aspirational" vendors assess their product against frameworks and rubrics, then submit for review and assessment	Free products are more likely to be marketed directly to teachers, while paid-products are typically sold through district procurement contracts

Key Insights: User needs, standards and certifications, vendor size

	INSIGHT	SUPPORTING DATA	TAKEAWAY
1	**Customer needs are in constant flux,** preventing clear understanding of user goals, needs, or jobs to be done to inform decisions about product	Personalization and responding to diverse user needs ranked as the **top challenge** in developing products that support users. *"Our understanding of what users need is constantly evolving."*	Evidence creators could develop resources to assist vendors in integrating product features such as personalization and flexibility so that products on the market better respond to diverse user needs
2	**Information about how to earn a certification or align with standards is not readily accessible or easy to understand**, creating friction in the alignment process	**Only 29% of respondents agree** that there was enough information available about how to align dtech products with the standard or certification program.	Evidence creators should make the steps in the standard-alignment or certification process more salient and in an easily understandable format, such as through a "how-to" guide presented alongside online information about the standard/certification
3	**Larger vendors are more likely to be aware of and comply with EdTech standards and certifications**, relative to that of smaller vendors	**70% of larger vendors** indicated that their products comply with standards or certification programs **versus 50% of smaller vendors**. **40% of larger vendors** indicated awareness of the ISTE seal of alignment **versus 10% of smaller vendors**.	Evidence creators could leverage targeted programs for smaller vendors that provides them with adequate support and assurance of benefits during the certification process in order to justify the resource and time-investment required

Deep Dive: Vendors prefer user feedback and company knowledge to inform product decisions, with lower use of academic resources or reports

*"What types of information or evidence are most useful to inform decisions about developing an EdTech product?"**



> *We talk a lot to our team members who used to be teachers. In our company, you must have past teacher experience. Teachers are better at talking to other teachers and administrators.*
> — *Product Manager, Small size vendor*

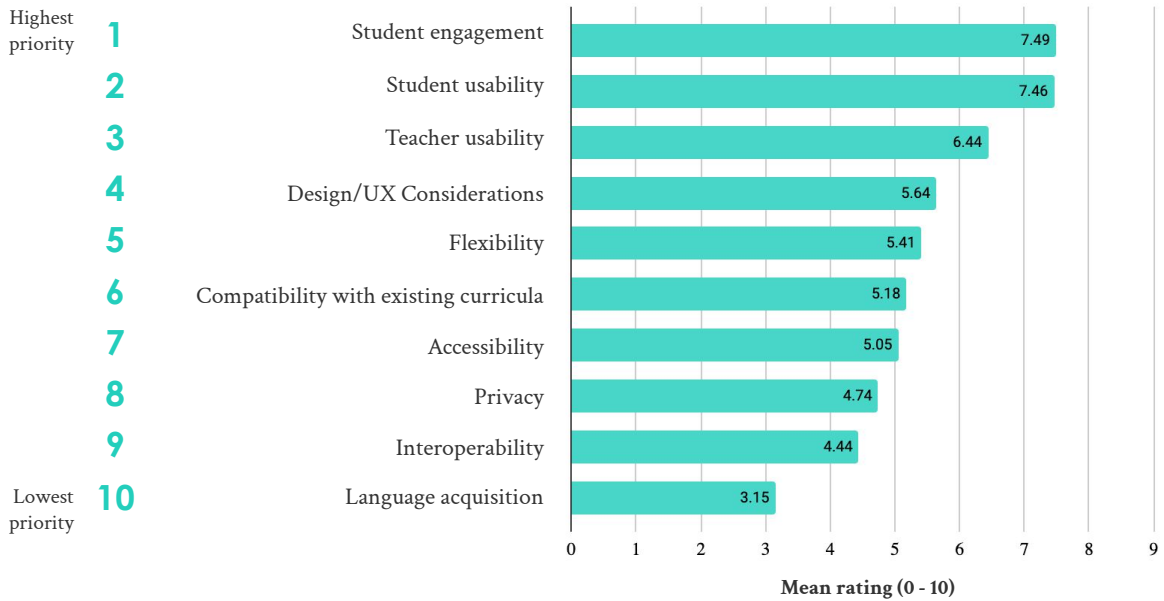
> *Internally, we have two curriculum experts on the team who are previous educators in ed design, pedagogy and the learning sciences. We lean on them for guidance on product development decisions to hear about learning concerns.*
> — *Product Manager, Small size vendor*

Key Takeaway Vendors perceive evidence from the learning sciences to lack the same value-add as accessible, contextually-specific evidence (user feedback, internal company knowledge); thus, these former and potentially more 'credible' inputs are comparatively deprioritized.

* Participants were prompted to choose top three sources of evidence.

Deep Dive: Vendors prioritize features that optimize usability and engagement, especially for students

"Which features does your company prioritize when developing a product?"



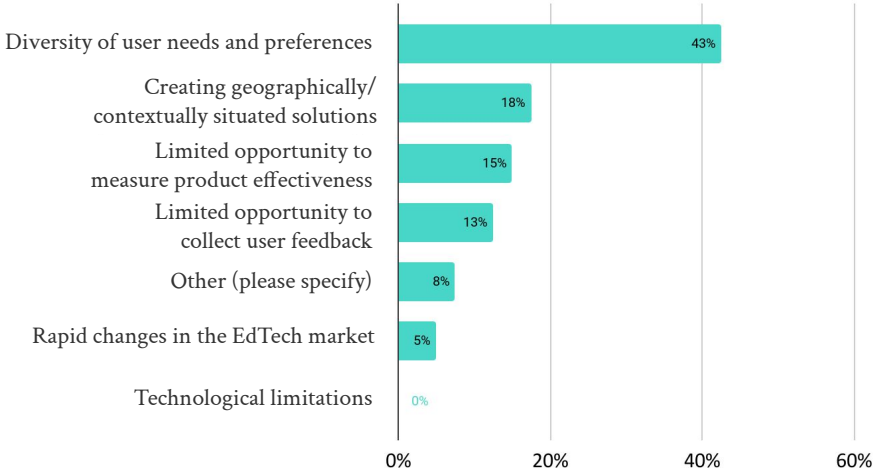
> *Teachers look number one at ease of use… Next is flexibility, so that they can have interactive activities, customizable choices, and can mix and match lessons or add their own resources they create.*
> *— Product Manager, Small size vendor*

> *From a student perspective, they want products that are fun and easy to use.*
> *— Product Manager, Small size vendor*

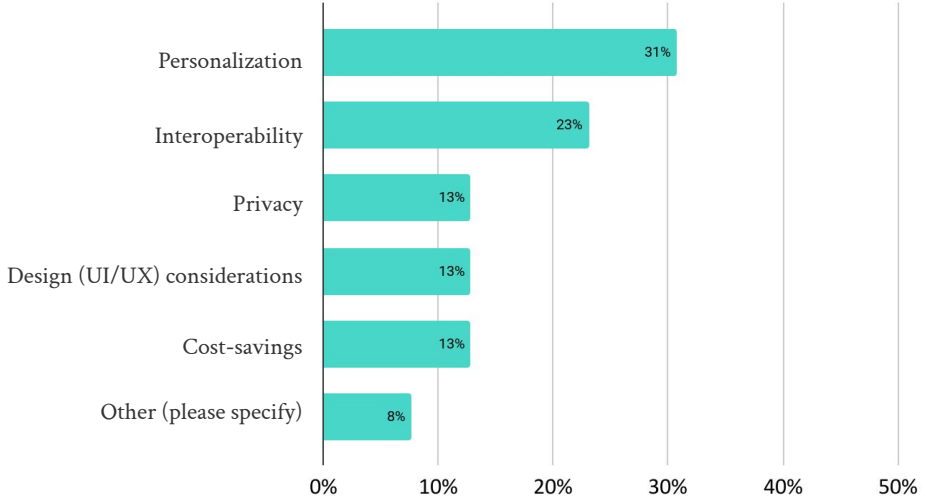
Key Takeaway Student engagement and usability are the most prioritized product features, while interoperability and language acquisition are the least prioritized.

Deep Dive: The greatest challenge for vendors is personalizing EdTech products in order to cater to evolving user needs and preferences

"Based on your experience, what is the greatest challenge to developing an EdTech product aligned with user needs and preferences?"

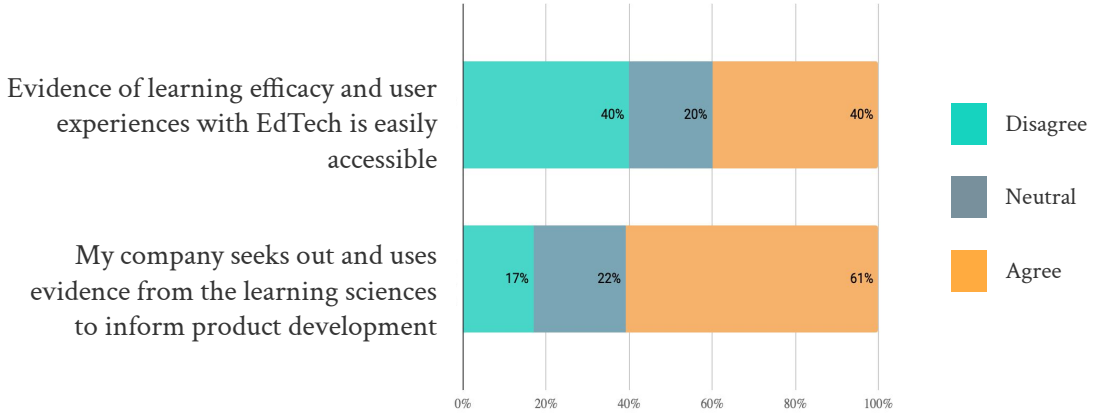


"Based on your experience, what is the greatest challenge to creating an EdTech product from a technological perspective?"



Key Takeaway Variability in user needs, goals, and demands in the EdTech market limits vendors' ability to develop solutions that are evergreen. Personalization is a key consideration for vendors hoping to remain competitive through consistent shifts in the market.

Deep Dive: Majority of vendors seek evidence from the learning sciences but have a hard time finding the information they're looking for



> *If you're working to bridge gap between academia and startups - you have to be flexible. People needs and requirements that are really different [when comparing academia and industry]. People in education tend to have rigid processes in everything and that doesn't translate well for the industry.*
>
> *— CEO, Medium size vendor*

> *We often hear people saying, districts are data rich but information poor. They have a tough time interpreting data. That's why data visualization is so key.*
>
> *— Vice President, Large size vendor*

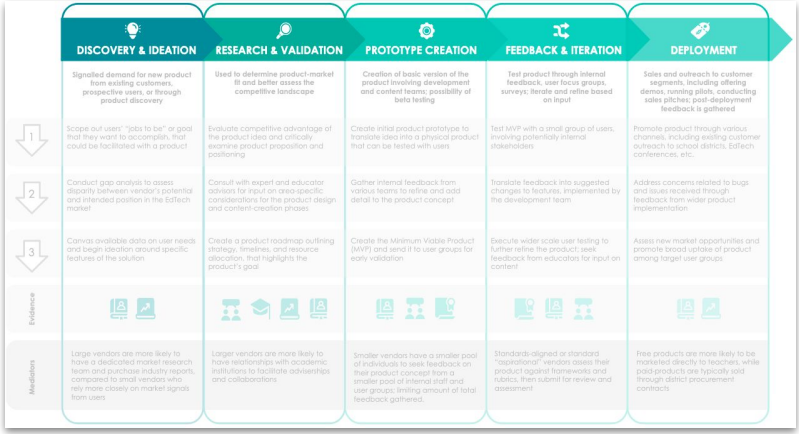
Key Takeaway While vendors are motivated to use evidence from the learning sciences, they face challenges or limited access to the information; this creates an opportunity for evidence creators to engage with this user group.

* Learning sciences was defined in the survey as an interdisciplinary field that studies how people learn.

We generated recommendations to support EdTech vendors, which are aligned to key barriers along the EdTech development journey stage

At each stage of the product development journey, barriers and drivers were analyzed. The key barriers to vendors engaging in evidence were further unpacked through a suggested recommendation description.

While the recommendations were tailored to ISTE, the overarching recommendation goals can be generalized to organizations working with EdTech vendors. References to the ISTE website and other sources are hyperlinked, as applicable.



Stage 3: Supporting evaluation during product development

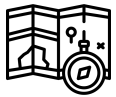
BARRIER	RECOMMENDATION	DESCRIPTION
Minimal clarity or reduced experience in assessing product features	**(3.1) Replicate evaluative resources**	Curate a vendor-based decision guide that parallels the one designed for purchasers to support a regular evaluation of edtech in production.
Perceived lack of process transparency on granting seals	**(3.2) Provide additional transparency on process**	On the Seal of Alignment webpage, provide additional clarity on specific characteristics that products should have to earn the seal, and/or the general process and timeline that ISTE takes to grant the seal.

DISCOVERY & IDEATION | RESEARCH & VALIDATION | PROTOTYPE CREATION | FEEDBACK & ITERATION | DEPLOYMENT

PURCHASER INSIGHTS

SEGMENTS & EVIDENCE USE

To understand decision-making and evidence use throughout EdTech and curriculum adoption, we identified friction points per purchaser segment



Mapping out actions and evidence use during the purchasing journey

Mapped by stakeholder groups, with a focus on demand issues for evidence of instructional quality

Capturing expectations on EdTech and curriculum quality, as well as professional learning

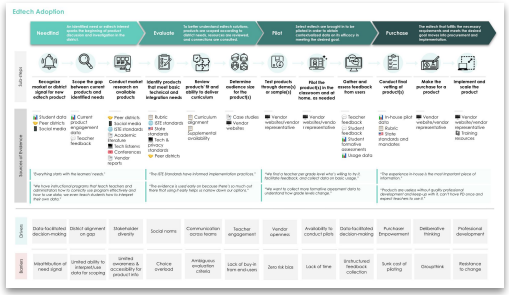
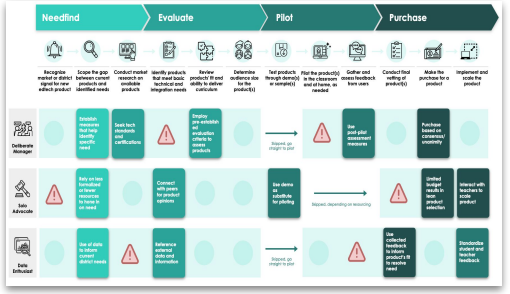
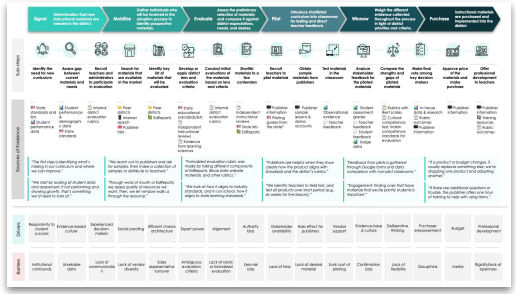
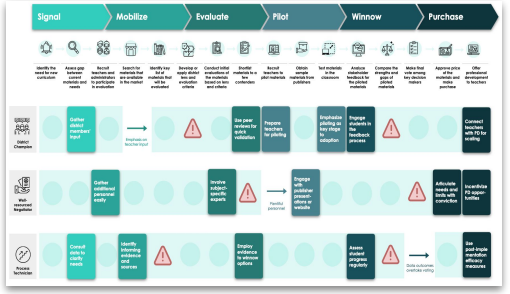
Related to a district's geographic, socioeconomic, or demographic context

Understanding biases and heuristics affecting each segment at key touchpoints

Revealed influences on preferences towards reliable indicators and HQIM versus lower-quality instructional materials

This investigation allowed for recommendations that targeted **increased** and **intentional** evidence use among key decision-makers, at key purchasing touchpoints

We mapped out exhaustive purchasing journeys for EdTech and curriculum, as well as those of individual purchaser segments

	EXHAUSTIVE JOURNEYS*	SEGMENTS	SEGMENT-SPECIFIC JOURNEYS
EdTech		Deliberate Manager Solo Advocate Data Enthusiast	
Core Curriculum		District Champion Well-resourced Negotiator Process Technician	

* Exhaustive, unsegmented EdTech and core curriculum purchasing journeys available in Appendix.

Reading Guide: Segmented purchaser journey maps

The EdTech and curriculum purchasing journey maps outline **key touchpoints** and **substeps** of **decision-making** in the journey, from initial scoping to purchase and scaling. Importantly, the maps capture the **variability in decision-making among the emergent segments** at particular substeps.

The segmented maps provide deep dives into key barriers most relevant to each segment.

Decision Points

Touchpoint

A key step that purchasers experience along the journey of bringing instructional materials to the district.

Substep

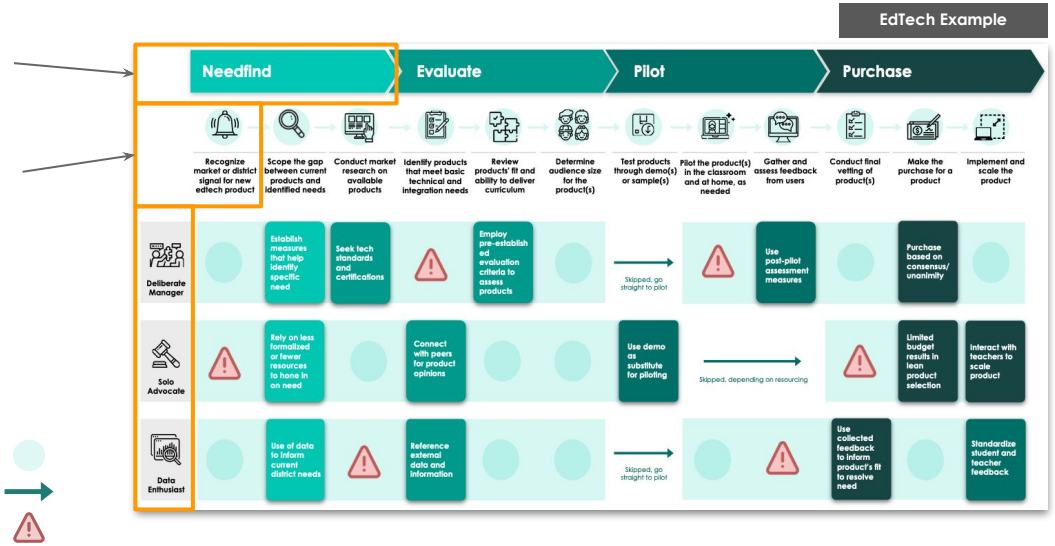
Specific decisions made or actions taken by purchasers that are associated with a given touchpoint.

Segment Specificities

Differentiating segments

The different decisions made at a particular substep, per segment:

- Circles represent no notable deviation from the substep
- Arrows represent skipped steps
- Warning signs represent barriers



PURCHASER INSIGHTS

EDTECH

Introduction to district EdTech purchaser research

Overview of EdTech purchasers' decision-making journey

The following section is focused on the EdTech purchasing journey. The journeys were informed by in-depth process-mapping with school district leaders, with an emphasis on when and how evidence and other inputs, are engaged in decision-making. Key behavioral barriers and drivers to evidence use in purchasing are presented with supporting data.

Survey and interview questions explored several themes, including the adoption steps for the interviewee's district, desired product features and/or certifications, resources or organizations referenced to inform decisions, awareness and application of the ISTE standards and seal of alignment.

Description of sample

259 EdTech purchasers were engaged in interviews and surveys, representing a diverse range of EdTech purchasing roles including Chief Technology Officers, Chief Information Officers, Technology Directors, and I.T. specialists. Among those surveyed, a sizeable proportion of the sample derives from smaller districts (<5000 students), with a quarter of respondents representing medium-large districts (>5000 students). About a third of districts represent priority districts, while 41% self-identify as aligning with ISTE standards for education technology.

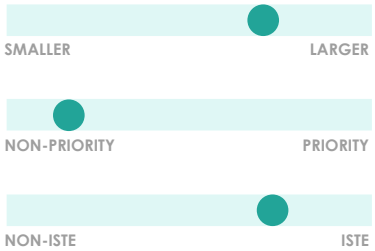
See Slide 131 in the Appendix for the full sample breakdown.

Key Insight: Three EdTech segments demonstrated predictability

Deliberate Manager

Deliberate Managers employ standardized steps for procurement using pre-established criteria to assess products. They are highly intentional in their process, and may involve various stakeholders.

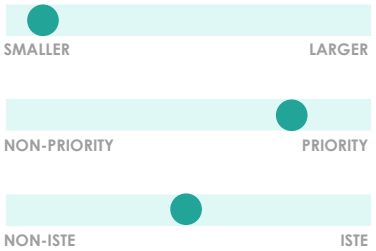
Given the rigidity of the process, they may be less responsive to contextual changes or less likely to consider novel products that don't fit pre-established criteria.



Solo Advocate

Solo Advocates spearhead EdTech purchasing while relying on limited resources and expertise to ensure alignment with the district's vision.

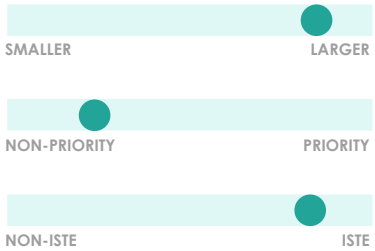
However, Solo Advocates may face limited resources, resulting in insufficient evidence engagement as well as skipped or reduced steps.



Data Enthusiast

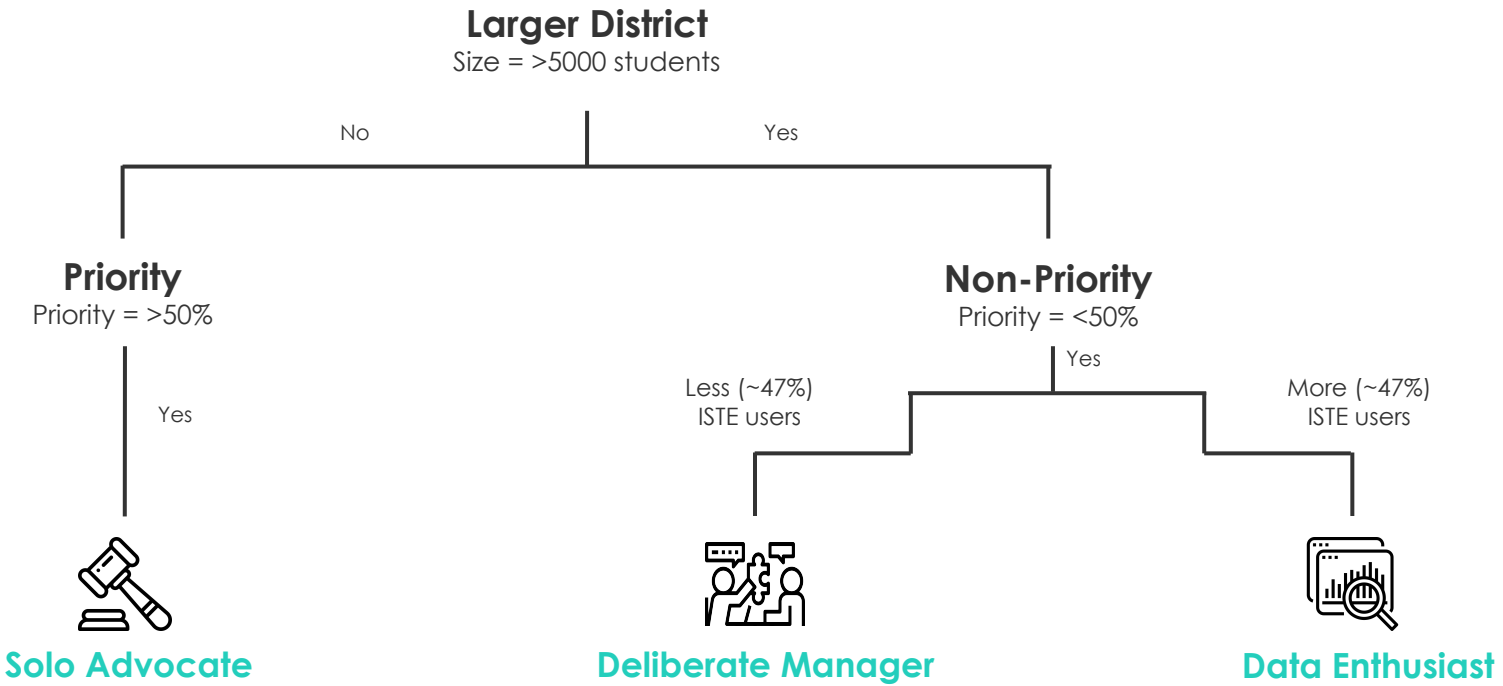
Data Enthusiasts are determined to leverage external and internal data to inform decision-making while optimizing for culturally relevant solutions.

However, Enthusiasts may run into obstacles when they cannot obtain the desired external evidence, or may have trouble with successfully translating available evidence into their local context.



"Smaller" and "larger" refers to district size, or the total student enrollment in the respondent's district.

Deep Dive: The EdTech segments can be identified based on relative differences in district size, priority classification, and ISTE use



Deep Dive: Segments revealed unique preferences for evidence sources

EdTech Segment	Preferred sources of evidence	Why is the source preferred?	Greatest barriers to evidence use
 **Deliberate Manager**	Information about standards and certifications via websites	Standards provide a systematic and replicable approach to product validation	Sunk costs, related to piloting
 **Solo Advocate**	Peer reviews Conferences and forums	Peer reviews are easy to access relative to other sources of information	Minimal end user feedback
 **Data Enthusiast**	Internal formative and summative assessments External sources such as academic literature and vendor reports	Data provides an objective metric on which to base subsequent decisions	Accessibility and availability of evidence

EdTech Purchasing: All Segments

Needfind	Evaluate	Pilot	Purchase
An identified need or EdTech interest sparks the beginning of product discussion and investigation in the district.	To better understand EdTech solutions, products are scoped according to district needs, resources are reviewed, and connections are consulted.	Select EdTech is brought in to be piloted in order to obtain contextualized data on its efficacy in meeting the desired goal.	The EdTech that fulfills the necessary requirements and meets the desired goal moves into procurement and implementation.

Recognize market or district signal for new EdTech product	Scope the gap between current products and identified needs	Conduct market research on available products	Identify products that meet basic technical and integration needs	Review products' fit and ability to deliver curriculum	Determine audience size for the product(s)	Test products through demo(s) or sample(s)	Pilot the product(s) in the classroom and at home, as needed	Gather and assess feedback from users	Conduct final vetting of product(s)	Purchase product(s)	Implement and scale the product(s)

Deliberate Manager	Establish measures that help identify specific need	Seek tech standards and certifications		Employ pre-established evaluation criteria to assess products		Skipped, go straight to pilot		Use post-pilot assessment measures		Purchase based on consensus/ unanimity	
Solo Advocate	Rely on less formalized or fewer resources to hone in on need		Connect with peers for product opinions		Use demo as substitute for piloting		Skipped, depending on resourcing			Limited budget results in lean product selection	Interact with teachers to scale product
Data Enthusiast	Use data to inform current district needs		Reference external data and information			Skipped, go straight to pilot			Use collected feedback to inform product's fit to resolve need		Standardize student and teacher feedback

EdTech Purchasing: Deliberate Manager (I/II)

Recognize market or district signal for new EdTech product	Scope the gap between current products and identified needs	Conduct market research on available products	Identify products that meet basic technical and integration needs	Review products' fit and ability to deliver curriculum	Determine audience size for the product(s)	Test products through demo(s) or sample(s)	Pilot the product(s) in the classroom and at home, as needed	Gather and assess feedback from users	Conduct final vetting of product(s)	Purchase product(s)	Implement and scale the product(s)
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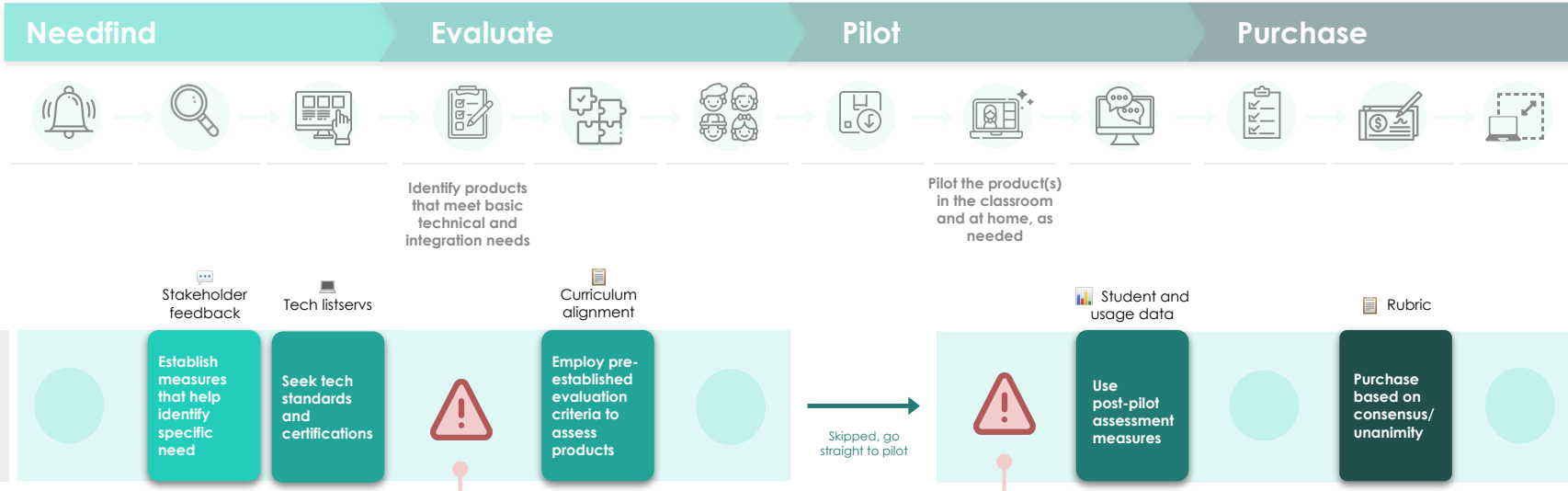
Data Enthusiast	Use data to inform current district needs		Reference external data and information		Skipped, go straight to pilot		Use collected feedback to inform product's fit to resolve need			Standardize student and teacher feedback	

EdTech Purchasing: Deliberate Manager (II/II)



Reliance on predetermined criteria generates rigidity, as it confines the selection of prospective products that would be able to address the scoped need. Further, criteria for high-quality EdTech is non-standardized and in flux as technology changes and evidence is updated.

*Larger districts are **significantly more likely to agree** that their district establishes predetermined evaluation criteria before reviewing EdTech products compared to smaller districts ($p < .01$).*

*ISTE districts are **significantly more likely to agree** that their district establishes predetermined evaluation criteria before reviewing EdTech products than non-ISTE districts ($p < .001$).*

"Technology changes so fast so we struggled to find a rubric that adapts as quickly."

"We found that every product almost needs a different rubric."

Strict adherence to process makes change unlikely, even if the change would result in a purchase that is better suited to needs; it can reinforce the sense of sunk cost since resources were already dedicated to a district's standardized way.

***61% of larger districts** agree that piloting typically leads to a purchase, compared to 48% of smaller districts.*

***87% of non-priority districts** agree that piloting typically leads to a purchase, compared to 81% of priority districts.*

"If I had a critique of the piloting process, it's almost as if we use pilot as this is the deal, this is going to be the one."

"There's the sunk cost of putting so much time into the process."

EdTech Purchasing: Solo Advocate (I/II)

Needfind

Evaluate

Pilot

Purchase

Recognize market or district signal for new EdTech product

Scope the gap between current products and identified needs

Conduct market research on available products

Identify products that meet basic technical and integration needs

Review products' fit and ability to deliver curriculum

Determine audience size for the product(s)

Test products through demo(s) or sample(s)

Pilot the product(s) in the classroom and at home, as needed

Gather and assess feedback from users

Conduct final vetting of product(s)

Purchase product(s)

Implement and scale the product(s)

Deliberate Manager

Establish measures that help identify specific need

Seek tech standards and certifications

Employ pre-established evaluation criteria to assess products

Skipped, go straight to pilot

Use post-pilot assessment measures

Purchase based on consensus/ unanimity

Solo Advocate

Rely on less formalized or fewer resources to hone in on need

Connect with peers for product opinions

Use demo as substitute for piloting

Skipped, depending on resourcing

Limited budget results in lean product selection

Interact with teachers to scale product

Data Enthusiast

Use data to inform current district needs

Reference external data and information

Skipped, go straight to pilot

Use collected feedback to inform product's fit to resolve need

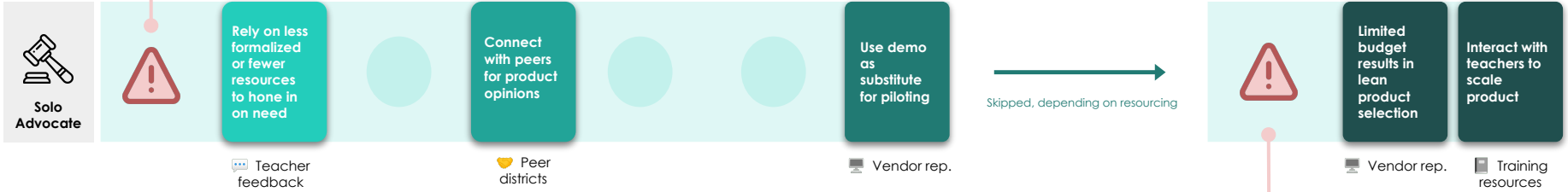
Standardize student and teacher feedback

EdTech Purchasing: Solo Advocate (II/II)

Fewer stakeholders in the scoping process limits a comprehensive assessment of district's needs; this lack of perspectives can lead to missing alternative signals.

*The higher a district's percentage of priority students in the population, the **less likely** they were to agree that their district should consult external data or information (p <.05).*

"It's just me for the EdTech selection process; I work with the academic director who plays a role in curriculum adoption to make sure that students can access the virtual classroom easily and without issues."



If a demo or pilot is only managed by the main stakeholder(s), this can potentially expediting the actual purchase due to limited variety of product feedback, user inputs, and in-house testing.

"I do all the initial contact and initial demos to get a feel of the product to see if it will work with the district and has necessary components needed."

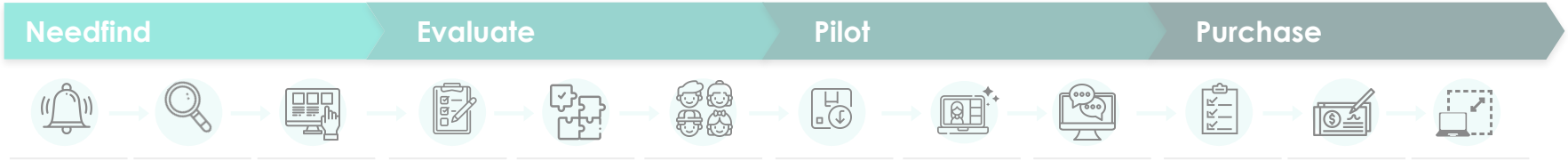
***One in two** smaller districts agreed that a pilot usually leads to a purchase of that same product.*

EdTech Purchasing: Data Enthusiast (I/II)

Needfind	Evaluate	Pilot	Purchase

	Recognize market or district signal for new EdTech product	Scope the gap between current products and identified needs	Conduct market research on available products	Identify products that meet basic technical and integration needs	Review products' fit and ability to deliver curriculum	Determine audience size for the product(s)	Test products through demo(s) or sample(s)	Pilot the product(s) in the classroom and at home, as needed	Gather and assess feedback from users	Conduct final vetting of product(s)	Purchase product(s)	Implement and scale the product(s)
Deliberate Manager		Establish measures that help identify specific need	Seek tech standards and certifications		Employ pre-established evaluation criteria to assess products		Skipped, go straight to pilot		Use post-pilot assessment measures		Purchase based on consensus/ unanimity	
Solo Advocate		Rely on less formalized or fewer resources to hone in on need		Connect with peers for product opinions		Use demo as substitute for piloting	Skipped, depending on resourcing			Limited budget results in lean product selection	Interact with teachers to scale product	
Data Enthusiast		**Use data to inform current district needs**		**Reference external data and information**			Skipped, go straight to pilot		**Use collected feedback to inform product's fit to resolve need**		**Standardize student and teacher feedback**	

EdTech Purchasing: Data Enthusiast (II/II)



Low awareness and accessibility of external evidence prompts decision-makers to rely on evidence that *is* easily accessible, such as internal district data or peer reviews, biasing their judgment towards local data.

"Not everyone knows how to use data, or where to find it — there's a learning curve involved."

"We also don't know what exists and sometimes, don't make the effort to find the research needed."

***54%** of EdTech purchasers find academic literature the most difficult to access, relative to **14%** for product reviews.*

*ISTE and non-ISTE districts were equally likely to select limited awareness as **a top challenge** in utilizing evidence or data.*

Difficulty in reconciling evidence of efficacy with user preferences makes it challenging to balance and apply the most relevant data to product selection; this is especially true when considering both students and teachers, amidst additional sources of evidence.

*Only **56%** of ISTE districts agreed that evidence or data is easy to understand or apply.*

*Priority and non-priority districts were equally likely to **disagree** that the evidence or data available on EdTech products is applicable to their district's context.*

"The thing about student feedback is that sometimes we have to take them with a grain of salt, because students don't always know what they're talking about."

Data Enthusiast

Use of data to inform current district needs

Current product engagement

Reference external data and information

ISTE standards

Skipped, go straight to pilot

Use collected feedback to inform product's fit to resolve need

In-house pilot data

Standardize student and teacher feedback

Data-specific resources

PURCHASER INSIGHTS

CORE CURRICULUM

Introduction to district Core Curriculum purchaser research

Overview of curriculum purchasers' decision-making journey

The following section is focused on the core curriculum purchasing journey. The journeys were informed by in-depth process mapping with school district leaders, with an emphasis on when and how evidence and other inputs are engaged in decision-making. Key behavioral barriers and drivers to evidence use in purchasing are presented with supporting data.

Hundreds of K-12 school district leaders were recruited through various channels for qualitative interviews and quantitative surveys. Our aim was to capture a diverse spectrum of districts and states across the United States, with a focus on "priority districts" — large, low-income districts with a higher % of ELLs and Black/Hispanic students.

Survey and interview questions explored several themes, including the adoption steps for the interviewee's district, desired curriculum features, resources or organizations referenced to inform decisions, usage of EdReports reviews, and any challenges along the adoption journey.

Description of sample

352 core curriculum purchasers were engaged in interviews and surveys, representing a diverse range of curriculum purchasing roles including Chief Academic Officers, Instructional Leaders, Curriculum Directors, and Curriculum Specialists. Among those surveyed, a sizeable proportion of the sample derives from smaller districts (<5000 students), with about a quarter of respondents representing medium–large districts (>5000 students). About a third of districts represent priority districts, while 61% self-identify as using EdReports during curriculum selection.

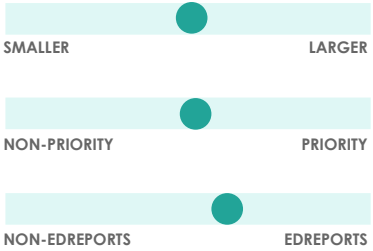
See Slide 133 in the Appendix for the full sample breakdown.

Key Insight: Three Core Curriculum segments demonstrated predictability

District Champion

District Champions value and use student and teacher voices to identify district-specific needs. The piloting stage is critical to garnering this feedback. In-house data is a key piece of final adoption decisions, as well as initial scoping.

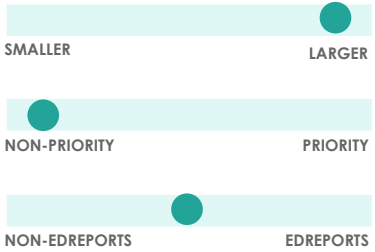
However, the focus on district data may result in Champions missing other structured criteria to inform their evaluative lens and feedback interpretation.



Well-resourced Negotiator

Well-resourced Negotiators wield a high degree of market power, allowing them to get to what they need and negotiate prices with little friction.

Notably, Negotiators may face more challenges with balancing the weighting of resources, in addition to group-relevant biases.



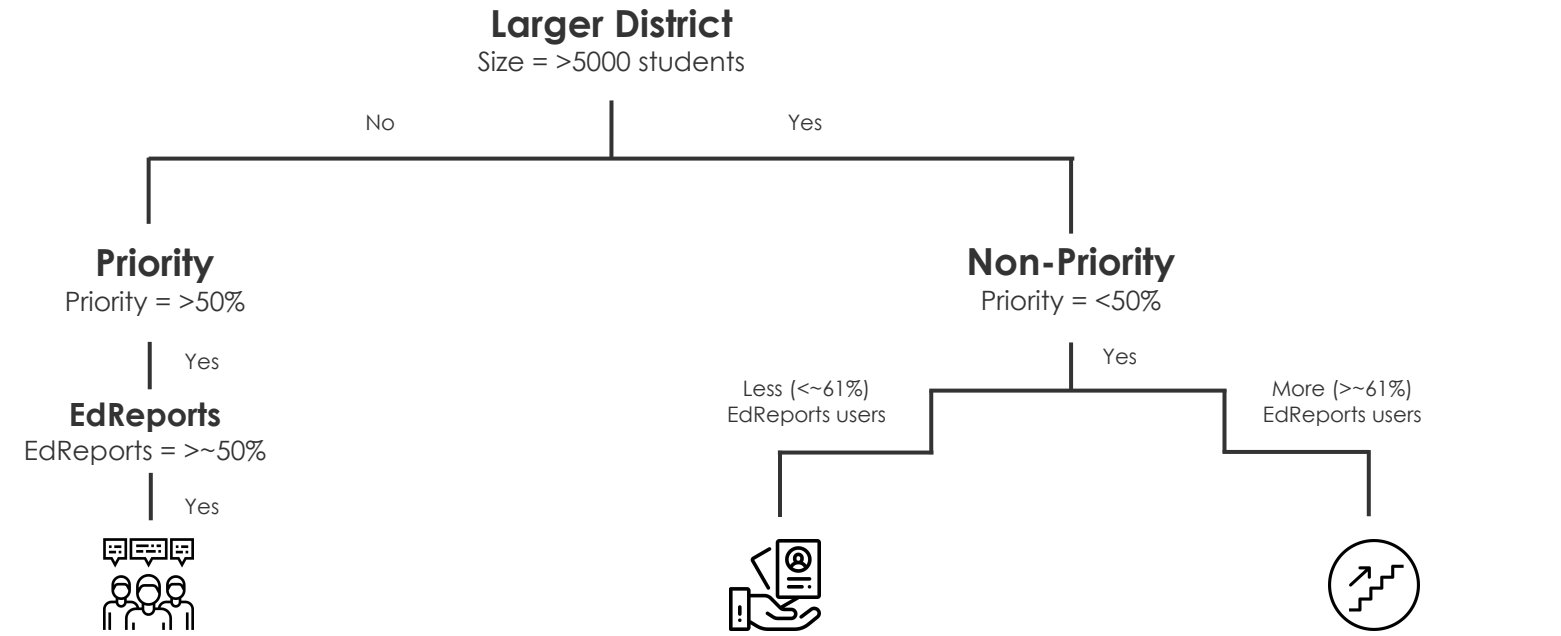
Process Technician

Process Technicians are confident in their ability to identify evidence sources and are interested in capturing the efficacy of adoptions upon implementation. Technicians try to stay in touch with their end users from procurement through to implementation.

However, their experience may spur overconfidence and potential resistance to new sources.

"Smaller" and "larger" refers to district size, or the total student enrollment in the respondent's district.

Deep Dive: The curriculum segments can be identified based on relative differences in district size, priority classification, and EdReports use



Deep Dive: Segments revealed unique preferences for evidence sources

Curriculum Segment	Preferred sources of evidence	Why is the source preferred?	Greatest barriers to evidence use
 **District Champion**	User feedback from focus groups and surveys Conferences and forums	Feedback from users provides the most contextually relevant data	Lack of structured or objective evaluative lens
 **Well-resourced Negotiator**	Vendor websites	Websites are the simplest and fastest route of accessing information about products and prices	Balancing the weighting of multiple sources
 **Process Technician**	District-standardized rubrics Online rubrics and instructional material reviews	Rubrics and reviews provide objective criteria from a trustworthy, unbiased source	Overconfidence and potential resistance to new sources

Curriculum Purchasing: All Segments

Identify the need for new curriculum	Assess gap between current materials and needs	Recruit teachers and administrators to participate in evaluation	Search for materials that are available in the market	Identify key list of materials that will be evaluated	Develop or apply district lens and evaluation criteria	Conduct initial evaluations of the materials based on lens and criteria	Shortlist materials to a few contenders	Recruit teachers to pilot materials	Obtain sample materials from publishers	Test materials in the classroom	Analyze stakeholder feedback for the piloted materials	Compare the strengths and gaps of piloted materials	Make final vote among key decision-makers	Approve price of the materials and make purchase	Offer professional development to teachers

District Champion

Gather district members' input

Emphasis on teacher input

Use peer reviews for quick validation

Prepare teachers for piloting

Emphasize piloting as key stage to adoption

Engage students in the feedback process

Connect teachers with PD for scaling

Well-resourced Negotiator

Gather additional personnel easily

Involve subject-specific experts

Plentiful personnel

Engage with publisher present-ations or websites

Negotiate terms with publisher

Incentivize PD oppor-tunities

Process Technician

Consult data to clarify needs

Identify informing evidence and sources

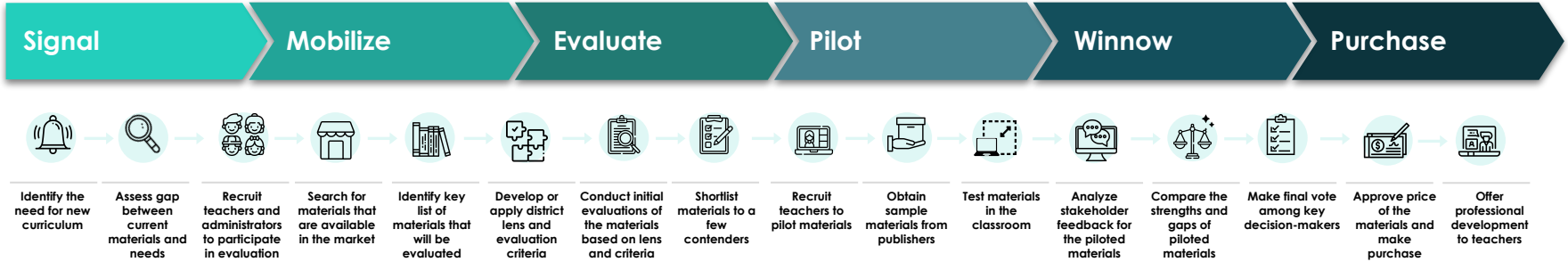
Employ evidence to winnow options

Assess student progress regularly

Data outcomes overtake voting

Use post-imple mentation efficacy measures

Curriculum Purchasing: District Champion (I/II)



Curriculum Purchasing: District Champion (II/II)

Lack of available feedback from external or objective sources may constrain the evaluative lens applied, which limits the utility of objective variables as outlined in other external sources and information.

71% of smaller districts *agreed there is strong alignment on what constitutes "high quality," compared to* ***81%*** *of larger districts.*

"Rubrics used with Likert scale are rated in the following categories: Organizational layout, Content, Assessments, Technology."

"Told them [EdReports] is where we start from as we are a smaller district and don't have time to develop our own rubric."

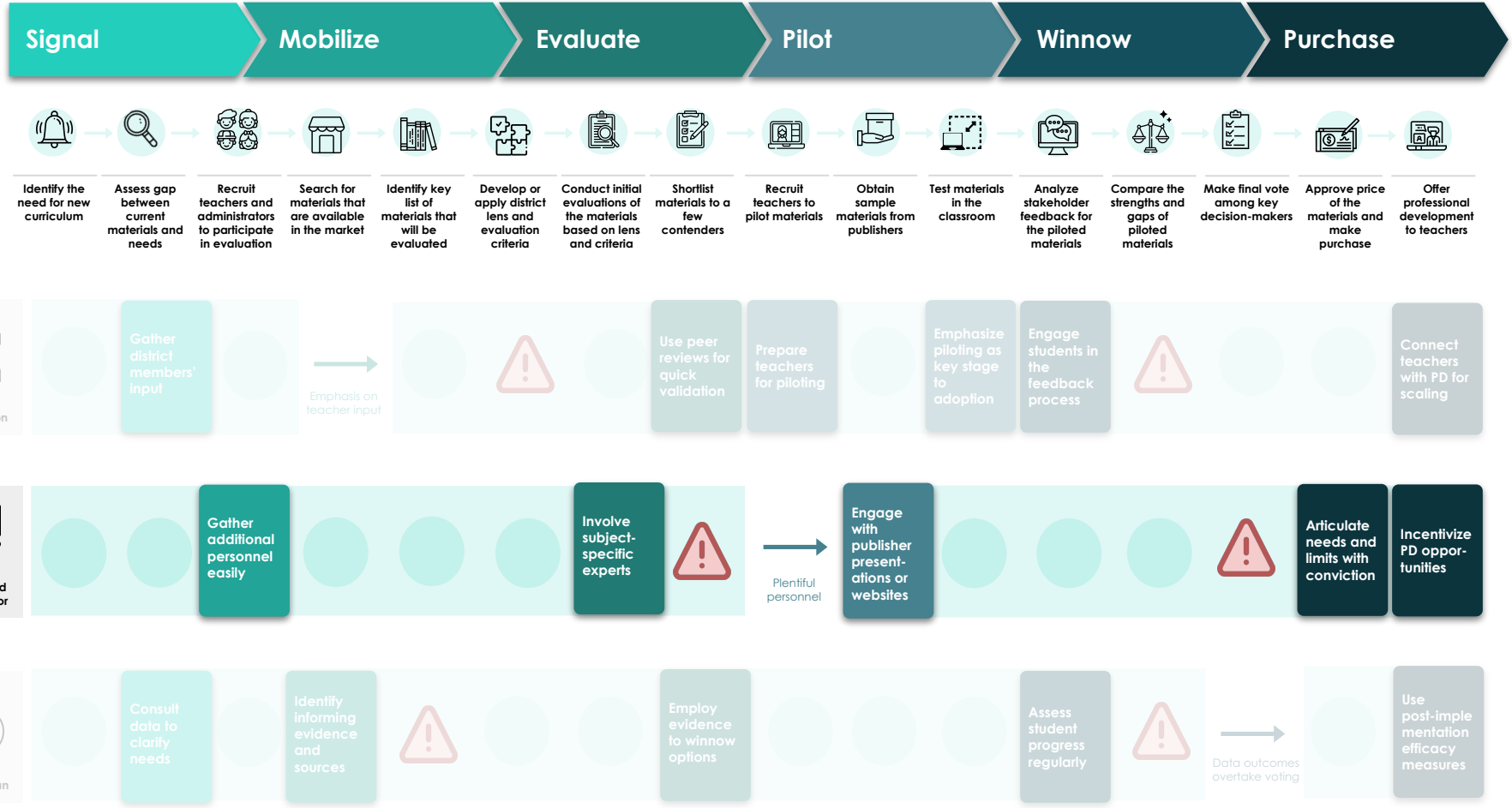
Lack of structure or process to capture and understand feedback can render the student and teacher engagement moot; without an objective and structured method to understand data, the final purchasing decision is prone to the subjective sway of anecdotal feedback.

55% of smaller districts *agreed their district has a process in place to assess the efficacy/effectiveness of the new core curriculum upon implementation, compared to* ***65%*** *of larger districts.*

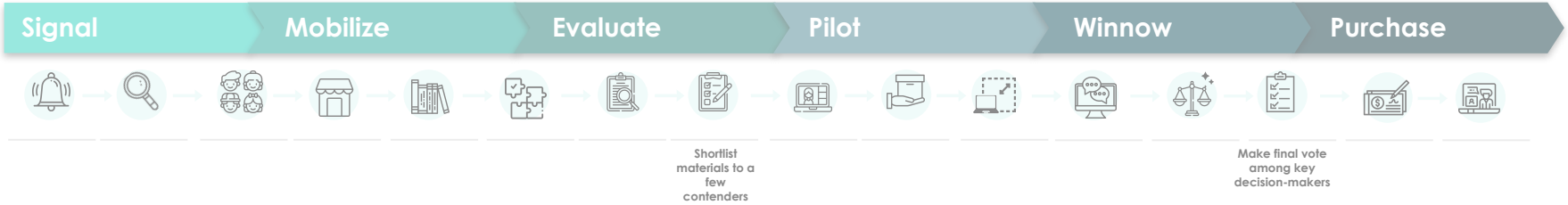
"Training teachers to understand their data and using it to inform instruction is an ongoing process."

"Teachers try out lessons and get [verbal] feedback from students."

Curriculum Purchasing: Well-resourced Negotiator (I/II)



Curriculum Purchasing: Well-resourced Negotiator (II/II)



Over-prioritization of experts' opinions can jeopardize user buy-in; teachers may feel distrust on their knowledge and expertise on the district's specific needs.

"We more rely on experts in the field — contractors or consultants — who have experience in different content areas."

"We probably have more funds and personnel; content experts help as they are more specialized."

Limited trust in the reliability of available information/evidence *cited as the* ***biggest challenge*** *to using data or evidence among EdReports districts.*

Groupthink can be exacerbated by many voices in a hierarchical setting, and the pressure to agree can confound the priority of adopting contextually relevant, effective materials.

"It takes longer, more voices to parse through."

"It is very political in a larger organization so it's not always what the best curriculum for students that gets adopted, sometimes you have to decide if you go with the majority voice of the adoption team or what's best for students."

Larger and smaller districts reported similar levels of agreement (~85%) in their confidence in their district's ability to identify the appropriate evidence and sources to inform core curriculum selection.

Curriculum Purchasing: Process Technician (I/II)

Identify the need for new curriculum	Assess gap between current materials and needs	Recruit teachers and administrators to participate in evaluation	Search for materials that are available in the market	Identify key list of materials that will be evaluated	Develop or apply district lens and evaluation criteria	Conduct initial evaluations of the materials based on lens and criteria	Shortlist materials to a few contenders	Recruit teachers to pilot materials	Obtain sample materials from publishers	Test materials in the classroom	Analyze stakeholder feedback for the piloted materials	Compare the strengths and gaps of piloted materials	Make final vote among key decision-makers	Approve price of the materials and make purchase	Offer professional development to teachers

District Champion

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- Connect teachers with PD for scaling

Well-resourced Negotiator

- Gather additional personnel easily
- Involve subject-specific experts
- Plentiful personnel
- Engage with publisher present-ations or websites
- Articulate needs and limits with conviction
- Incentivize PD oppor-tunities

Process Technician

- Consult data to clarify needs
- Identify informing evidence and sources
- Employ evidence to winnow options
- Assess student progress regularly
- Data outcomes overtake voting
- Use post-imple mentation efficacy measures

Curriculum Purchasing: Process Technician (II/II)

Overconfidence in engaging with familiar sources and stakeholders' inputs can lead to overlooking to alternative pieces of evidence or sources that are a better fit to address the adoption need.

*EdReports districts were more **likely to agree that it's usually clear from the beginning** what the best curriculum is relative to non-EdReports districts.*

"Heavy engagement comes from teachers, course teams, department chairs, principals… we're trying to figure out how to engage student voices."

"I am much more interested in social data than academic data."

Limited variety of the type of data used inhibits a holistic assessment of true strengths and efficacy, making it difficult to exhaustively compare and validate products according to evidence throughout procurement.

*The **2nd most prominent challenge** was limited awareness of the types of evidence available among EdReports districts.*

"Unless we are in the beginning of a process, we don't use dynamic information."

"Academic articles are used early on in the curriculum adoption process, but data is used throughout in case a change needs to be made."

EVIDENCE UPTAKE FRAMEWORK

The Evidence Uptake Framework builds from the overarching insights identified among vendors and purchasers

This framework is a behavioral model to **classify and generate strategies** aligned with user preferences and actual patterns of behavior.

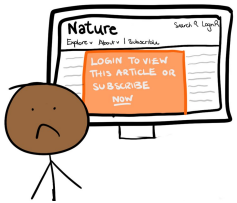
The purpose of this framework is to provide a foundation for **strategies that promote greater and more intentional evidence use** (Slide 71).

We identified five high-activation drivers to promote evidence use in district purchasing contexts that are codified in the framework

Availability

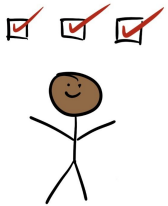
Information should be easy to find

Accessibility



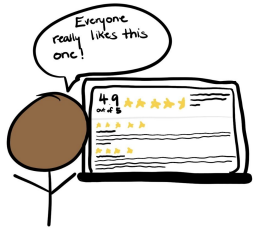
Information should be frictionless to obtain

Actionability



Information should be presented with implementation in mind

Desirability



Information should be framed as a useful and rewarding source to leverage

Pragmatism

Information should articulate real user experiences and outcomes

The foundation for creating strategies that promote evidence use

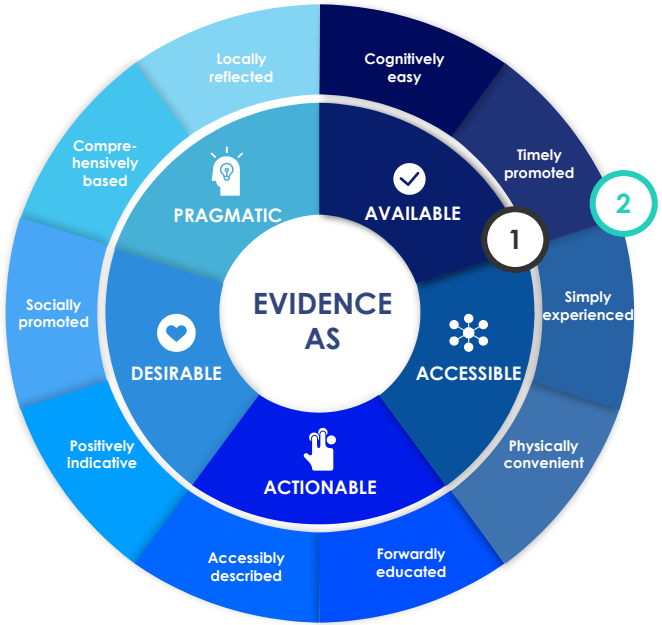
Evidence Uptake Framework Deep Dive: Driver

1

Driver

Based on primary and secondary research, a Driver is a principle designed to overcome behavioral barriers.

Evidence Uptake Framework Deep Dive: Change Principle



1 **Driver**

2 **Change Principle**

Change Principles are subcategories of the Driver focused on introducing specific psychological elements of the Driver.

Evidence Uptake Framework Deep Dive: Behavior Change Technique

1 **Driver**

2 **Change Principle**

3 **Behavior Change Technique (BCT)**

Behavior Change Techniques are more concrete versions of the Change Principles, applied to the context of boosting evidence use by district leaders.

Evidence Uptake Framework Deep Dive: Recommendation

1. **Driver**
2. **Change Principle**
3. **BCT**

4. **Recommendation** (i.e., intervention)

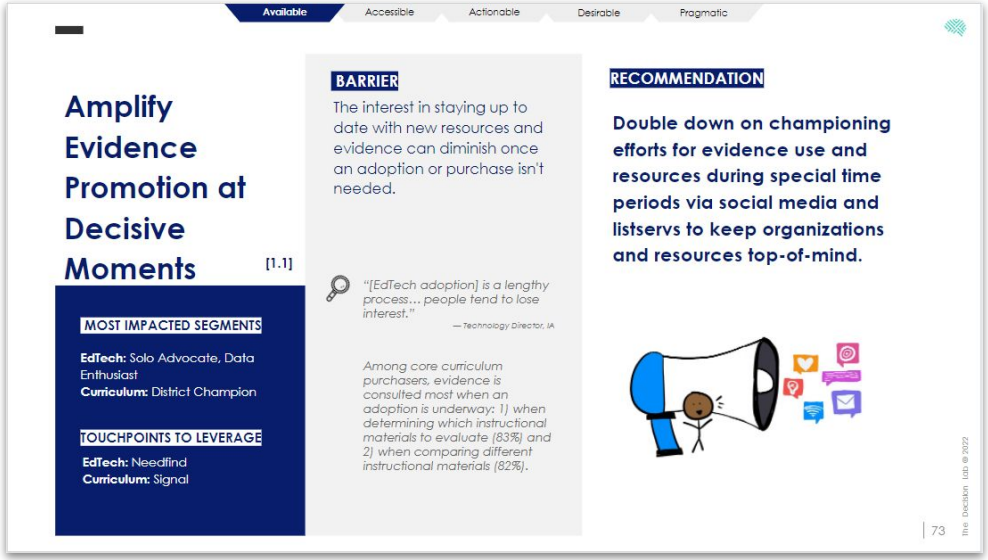
Recommendations are concrete steps, grounded in research, to challenge assumptions, change physical structures, or shift preferences with the aim of improving evidence use.

Example: Decrease friction associated with accessing evidence by creating filters to winnow options easily.

RECOMMENDATIONS

Reading Guide: Recommendations for evidence engagement

The recommendations aim to boost evidence engagement and are **intended to be widely applicable to all organizations and groups who create evidence and/or resources**. The foundation for the recommendations lies at the core of the Evidence Uptake Framework: the high-activation Drivers, which were stratified through data, literature, and behavior change frameworks.



Segments & Touchpoints

The user/district segment that would be most impacted by the recommendation; note that all segments are expected to be successfully impacted to some degree.

The touchpoint along the purchasing journey when the recommendation would be deployed.

Barrier

A key friction point faced by consumers of the evidence and/or resource, substantiated by primary data.

Recommendation

A behaviorally grounded strategy, aligned to a respective Driver, that aims to alleviate the identified friction.

Amplify Evidence Promotion at Decisive Moments [1.1]

MOST IMPACTED SEGMENTS

EdTech: Solo Advocate, Data Enthusiast
Curriculum: District Champion

TOUCHPOINTS TO LEVERAGE

EdTech: Needfind
Curriculum: Signal

BARRIER

The interest in staying up to date with new resources and evidence can diminish once an adoption or purchase isn't needed.

"[EdTech adoption] is a lengthy process… people tend to lose interest."

— Technology Director, IA

Among core curriculum purchasers, evidence is consulted most when an adoption is underway: 1) when determining which instructional materials to evaluate (83%) and 2) when comparing different instructional materials (82%).

RECOMMENDATION

Double down on championing efforts for evidence use and resources during special time periods via social media and listservs to keep organizations and resources top-of-mind.

Collaborate with Partners During Key Moments

[1.2]

MOST IMPACTED SEGMENTS

EdTech: Deliberate Manager, Solo Advocate
Curriculum: Process Technicians

TOUCHPOINTS TO LEVERAGE

EdTech: Evaluate
Curriculum: Signal, Mobilize

BARRIER

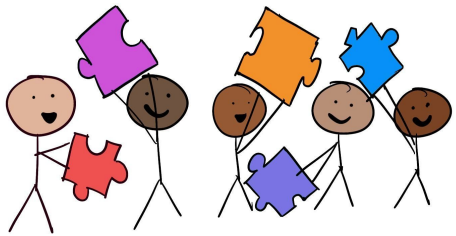
There's an overreliance on using evidence sources that are learned about from peers' experiences.

"We reach out to peers a lot and see what's used at a national level."
— Chief Technology Officer, TX

The majority of both core curriculum (82%) and EdTech purchasers (94%) were significantly likely to agree that their district considers peer recommendations including recommendations from other districts when selecting core curriculum instructional materials/EdTech.

RECOMMENDATION

Collaborate with other, potentially local education organizations to promote the organization and its resources; campaign timing should match with with key decision-making moments, such as adoption cycles.



Optimize Users' Visibility of Evidence

[1.3]

MOST IMPACTED SEGMENTS

EdTech: All
Curriculum: All

TOUCHPOINTS TO LEVERAGE

EdTech: Needfind
Curriculum: Signal, Mobilize

BARRIER

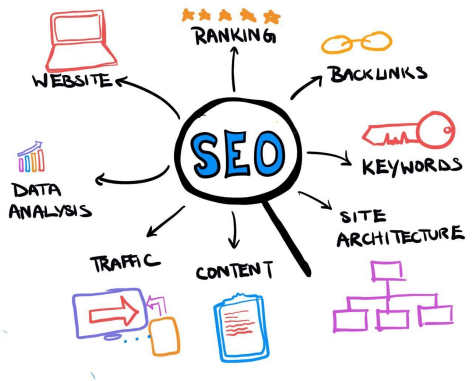
Web searches are one of the top ways that individuals search for information on instructional materials.

"We tend to first look at product websites, then examine if other companies have used it."
— Instructional Technology Specialist, TX

63% of EdTech purchasers prefer looking to websites that offer information on EdTech products and standards alignment. 71% of curriculum purchasers prefer looking to websites that offer reviews of instructional materials.

RECOMMENDATION

Verify that Search Engine Optimization (SEO) processes have been implemented for the website to increase performance in organic search results and overall traffic.



Personalize Users' Engagement with Evidence

[1.4]

MOST IMPACTED SEGMENTS

EdTech: All
Curriculum: All

TOUCHPOINTS TO LEVERAGE

EdTech: Needfind, Evaluate
Curriculum: Signal, Mobilize, Evaluate

BARRIER

A perceived lack of personalization can impact the user experience when diving into resources.

"We want a personalization/ filtering aspect. To put in criteria and for it to tell what materials have that."

— Teacher Leader, PA

26% of core curriculum and 25% of EdTech purchasers note that available information/evidence doesn't seem applicable to their district context.

RECOMMENDATION

Organize site resources thematically and introduce a short quiz that prompts for answers to questions such as role, seniority, and theme of interest to better automate resource discovery in a tailored manner and support a "just for me" experience.

AVAILABLE: Ensuring evidence is intuitive to find at key moments

RECOMMENDATION	KEY PERFORMANCE INDICATORS
(1.1) Timely Evidence Reminders	❖ # of page visits during special time periods related to procurement and the school year ❖ # of downloads of resources during special time periods ❖ % of shares, posts, tags, and mentions of the organization during special time periods
(1.2) Regular Partnerships	❖ # of new partnerships per year ❖ # of shares, posts, tags, and mentions on social media from other organizations and user groups ❖ % of new attendees at partnered events ❖ # of new leads generated by partner organizations per month and/or year
(1.3) Increased Site Traffic	❖ % of organic searches via search engines ❖ % of user traffic from school district purchasers ❖ # of unique, first-time users on a monthly basis ❖ # of pages viewed per session on the website
(1.4) Tailored Site Experience	❖ # of participants who partake in the personalized site visitor quiz ❖ Conversion rate of those who partake in the personalized site visitor quiz ❖ User satisfaction ratings collected via pop-up messages ❖ % of user traffic across all resource pages

Create Evidence Dissemination Guidelines

[2.1]

MOST IMPACTED SEGMENTS

EdTech: Solo Advocate
Curriculum: District Champion, Process Technician

TOUCHPOINTS TO LEVERAGE

EdTech: Needfind, Evaluate
Curriculum: Mobilize, Evaluate

BARRIER

There's low awareness of where to get all the types of evidence sources that can be used to inform decision-making.

"I don't think people are very aware of a reputable tool/process out there."
— Chief Technology Officer, MN

Limited awareness of what information/evidence is available is one of the biggest challenges to districts according to 43% of core curriculum purchasers and 49% of EdTech purchasers.

RECOMMENDATION

Share a complete guide that highlights best practices for disseminating resources.

Summarize Key Implications of Evidence

[2.2]

MOST IMPACTED SEGMENTS

EdTech: Solo Advocate
Curriculum: District Champion

TOUCHPOINTS TO LEVERAGE

EdTech: Evaluate
Curriculum: Mobilize, Evaluate

BARRIER

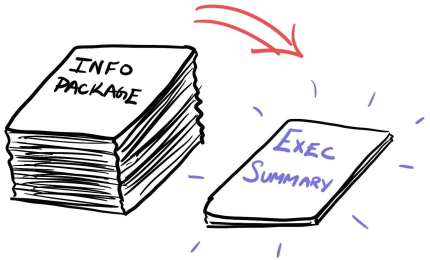
Decisions makers often lack the time and cognitive bandwidth to dive deeply into the resources that inform adoption/purchasing decisions.

"Time is the biggest barrier, to really digging into a product and making the best choice."
— Executive Director of Teaching, Learning and Accountability, MO

Time is one of the frequent challenges to using information/evidence in the adoption process (32%) and EdTech purchasing (39%).

RECOMMENDATION

Offer shorter information packages so that users can quickly understand key messages and implications; consider formatting styles such as checklists and salient indicators to make the takeaways clear and easy to grasp.



Streamline Access to Evidence

[2.3]

MOST IMPACTED SEGMENTS

EdTech: Solo Advocate, Data Enthusiast
Curriculum: District Champion, Process Technician

TOUCHPOINTS TO LEVERAGE

EdTech: Needfind, Evaluate
Curriculum: Mobilize, Evaluate

BARRIER

Users may have uncertainties about the organization and privacy concerns when many questions about their role and occupation are mandatory to access a given resource.

"Paying for access is an issue; I don't really find organizations or big organizations that often that really understand what we're trying to do."

— Assistant Superintendent, Curriculum and Innovation, IL

A quarter of core curriculum and 39% of EdTech purchasers noted that simply accessing information/evidence was difficult.

RECOMMENDATION

Facilitate speed and ease in accessing evidence by reducing instances where users must submit personal information, such as their full name, organizational email, phone number, state, etc.

Support Users One-on-One with Evidence

[2.4]

MOST IMPACTED SEGMENTS

EdTech: Solo Advocate
Curriculum: District Champion

TOUCHPOINTS TO LEVERAGE

EdTech: All
Curriculum: All

BARRIER

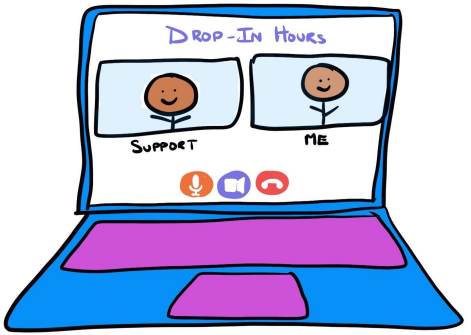
Highly specific questions can arise for resources, and individuals may not have the availability to submit their question via email submission or find the answer to their inquiry online.

"When you ask somebody, you don't need to wait for a response… for clarifying questions."
— Director of Technology and Assessment, IL

37% of EdTech and 38% of core curriculum purchasers note that a challenge to using information/evidence to inform decisions stems from limited trust in the reliability of available information/evidence.

RECOMMENDATION

Consider a few fixed online drop-in hours where members of the organization are available to answer user questions about a particular product, resource, etc.



ACCESSIBLE: Reducing the friction to obtain evidence

RECOMMENDATION	KEY PERFORMANCE INDICATORS
(2.1) Resource Reference Guide	❖ # of unique resource downloads ❖ % of users who engage with resources specific to their field (e.g., EdTech, CC) ❖ Search volume or # of searches of the organization's name in popular search engine tools
(2.2) Simple Resource Structures	❖ Time spent per abridged resource, to completion ❖ # of downloads for abridged resources ❖ Customer effect score or ratings of how easy it was for users to solve their specific problem
(2.3) Easier Access Conditions	❖ Click-through rates to download resources ❖ Time reduced at access portal pages or pay-to-access pages ❖ # of tickets to customer service issuing a complaint about access and/or privacy
(2.4) One-on-One Availability	❖ # of users who participate in drop-in hours ❖ NPS or overall user satisfaction with drop-in hours and the overall organization ❖ Time spent with customer service calls and/or chat bots

Leverage Meaningful Data Visualizations

[3.1]

MOST IMPACTED SEGMENTS

EdTech: Solo Advocate, Data Enthusiast
Curriculum: District Champion, Process Technician

TOUCHPOINTS TO LEVERAGE

EdTech: Evaluate, Pilot
Curriculum: Evaluate, Pilot, Winnow

BARRIER

Decision-makers may not have the expertise, time, or confidence to understand data results, especially if the presentation format is not user-friendly.

"Data is very useful… but not everyone knows how to interpret."
— Chief Academic Officer, MN

Only 45% of EdTech purchasers agree that evidence or data available on EdTech products is easy to understand and apply to the process of assessing materials.

RECOMMENDATION

Use simple visualizations, percentages, and explicit rankings to represent data points, rather than absolute numbers or pie charts, accompanied by a brief interpretation that captures main takeaways.

Create Concise Evidence Titles

[3.2]

MOST IMPACTED SEGMENTS

EdTech: All
Curriculum: All

TOUCHPOINTS TO LEVERAGE

EdTech: Needfind, Evaluate
Curriculum: Mobilize, Evaluate

BARRIER

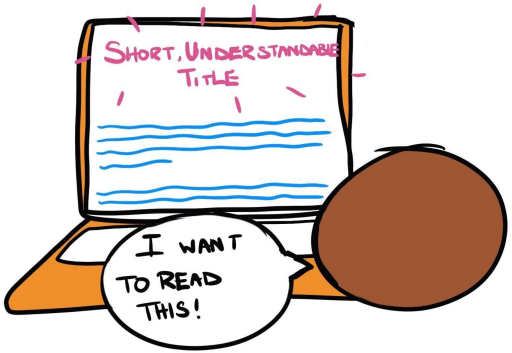
Lengthy resource titles can hinder a user's deeper engagement with that resource.

"Our biggest challenge is making sure data is accessible to all players in our selection committee."
— Director of Technology, CA

In a Discrete Choice Experiment, 60% of respondents indicated a preference for shorter, informative titles containing concrete outcomes relative to a district-specific title.

RECOMMENDATION

Use short and understandable titles that capture the research context, scale, and outcome, to promote the likelihood of individual's further engaging with the resource.



Publish Intentional Piloting Procedures

[3.3]

MOST IMPACTED SEGMENTS

EdTech: Solo Advocate
Curriculum: District Champion

TOUCHPOINTS TO LEVERAGE

EdTech: Pilot
Curriculum: Pilot, Winnow

BARRIER

Piloting triggers a sense of sunk cost, making it difficult for individuals to pivot away from a given product because they've already invested time and resources into it.

"Most of the time piloting leads to purchase… people want it from the beginning, there's that buy-in."

— Assistant Superintendent, CA

52% of EdTech and 50% of core curriculum purchasers agreed that in their experience, piloting a product/curriculum usually leads to a purchase of that same product/curriculum.

RECOMMENDATION

Publishing rubrics or guidelines for conducting and evaluating pilots, which users can download and adapt to their specific district's context to facilitate objective decision-making and ease of piloting.

Support Users Proactively

[3.4]

MOST IMPACTED SEGMENTS

EdTech: All
Curriculum: All

TOUCHPOINTS TO LEVERAGE

EdTech: Needfind
Curriculum: Mobilize, Evaluate

BARRIER

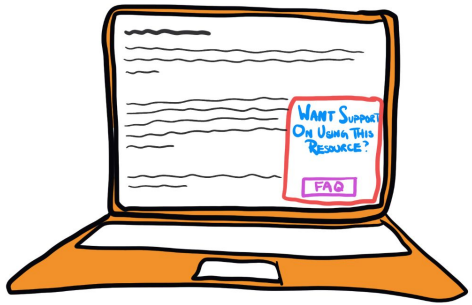
New visitors to the organization's site might not know where to start when it comes to exploring resources.

"The website search needs to be better organized. I have difficulty finding what I am looking for."
— Teacher Leader, IL

63% of EdTech and 71% of core curriculum purchasers selected websites as one of their top three preferred channels for accessing information on EdTech product quality/curriculum quality.

RECOMMENDATION

Improve confidence in website and resource engagement through online and offline supports, such as support messages on websites or easily accessible helplines.



ACTIONABLE: Clearly promoting the practical value of evidence

RECOMMENDATION	KEY PERFORMANCE INDICATORS
(3.1) Straightforward Data Visualizations	❖ % of users who engage with resources containing clear visualizations ❖ # of downloads for data resources accompanied by takeaways ❖ % engagement with social media posts showing data visualizations
(3.2) Informative Evidence Titles	❖ Time spent with resources represented by improved titles ❖ # of downloads for resources with improved titles ❖ # of shares for resources with improved titles on other education organization's pages and social media accounts
(3.3) Intentional Piloting Processes	❖ Click-through rates for resources containing piloting practices ❖ # of downloads for piloting guidelines and rubrics ❖ % of users who indicate they pilot after purchasing in annual survey ❖ Time spent on piloting resource
(3.4) Proactive Site Support	❖ # of clicks on the CTA for resource support ❖ # of new users who visit and scroll through the majority of FAQs ❖ % of Customer Service Representatives occupancy

Increase Transparency of Evidence

[4.1]

MOST IMPACTED SEGMENTS

EdTech: Deliberate Manager
Curriculum: Process Technician

TOUCHPOINTS TO LEVERAGE

EdTech: Needfind, Evaluate
Curriculum: Mobilize, Evaluate

BARRIER

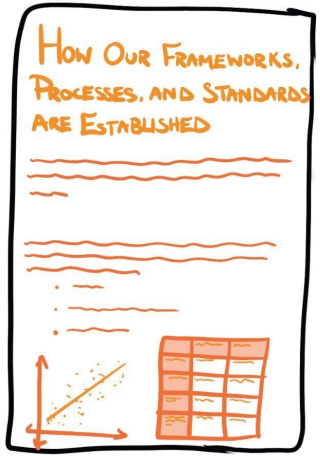
Purchasers care about how an organization goes about producing the content and/or products that they create.

"I'd like to know a bit more about the reviewers. Who is on the panel? What is that panel's background? In what kind of districts does that panel have experience working?"
— Teacher Leader, IL

Only 20% of EdTech purchasers considered research conducted by vendors on their products to be a trustworthy source of information about the quality of products.

RECOMMENDATION

Publish background information as to how frameworks, processes, and standards are established for resources, as applicable.



Leverage Social Norms to Promote Evidence

[4.2]

MOST IMPACTED SEGMENTS

EdTech: Solo Advocate
Curriculum: District Champion

TOUCHPOINTS TO LEVERAGE

EdTech: Evaluate, Pilot
Curriculum: Evaluate, Pilot, Winnow

BARRIER

When decision-makers rely on word-of-mouth as evidence, they're unlikely to be asking questions to their peers in an objective or standardized way.

"Before purchase, we look to the case studies that vendors provide."

— Director of Technology, NY

The majority of both core curriculum (82%) and EdTech purchasers (94%) were significantly more likely to agree that their district considers peer recommendations, including recommendations from other districts, when selecting instructional materials.

RECOMMENDATION

Use case studies to showcase examples of similar districts who have effectively engaged with evidence to identify materials, and why they did so. Highlight their processes.

Acknowledge Users' Engagement with Evidence

[4.3]

MOST IMPACTED SEGMENTS

EdTech: All
Curriculum: All

TOUCHPOINTS TO LEVERAGE

EdTech: Evaluate, Purchase
Curriculum: Mobilize, Purchase

BARRIER

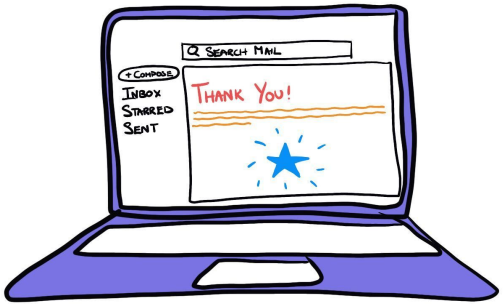
Individuals may not sense that their evidence use is recognized or acknowledged, making them less likely to repeat evidence engagement.

"We often don't rely on ranks more so than hard data because people in the district — especially teachers — don't care about data. There's little incentive for us to use it."
— Teacher Leader, PA

Only 68% of EdTech purchasers agree that their selection team is motivated to apply evidence and data to inform the assessment and purchasing process.

RECOMMENDATION

Send a note of appreciation to individuals such as regular, high open rates and click-through rates via an email to make them feel recognized for engaging with the organization's resources.



Harness Social Proof to Increase Trust in Evidence

[4.4]

MOST IMPACTED SEGMENTS

EdTech: Solo Advocate
Curriculum: Well-resourced Negotiator

TOUCHPOINTS TO LEVERAGE

EdTech: Needfind, Evaluate
Curriculum: Mobilize, Winnow

BARRIER

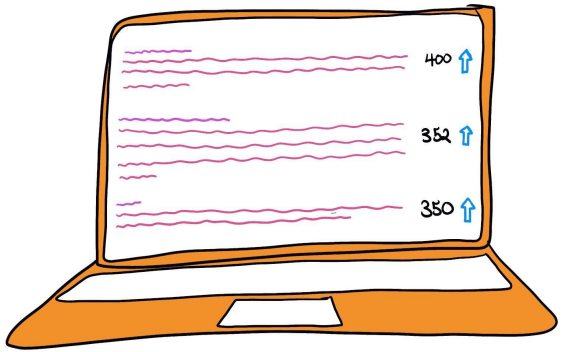
Evidence users may not consider new evidence if there's no clear signal that others are using high-quality alternatives.

"I rely heavily on feedback from others in the field."
— Director of Technology, NY

93% of EdTech and 78% of core curriculum purchasers believe that their district should consider peer recommendations, including recommendations from other districts, when selecting EdTech products/core curriculum.

RECOMMENDATION

Establish social movements behind evidence such as allowing users to "upvote" or "like" the different resources offered online.



DESIRABLE: Highlighting the value-add of evidence

RECOMMENDATION	KEY PERFORMANCE INDICATORS
(4.1) Transparency in Evidence Creation	❖ # of visits for web pages that outline the organization's resource creation process ❖ % of overall resource engagement ❖ NPS or overall user satisfaction with the organization
(4.2) Case Study Relatedness	❖ # of unique resource downloads by users from analogous districts, as related to the specific case study ❖ Time spent with resources that detail successful district outcomes ❖ # of clicks on links within resources that detail successful district outcomes
(4.3) Appreciative Notes for Evidence Engagement	❖ NPS or overall user satisfaction with the organization ❖ # of new or diverse resources engaged within *X* months after the appreciative note ❖ % of users who continue to engage with resources after *X* months ❖ Open rates for emails containing the appreciative note
(4.4) Social Signals for Evidence	❖ # of shares, posts, tags, and mentions of the organization on social media ❖ # of new users to the organization's website/resources ❖ # of impressions (i.e., # of people shown website-related content) on social media via shared posts

Generate User Buy-in by Ensuring Relatability

[5.1]

MOST IMPACTED SEGMENTS

EdTech: Data Enthusiast
Curriculum: Process Technician

TOUCHPOINTS TO LEVERAGE

EdTech: Evaluate
Curriculum: Mobilize, Evaluate

BARRIER

Individuals are less likely to feel that a piece of evidence resonates with them if it doesn't relate to their real-world circumstances.

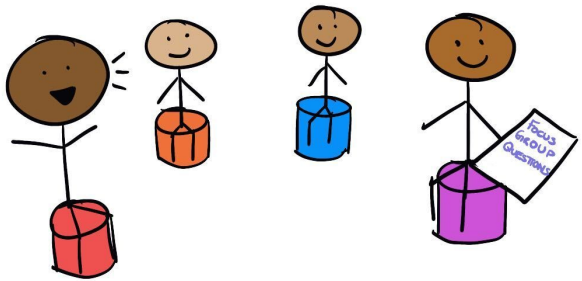
"We've read the educational research on what makes a good curriculum but living it with the kids is most important, context specificity. We have a lot of parent groups and site-council and leadership teams who give input."

— Director, Curriculum, Instruction, and Assessment, CA

26% of core curriculum and 25% of EdTech purchasers note that available information/ evidence doesn't seem applicable to their district context.

RECOMMENDATION

Involve users in the evidence creation process by conducting interviews, focus groups, and small-scale surveys to ensure that users themselves resonate with the content written about the instructional materials.



Contextualize Signals with Supporting Information

[5.2]

MOST IMPACTED SEGMENTS

EdTech: All
Curriculum: All

TOUCHPOINTS TO LEVERAGE

EdTech: Evaluate
Curriculum: Mobilize, Evaluate

BARRIER

Individuals are unlikely to use evidence if they deem the evidence as being too general.

"A lot of contextualization is needed to start conversation [about products]."
— Director of Technology & Assessment, IL

In a Discrete Choice Experiment, 60% of individuals preferred an article title with a school district's population numbers, relative to 40% who preferred an article title describing a "larger school district."

RECOMMENDATION

Present research findings at the district level — the level rated most relatable by decision-makers — and offer demographic information, as applicable.

Communicate to Users Inclusively

[5.3]

MOST IMPACTED SEGMENTS

EdTech: All
Curriculum: All

TOUCHPOINTS TO LEVERAGE

EdTech: Needfind, Purchase
Curriculum: Mobilize, Evaluate, Purchase

BARRIER

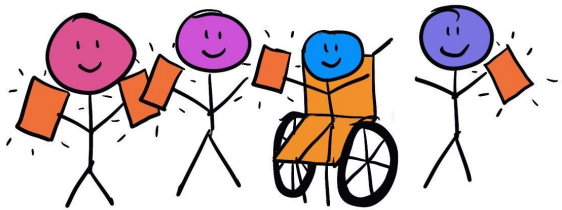
Individuals may, over time, develop an unbalanced focus for specific student groups and believe that only certain groups would benefit most from a particular material.

"We only look at materials that represent whole students — different cultures and ethnicities."
— Executive Director of Teaching, Learning and Accountability, MO

26% of core curriculum and 25% of EdTech purchasers note that available information/evidence doesn't seem applicable to their district context.

RECOMMENDATION

Focus messaging about outcomes on the entire student community and how students from diverse backgrounds are all able to equally benefit from high-quality materials.



Emphasize Where Evidence Aligns with Standards

[5.4]

MOST IMPACTED SEGMENTS

EdTech: All
Curriculum: All

TOUCHPOINTS TO LEVERAGE

EdTech: Needfind, Evaluate
Curriculum: Mobilize, Evaluate, Winnow

BARRIER

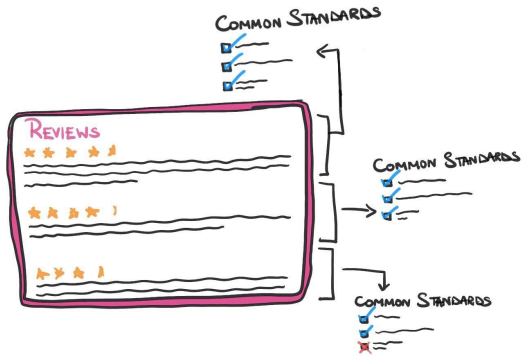
Decision-makers highly prioritize or only seek out evidence that is aligned with pre-existing state or other educational standards.

"One of our musts is that the curriculum must align with Common Core and standards."
— Assistant Superintendent, IL

24% of core curriculum and 15% of EdTech purchasers note that a challenge to using information/evidence is the limited flexibility to consider new evidence given state requirements.

RECOMMENDATION

Connect reviews of instructional materials to information on how they align with or diverge from most commonly referenced standards (e.g., Common Core) via visible indicators.



PRAGMATIC: Describing evidence as practical and relatable

RECOMMENDATION	KEY PERFORMANCE INDICATORS
(5.1) Generate User Buy-in	❖ # of shares, posts, tags, and mentions on social media promoting the specific resource that the user was involved with creating ❖ Click-through rates for the specific resource that the user was involved with creating ❖ # of novel research studies crediting the resource for its creation
(5.2) Contextually Relevant Insights	❖ % of user feedback that is positive about the resources ❖ Click-through rates for resources describing findings at a district level, compared to other levels ❖ Customer effect scores or ratings of how simple it was to find relevant information
(5.3) Inclusive Messaging	❖ % of page visits for resources made by users across multiple U.S. regions ❖ # of shares, posts, tags, and mentions on social media of resources from priority school districts ❖ NPS or overall satisfaction of organization from users from priority districts
(5.4) Salient Evidence Indicators	❖ # of downloads for evidence sources that list indicators ❖ Time spent with resources that list alignment with standards ❖ % of users who indicate it was easy to find standards-aligned resources in annual feedback survey

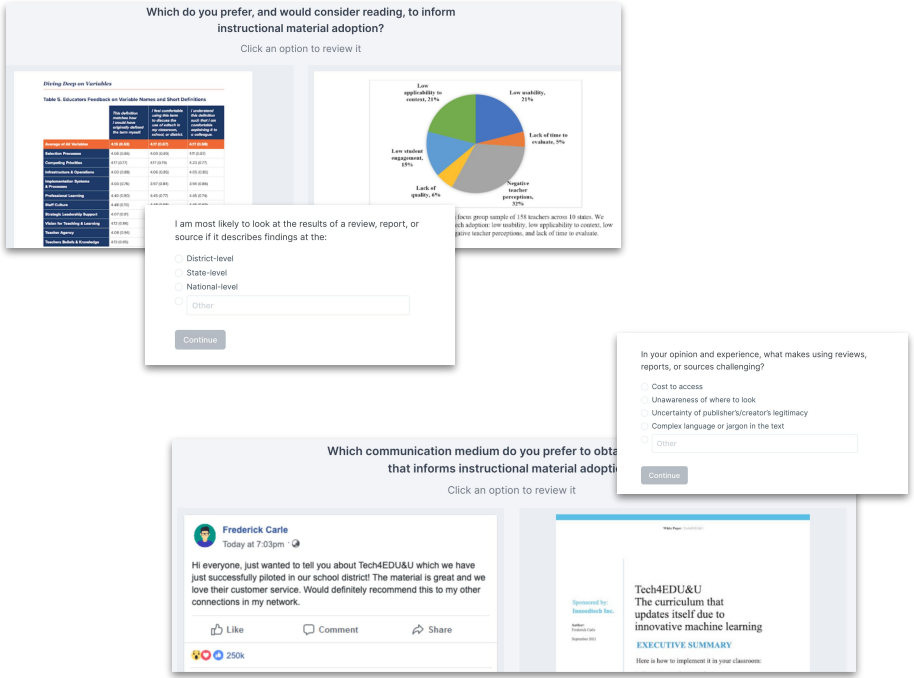
DISCRETE CHOICE EXPERIMENT

SUPPORTING INSIGHTS ON EVIDENCE PREFERENCES

We developed an experiment to solicit preferences for evidence along dimensions such as formatting, design, and communication medium

The discrete choice experiment (DCE) aimed to understand preferences for evidence as it relates to informing instructional materials purchases.

The DCE solicited choices from respondents between two options per question, as well as multiple-choice responses, for high-level **elements such as framing and length of a report, study design and data presentation, and communication mediums**.



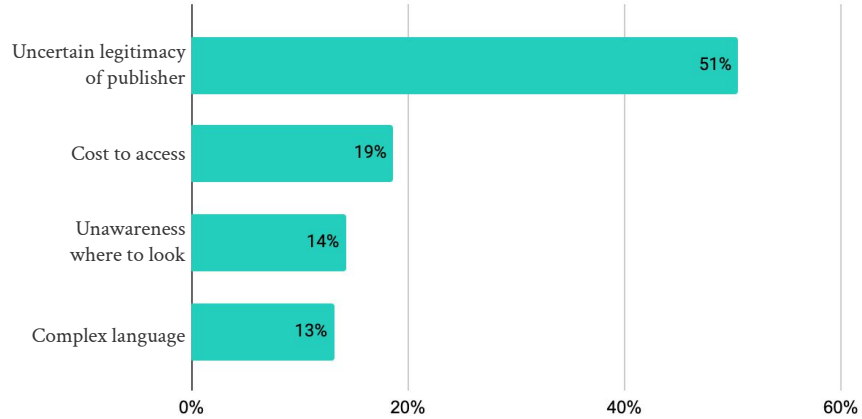
Key Insight: District decision-makers show strong preferences for evidence design and communication mediums

Element	Main takeaways
Evidence presentation	• **Articles with specific and relatable titles** (60%) over generic titles (~40%) • **Two to three page reports** (55%) over executive summary (35%) or full-length reports (6%) • **Pay to access** articles (65%) over disclosing information (35%)
Research design	• **Observational** (81%) over experimental studies (19%) • **Literature review** (82%) over correlational studies (18%) • **Large sample sizes** and **pioneer studies** (75%) over replications (25%)
Data presentation	• **Data visualizations** significantly preferred (47%) over raw data (2%), with an overall preference for **data accompanied by some form of interpretation** (51%) • **Availability of demographic data** agreed as useful (80%) to understand the applicability of findings to a district
Legitimacy and communication medium	• **White papers** on instructional materials (71%) over social media posts (29%) • **Conferences** (67%) over email from a district leader's who is unknown/they are not connected with (33%) • **Sponsored articles** do not diminish interest (57%) compared to academic articles that clearly communicate no conflict of interest (43%)

101 valid responses were gathered from a roughly equal sample (EdTech $N = 49$, Core Curriculum $N = 52$). Percentages denote agreement.

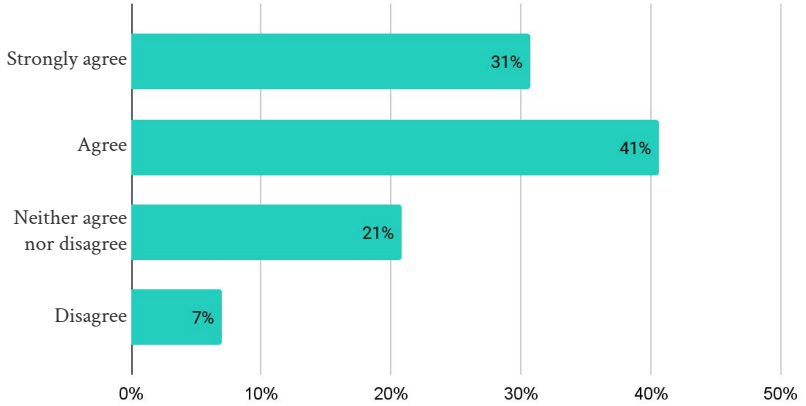
Deep Dive: Perceived legitimacy of the evidence source and the cost of accessing it influences a district decision-maker's uptake

*"In your opinion and experience, what makes using reviews, reports, or sources challenging?"**



District decision-makers are skeptical of evidence created by unfamiliar sources; trust in the legitimacy of the evidence creator is a precursor to its use

"I will never use evidence that has a fee or paywall associated with accessing it."

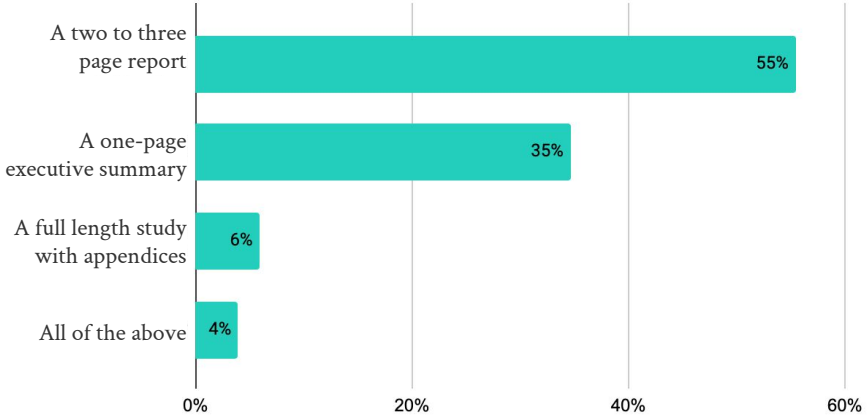


The preference for paying to access resources over disclosing personal information suggests that personal information and privacy is more highly valued by decision-makers

* Excludes selection of "Other" (3%).

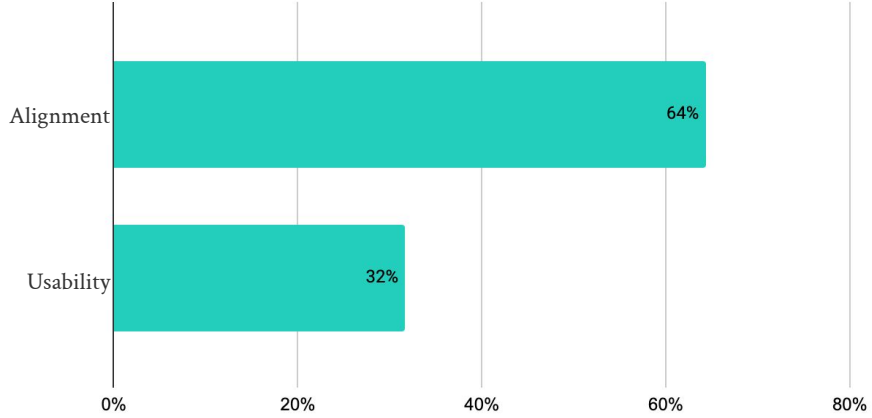
Deep Dive: Decision-makers prefer sources that are two to three pages in length, and are most likely to review evidence of standards alignment

"In your opinion and experience, what is the length or amount of information that you're most likely to read to feel sufficiently informed on an instructional material or product?"



A two to three page report is the best use of a district decision-maker's time; full-length articles should be de-prioritized for dissemination targets, to maximize the likelihood of resources being read

*"Please review the following evidence (an EdReports review). In your opinion and experience, what sections or headings are you most likely to fully review?"**

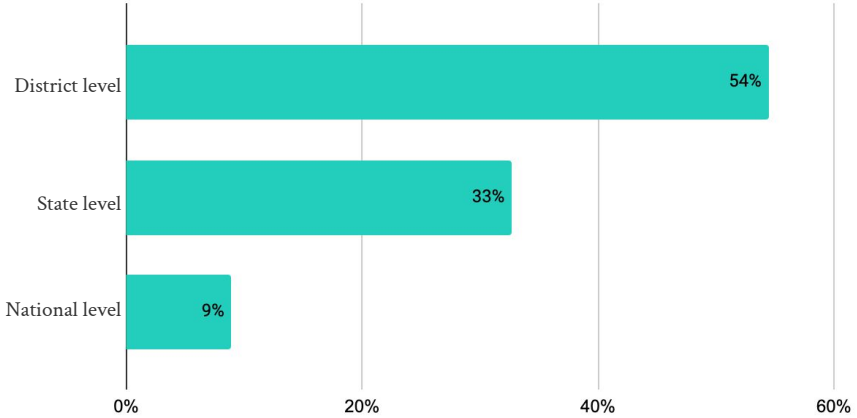


Alignment continues to be a key indicator of quality, suggesting that organizations should give greater visibility to this information to solicit resource engagement

* Excludes selection of "Other" (3%).

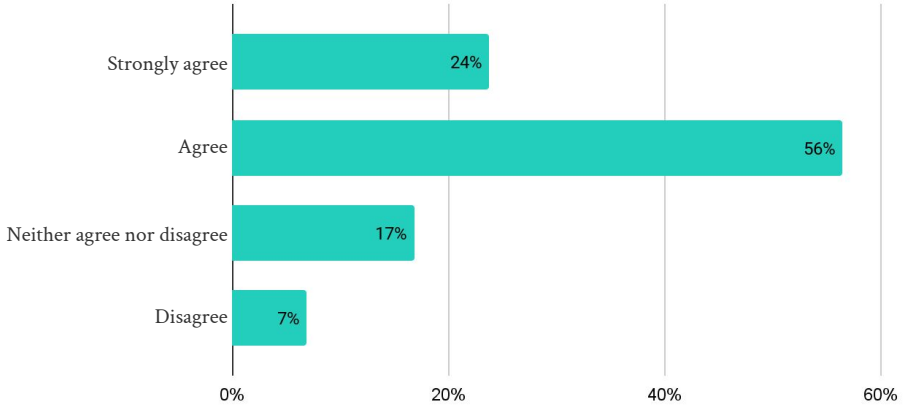
Deep Dive: Decision-makers favor evidence reported at the most local level and strongly prefer findings reported with demographic data

*"I am most likely to look at the results of a review, report, or source if it describes findings at the ...."**



Relatability to results is a driver of decision-maker engagement with a resource; descriptions that are more local enhance the likelihood of review

*"The availability of demographic data used to inform an instructional material report or review indicates a curriculum's applicability to my district context."***

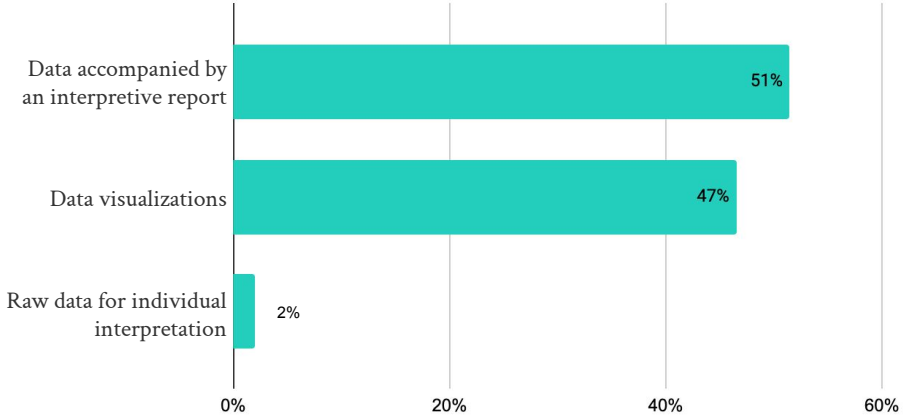


Availability of demographic data is seen by decision-makers as a key signal of the relevance of findings to their district/context; unspecific or general content should be avoided

* Excludes selection of "Other" (4%). ** Rounded to nearest whole number.

Deep Dive: Decision-makers prefer data that is accompanied by visualizations or interpretations

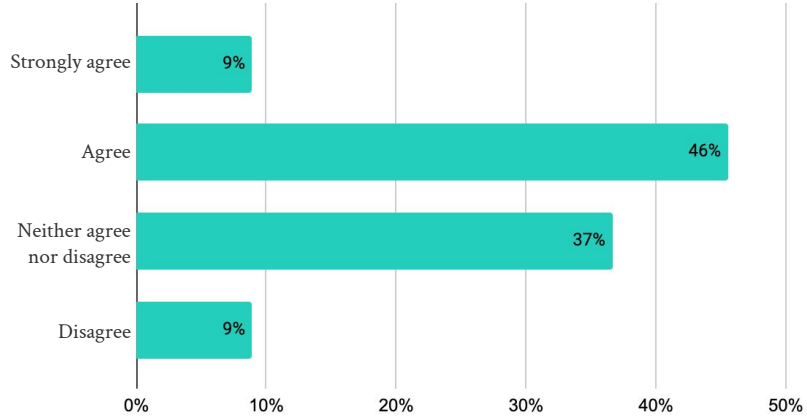
"In your opinion and experience, what is the preferred format for data?"



Potentially due to a lack of time or resources to analyze raw data, findings that can be easily understood are unsurprisingly, most preferred

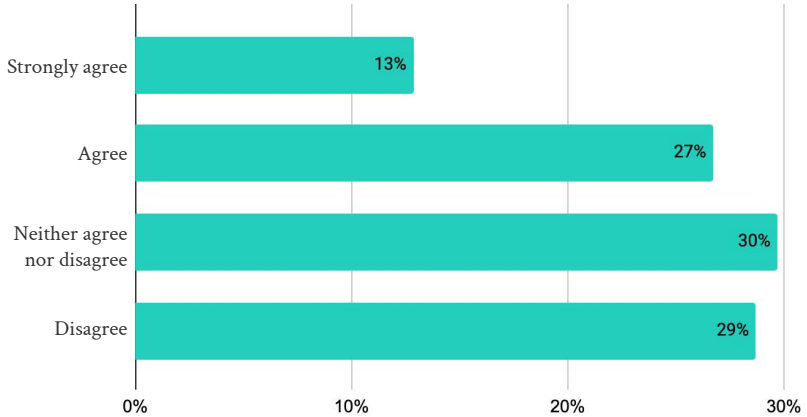
Deep Dive: Sponsorship of an evidence source does not strongly influence trust in it, and social media use for finding evidence is varied

"A report or review that is sponsored by any third-party organization, including non-profits, significantly influences my trust in the content of the report or review."



As long as the evidence is transparent and robust, sponsorship of reports and reviews does not significantly influence district decision-makers' trust in the evidence

*"In my experience, information on instructional materials found via social media is rarely or never consulted for adoption decisions."**

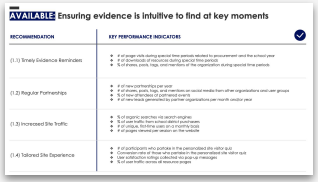


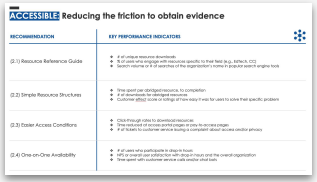
The mixed distribution of self-reports implies that certain segments rely on social media more than others; social media should continue to be a communication medium of focus

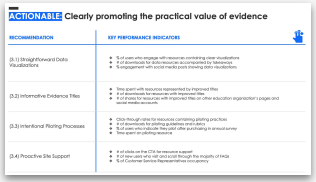
* Excludes selection of "Strongly Disagree" (2%).

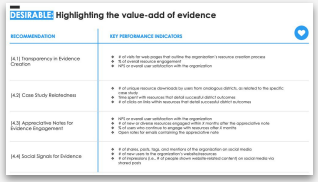
CONCLUSION

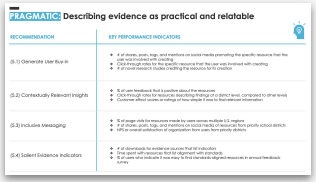
The KPIs for the recommendations will be used as objective measures in longer-term impact evaluation











IMPACT EVALUATION

How has evidence creators' **awareness of the barriers** to evidence and signal uptake changed?

How have evidence creators improved with **stronger evidence and signals of quality** to demand and supply?

How has EdReports used the evolved personas and narrative report to adapt how they **create and disseminate** signals of quality to purchasers?

How has ISTE used the recommendations and adapted the framework to update the **contents and presentation of their standards**?

Recommendations will evolve and be refined over the coming weeks via feedback from the teams at ISTE, EdReports, and the Gates Foundation

Socialization of ISTE- & EdReports-specific recommendations

April*

Feedback and refinement session with Gates Foundation

May

Finalization of recommendations to exist in V1 of evidence uptake platform

June/July

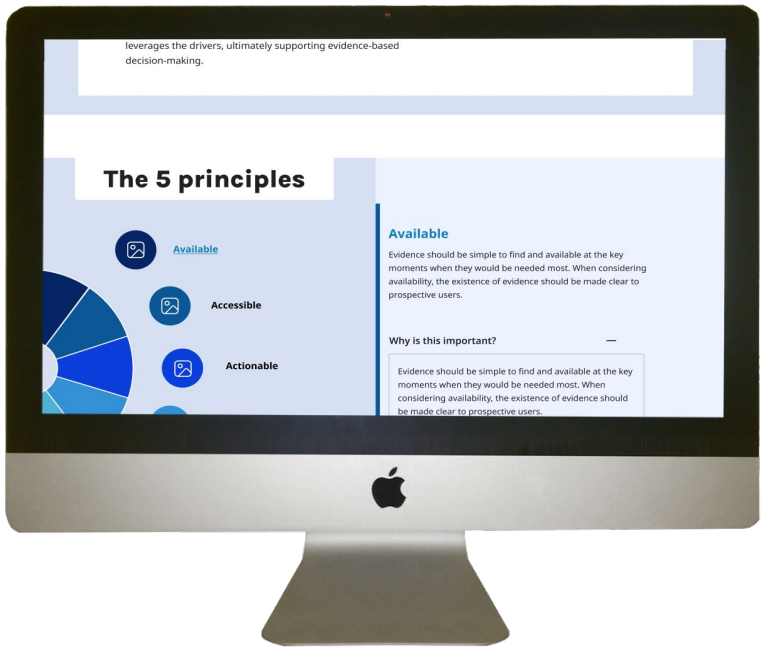
Formal launch of interactive evidence uptake platform

August +

* Subject to change.

Next Steps: Shaping the platform to promote evidence creation and uptake

Illustrative



This open-access platform is intended to serve as a single source of truth for organizations and teams who create evidence, and who want to learn **how to best maximize user's engagement with their resources** from a behavioral perspective.

The platform will contain elements such as:

1. Deep dives into the behavioral drivers to evidence engagement
2. Recommendations that intentionally impact specific segments and touchpoints of the EdTech and curriculum purchasing journeys
3. Tools, worksheets, and resources that make the recommendations easily actionable

Thank you.

Should you have any questions, do not hesitate to reach out to our team:

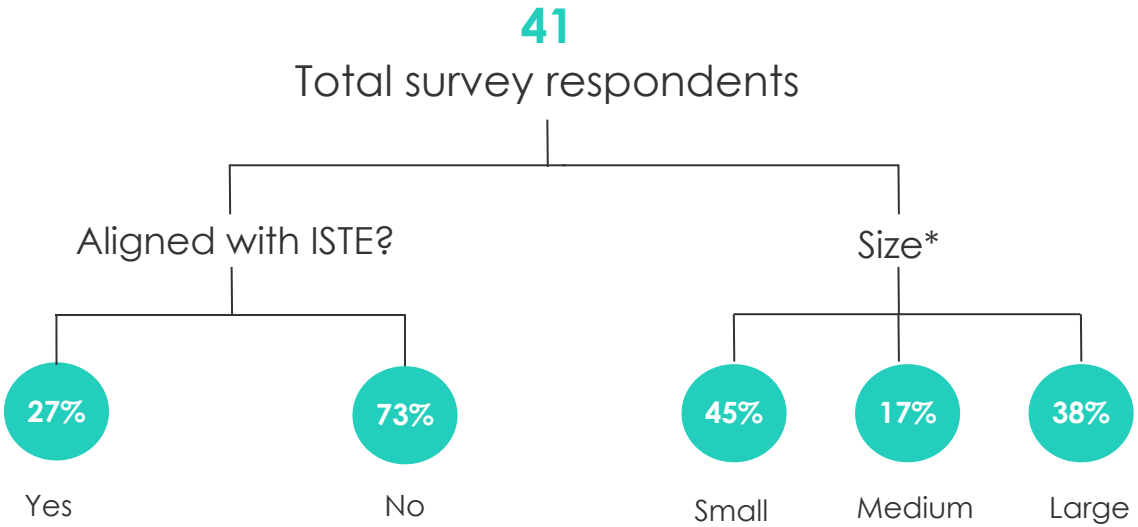
Jayden Rae
Project Leader
Jayden.rae@TheDecisionLab.com

Jennifer Xue
Consultant
Jennifer@TheDecisionLab.com

APPENDIX

VENDOR SAMPLE

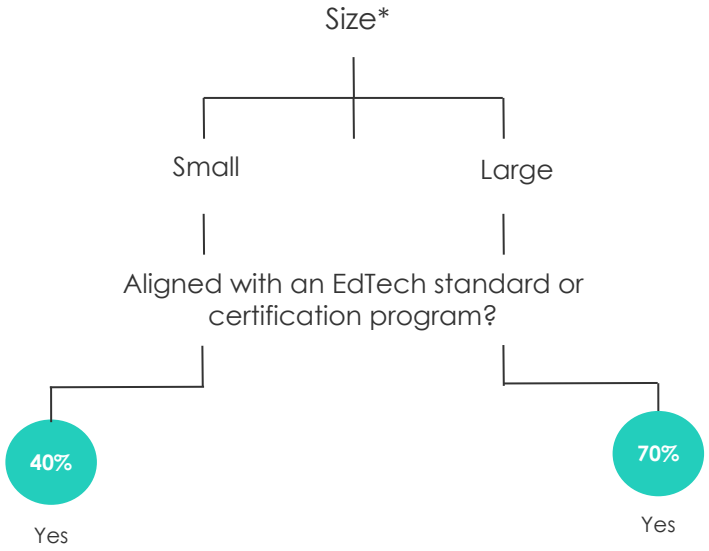
Vendor Size x ISTE Alignment



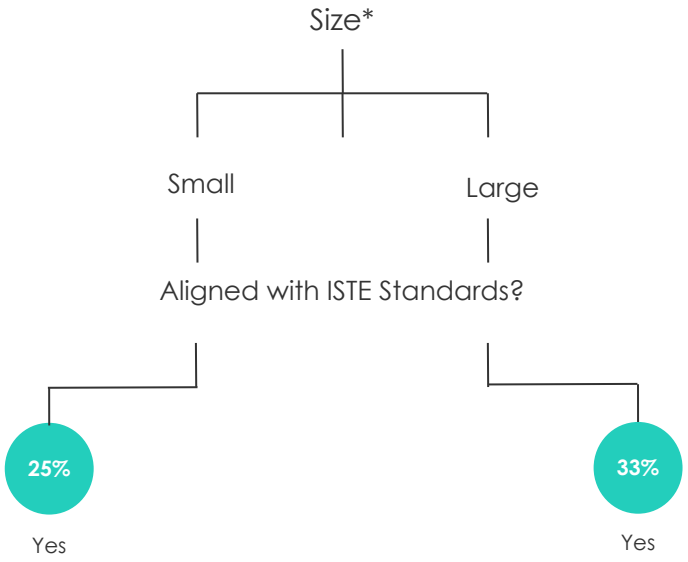
* Small = <50 employees, Medium = 50 – 200 employees, Large = >200 employees.

Small and Large Vendors x Standards and Certifications

Any EdTech Standard Alignment



ISTE Alignment

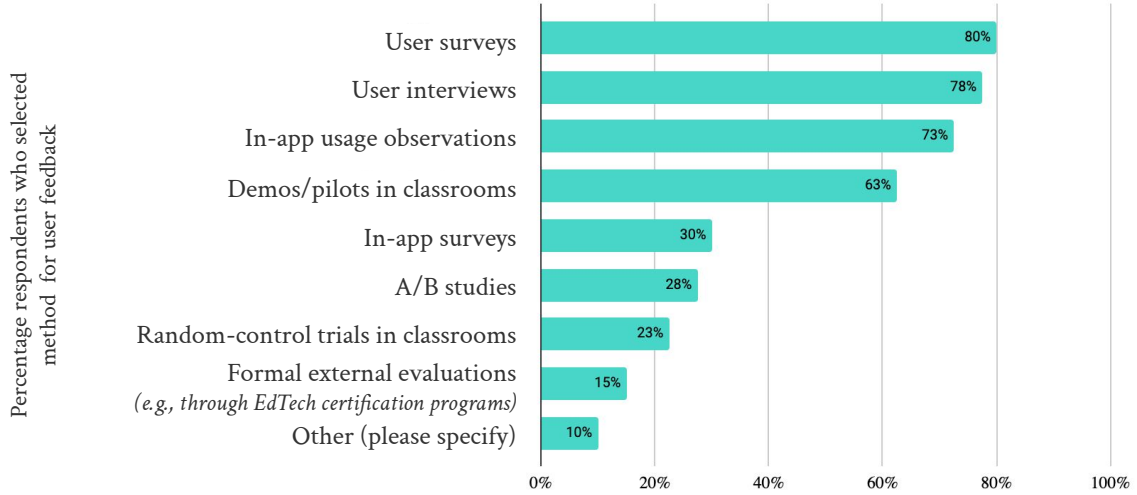


* Small = <50 employees, Large = >200 employees. Medium excluded from breakdown due to small *N*.

ADDITIONAL VENDOR DATA

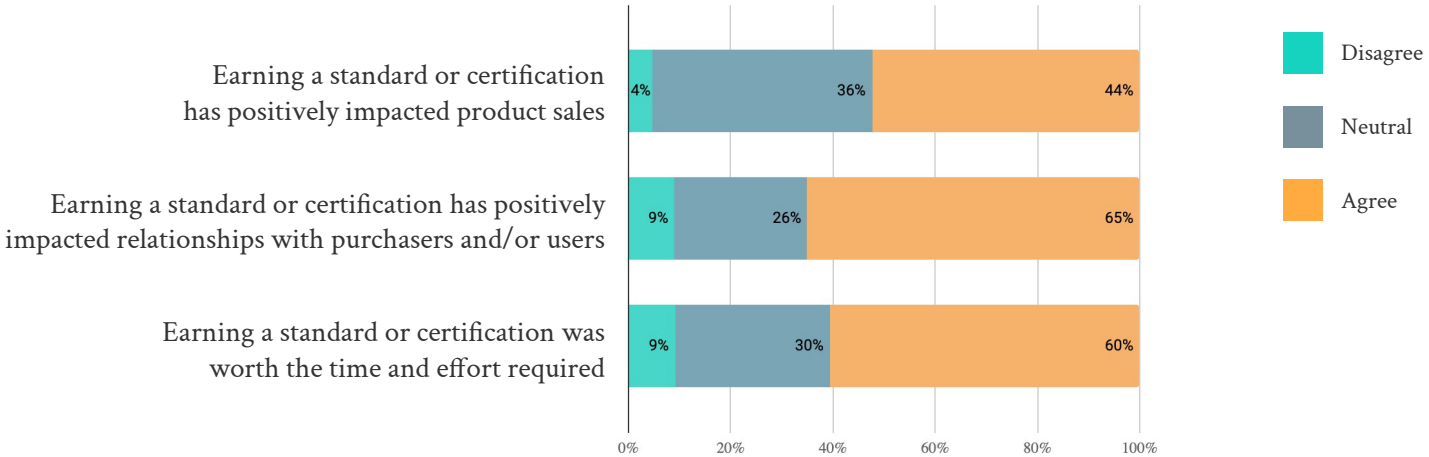
Vendors identified surveys, interviews, and in-app observations as primary collection tools for user feedback

"What methods do you use to collect user feedback?"



Key Takeaway Vendors most commonly use user interviewers and surveys; there is relatively limited use of A/B studies or UI/UX testing.

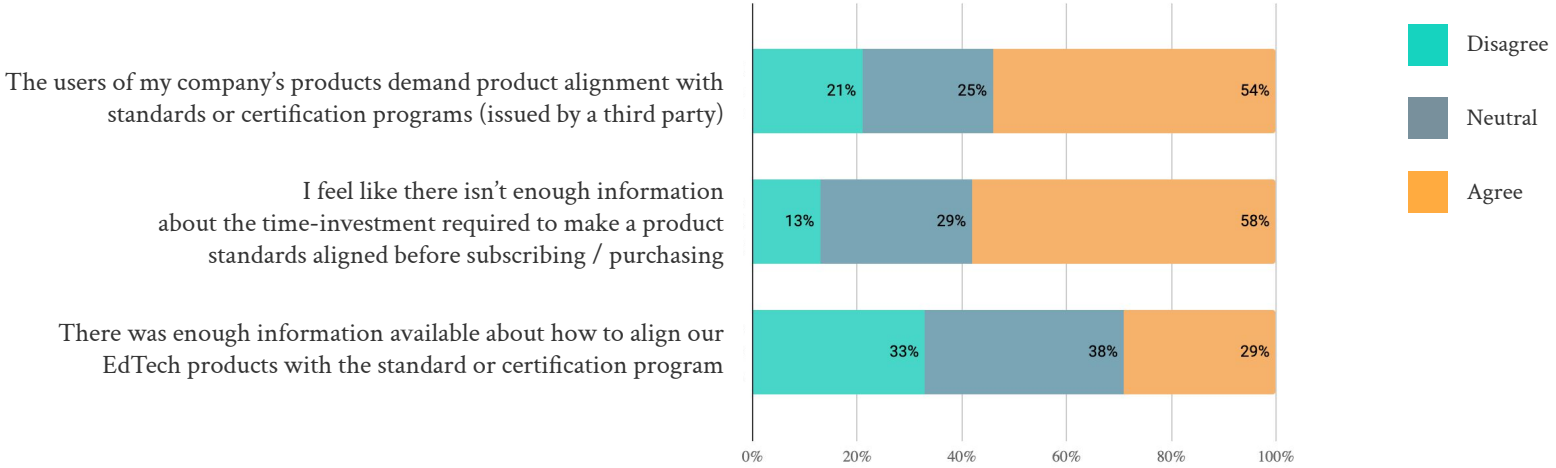
Vendor perception of standards or certifications



Key Takeaway Vendors who have engaged in standards or certifications have seen positive outcomes for purchasers, users, and in sales, but the gains have been less salient for some vendors.

23 respondents from our sample answered these questions.
Disagree = Strongly Disagree + Disagree; Agree = Strongly Agree + Agree; Rounded to the nearest whole number

Vendor engagement with standards or certifications



Key Takeaway Vendors may be aware that users demand product alignment with standards and certification programs, but the information required to fully engage this capacity might not be easily accessible.

24 respondents from our sample answered these questions.

VENDOR BARRIERS & DRIVERS

Discovery & Ideation: Barriers and Drivers

	DISCOVERY & IDEATION	BARRIERS/DRIVERS	DESCRIPTION	SUPPORTING DATA
1	Scope out users' "jobs to be" or goal that they want to accomplish, that could be facilitated with a product	**Customer needs are in constant flux,** preventing clear understanding of user goals, needs, or jobs to be done	Evolving user needs, goals, and demands in the EdTech market and emergence of new evidence limits vendors' ability to develop enduring solutions that meet their needs	*"Our understanding of what users need is constantly evolving."* Personalization and responding to diverse user needs ranked as the top challenge in developing products that support users.
2	Conduct gap analysis to assess disparity between vendor's potential and intended position in the EdTech market	**Confirmation bias validates pre-existing beliefs about user needs and priorities** during the market research phase when researchers use limited, known sources	Confirmation bias arises when researchers are more likely to seek out and agree with data that confirms pre-existing beliefs and is common in market research	*"We always purchase market research briefs from the same industry sources."* *"We hear about what teachers want in products through our social media monitoring."*
3	Create a product roadmap outlining strategy, timelines, and resource allocation that highlights the product's goal	**User research selection bias** skews data towards existing consumers, or well-studied users, limiting inclusion of underrepresented groups	Vendors prioritize the data that is easiest to access, preventing awareness of the diversity of user needs and experiences	72.5% of respondents indicated in-app usage observations as a method to collect user feedback.

Research & Validation: Barriers and Drivers

	RESEARCH & VALIDATION	BARRIERS/DRIVERS	DESCRIPTION	SUPPORTING DATA
1	Evaluate competitive advantage of the product idea and critically examine product proposition and positioning	**Conferences and professional forums set product-quality norms** for product developers to align with	Vendors assess what other EdTech vendors are aligning with as a signal for what consumers are demanding in the market	*"We decided to align with the ISTE Standards after attending the ISTE Conference and seeing that our competitors were aligned."* *"It's become the norm to align with certain privacy standards."*
2	Consult expert and educator advisors for input on area-specific considerations for the product design and content-creation phases	**Predisposition to halo effect,** due to over reliance on small number of expert advisors, particularly in the early-phases, can impact product development	Inclusion of expert advisors can create a "halo effect" where, because the expert has reputable credentials, their perspective is left unquestioned	*"Our founder is an EdTech expert and former professor so he's very familiar with the science and best practices."*
3	Create product roadmap outlining strategy, timelines, and resource allocation that highlights the product's goal	**Product strategy prioritizes technological aspects** but under-prioritizes the integration of knowledge and evidence from the learning sciences	Vendors prioritize the data that's easiest to access, preventing awareness of the diversity of user needs and experiences	40% of respondents disagreed that evidence of learning efficacy and user experiences is easily accessible.

Prototype Creation: Barriers and Drivers

	PROTOTYPE CREATION	BARRIERS/DRIVERS	DESCRIPTION	SUPPORTING DATA
1	Create initial product prototype to translate idea into a physical product	**Loss aversion** is reduced when the vendor creates a simple design with fewer sunk costs	Teams are less likely to get attached to a certain concept that has been developed at a low-cost with low-fidelity and may be more open to changing approaches, using new evidence	*"We start with prototypes and mockups, collect early focus groups and feedback, and then progress from there with some form of deep and external research."*
2	Gather internal feedback from various teams to refine and add detail to the product concept	**Social desirability bias** may impact internal stakeholders and users when providing feedback, particularly in in-person settings	At this stage in the process, developers are still relying on a limited subset of opinions, including from those who might be prone to giving desirable responses	59% of respondents chose internal company knowledge as one of the top three most useful type of evidence to inform product development decision-making.
3	Create the Minimum Viable Product (MVP) and send it to user groups for early validation	**Improved flexibility** by testing a functional but unfinished product reduces the "sunk cost" of testing a fully-developed product	Learn what resonates with the company's target market and what doesn't before developing a full product, which requires more resources	*"We often test [the product] with instructors, students, administrators (depending on user group), sometimes in beta form, through a survey or an actual user test to evaluate whether it will actually solve the problem."*

Feedback & Iteration: Barriers and Drivers

	FEEDBACK & ITERATION	BARRIERS/DRIVERS	DESCRIPTION	SUPPORTING DATA
1	Test MVP with a small group of users, involving potentially internal stakeholders	**Affect heuristic** is introduced in time-constrained testing environments, which facilitate emotional rather than deliberate user responses	Affective responses that trend towards towards binary (e.g., "I like or don't like this" feature) are less objective and less informative	77% of respondents identified user interviews (1-to-1 interviews or focus groups) as the primary source of user feedback.
2	Translate feedback into suggested changes to features, implemented by the development team	**Availability heuristic** concerns features that get prioritized based only on recently collected feedback	When prioritising features and deciding what are the most important ones to do, we're likely to prefer things that come easily to mind	*"[One of the biggest challenges to collecting user feedback is] making sure there is no pre-selection bias in the users we engage (only reaching out to users who are power users or neglecting users of a certain age, etc.)."*
3	Execute wider scale user testing to further refine the product; seek feedback from educators for input on content	**Tensions** exist between what user groups prioritize most in an EdTech product (e.g., ease of use) and what the research shows to be effective for users	Product strategies reflect most salient purchaser demands for ease of use and integrability into the existing district technological system	*"We had teachers ask us to design the assessment so that it would score as right or wrong, but we know from learning science research that approach demotivates student engagement."*

Deployment: Barriers and Drivers

	DEPLOYMENT	BARRIERS/DRIVERS	DESCRIPTION	SUPPORTING DATA
1	Promote product through various channels, including existing customer outreach to school districts, EdTech conferences, etc.	**For some products, teachers adopt directly** bypassing more stringent evaluation processes implemented by the district	When users adopt directly, it is more difficult to measure which products are in use and determine that evidence is used in a deliberative process	*"Teachers are the ones who get excited about Quaver products, push to get them in their schools and classrooms. We try to come from a very grassroots place because we know we can get a lot of movement if we get buy-in from teachers."*
2	Address concerns related to bugs and issues received through feedback from wider product implementation	Larger/more mature vendors are typically able to offer more **personalized capacity-building** to districts, with limited services for free products	Larger vendors indicate having larger professional development or customer support teams that are available to provide instantaneous support	*"We offer chatbots and customer service at all times."*
3	Assess new market opportunities and promote broad uptake of product	**Anchoring effect** occurs by framing different options relative to one "anchor" option, creating marketing challenges for vendors with free products	Users' decisions are influenced by the initial offering, providing an initial starting point, next to which, other options seem reasonable (e.g., cheaper options beside a premium one)	*"We have different product offerings, and want to learn more about what motivates a district to go from the free to paid mode."*

VENDOR RECOMMENDATIONS

Stage 1: Creating seal visibility and product discovery guidance

BARRIER	RECOMMENDATION	DESCRIPTION
Low awareness of the ISTE Seal for EdTech products	**(Discover.1) Heighten communications about the seal**	Maximize visibility of the ISTE Seal and the application form through targeted online communication mediums at peak times to capitalize on a greater pool of user attention.
Reliance on singular sources of feedback and evidence to inform product assessment	**(Discover.2) Set direction for using sources of evidence to inform product development**	Set an injunctive norm by selecting and "mandating" reliance on at least *X* number of sources when conducting preliminary market research/gap analysis.

Stage 2: Promoting the use of diverse research inputs

BARRIER	RECOMMENDATION	DESCRIPTION
Unclear understanding or perceived lack of norms for EdTech quality	**(Research.1) Connect with communities to popularize EdTech quality norms**	Harness the size of tech communities and ISTE community leaders to scale and standardize expectations about aligning with ISTE EdTech standards.
Under-prioritization of evidence from learning sciences compared to technology features	**(Research.2) Emphasize vendor guides that discuss applying learning sciences**	Improve the visibility of vendor-oriented documents that discuss leveraging learning sciences findings by pulling them out of the blog and cataloguing them as a dedicated topic area (e.g., Pillars of EdTech procurement, EdTech impact guide, a delicate balance).

Stage 3: Supporting evaluation during product development

BARRIER	RECOMMENDATION	DESCRIPTION
Minimal clarity or reduced experience in assessing product features	**(Prototype.1) Replicate evaluative resources to encourage product evaluation**	Curate a vendor-based decision guide that parallels the one designed for purchasers to support the regular evaluation of EdTech in production.
Perceived lack of process transparency on granting seals	**(Prototype.2) Provide additional information regarding the process of granting ISTE seals**	On the Seal of Alignment webpage, provide additional clarity on specific characteristics that products should have to earn the seal, and/or the general process and timeline that ISTE takes to grant the seal.

DISCOVERY & IDEATION | RESEARCH & VALIDATION | PROTOTYPE CREATION | FEEDBACK & ITERATION | DEPLOYMENT

Stage 4: Offering suggestions on effective user testing

BARRIER	RECOMMENDATION	DESCRIPTION
Minimal deep dives into user sentiments during testing	**(Feedback.1) Encourage deeper explanations of user preference**	Curate an "Understanding EdTech Users" Guide that emphasizes unpacking the *why* behind discrete choice and multiple choice responses via open response.
Reliance on quick, emotional responses from users that aren't relevant for product evaluation due to time constraints	**(Feedback.2) Leverage repeat rather than one-time feedback on EdTech experiences**	Curate an "Understanding EdTech Users" Guide that encourages two-part or pulses of feedback collection, to understand differences between immediate and longer-term impressions of products.

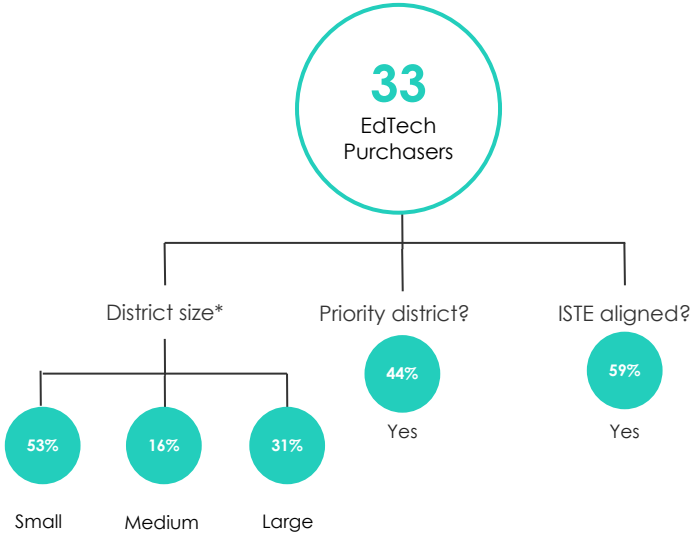
Stage 5: Providing support for vendor-purchaser relations

BARRIER	RECOMMENDATION	DESCRIPTION
Singular promotion channel or lack of EPI promotion to final users	**(Deploy.1) Ensure visible reminders about the product index**	Verify that the EdSurge Product Index (EPI) is clearly visible and mentioned frequently on ISTE's communication mediums; in particular, the EPI should be a static CTA and always shown in emails to ISTE members and listserv members.
Lack of alignment on importance of PD between vendors and purchasers	**(Deploy.2) Offer tips for smooth scaling of EdTech**	Curate a "Top Tips to Launching EdTech" Guide targeted at vendors and purchasers that articulates how and why both parties should aim to regularly connect throughout the EdTech scaling process.

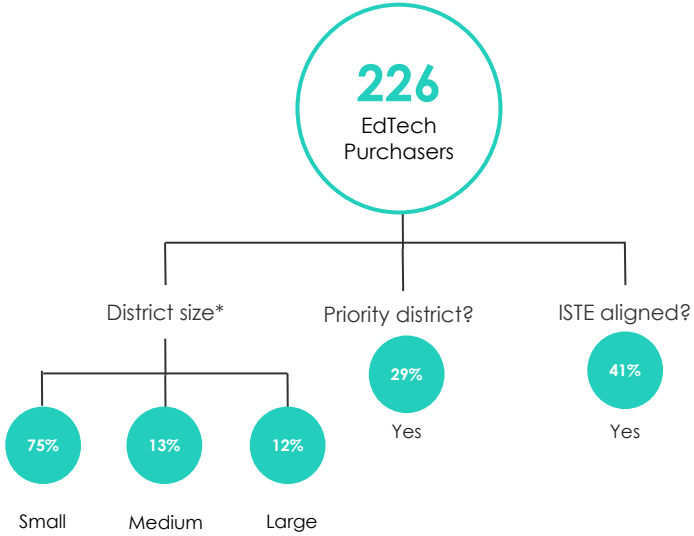
EDTECH PURCHASER SAMPLE

Sample Demographics: EdTech purchasers

Interview



Survey

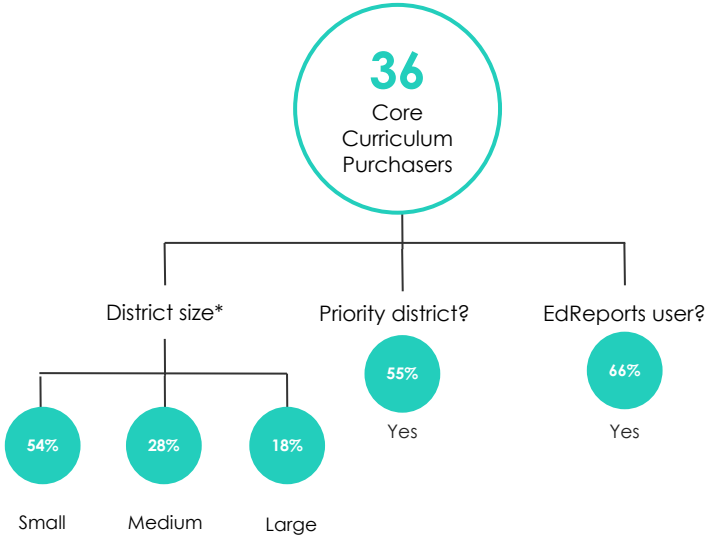


* Small = <5,000 students, Medium = 5,000 – 10,000 students, Large = >10,000 students.

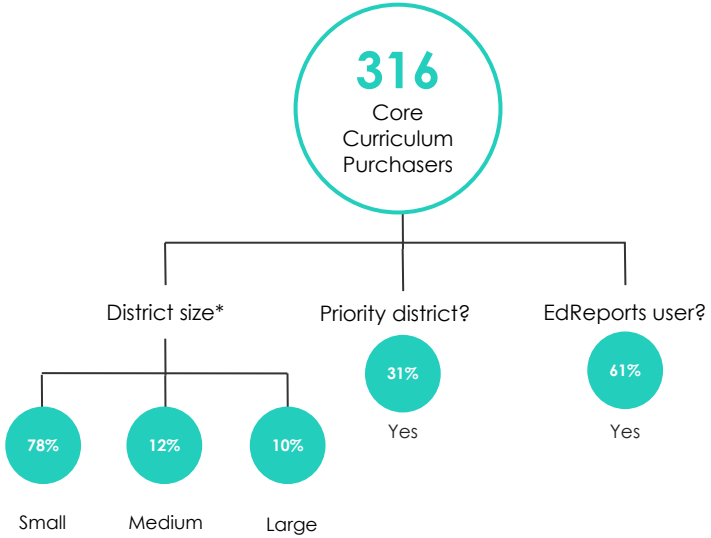
CURRICULUM PURCHASER SAMPLE

Sample Demographics: Curriculum purchasers

Interview



Survey



* Small = <5,000 students, Medium = 5,000 – 10,000 students, Large = >10,000 students.

EXHAUSTIVE PURCHASER JOURNEYS

Reading Guide: Evidence-exhaustive journey maps

The exhaustive journey maps outline **key touchpoints** and **substeps** of **decision-making** in the EdTech and core curriculum purchasing processes, from recognizing a market or district signal, all the way to purchase and scaling. The maps capture an exhaustive list of **all consulted sources of evidence** at a given substep.

A deep dive into the barriers and drivers per substep is conducted.

Decision Points

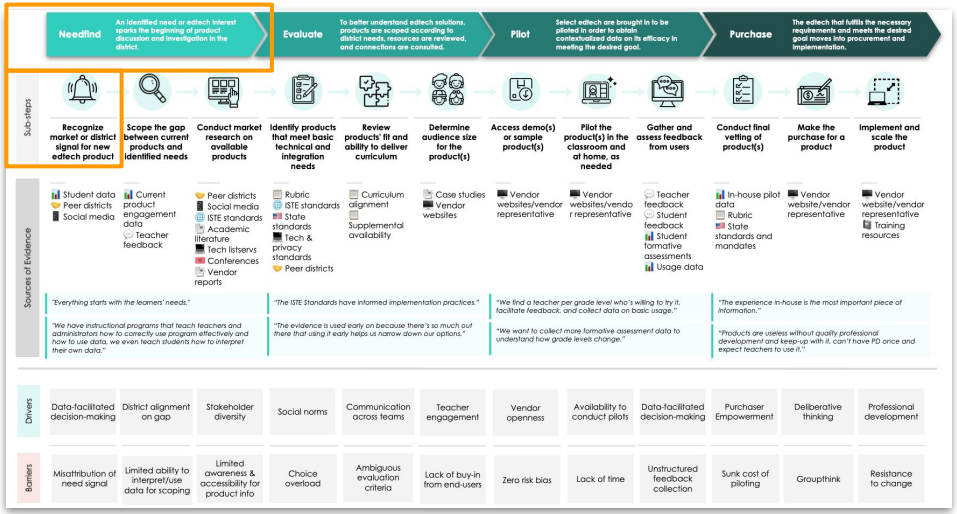
Touchpoint
A key step that EdTech purchasers would experience along the journey of bringing a product to the district.

Substep
Specific decisions made or actions taken by the purchaser that are associated with a given touchpoint.

Substep Elements

Sources of evidence
Evidence that is engaged at a substep touchpoint, denoted by an icon.

Barriers & drivers
Structural and psychological determinants that influence a particular substep.



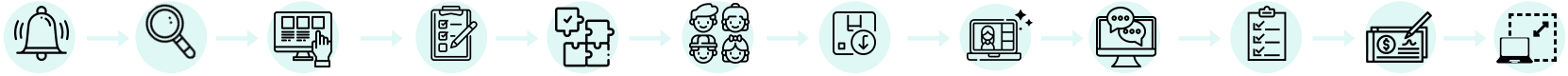
EXHAUSTIVE JOURNEY

EDTECH

EdTech Purchase

Needfind	Evaluate	Pilot	Purchase
An identified need or EdTech interest sparks the beginning of product discussion and investigation in the district.	To better understand EdTech solutions, products are scoped according to district needs, resources are reviewed, and connections are consulted.	Select EdTech is brought in to be piloted in order to obtain contextualized data on its efficacy in meeting the desired goal.	The EdTech that fulfills the necessary requirements and meets the desired goal moves into procurement and implementation.

Sub-steps



Recognize market or district signal for new EdTech product	Scope the gap between current products and identified needs	Conduct market research on available products	Identify products that meet basic technical and integration needs	Review products' fit and ability to deliver curriculum	Determine audience size for the product(s)	Test products through demo(s) or sample(s)	Pilot the product(s) in the classroom and at home, as needed	Gather and assess feedback from users	Conduct final vetting of product(s)	Make the purchase for a product	Implement and scale the product(s)

Sources of Evidence

Student data Peer districts Social media	Current product engagement data Teacher feedback	Peer districts Social media ISTE standards Academic literature Tech listservs Conferences Vendor reports	Rubric ISTE standards State standards Tech & privacy standards Peer districts	Curriculum alignment Supplemental availability	Case studies Vendor websites	Vendor websites/vendor representative	Vendor websites/vendor representative	Teacher feedback Student feedback Student formative assessments Usage data	In-house pilot data Rubric State standards and mandates	Vendor website/vendor representative	Vendor website/vendor representative Training resources

"Everything starts with the learners' needs."

"We have instructional programs that teach teachers and administrators how to correctly use program effectively and how to use data, we even teach students how to interpret their own data."

"The ISTE Standards have informed implementation practices."

"The evidence is used early on because there's so much out there that using it early helps us narrow down our options."

"We find a teacher per grade level who's willing to try it, facilitate feedback, and collect data on basic usage."

"We want to collect more formative assessment data to understand how grade levels change."

"The experience in-house is the most important piece of information."

"Products are useless without quality professional development and keep-up with it, can't have PD once and expect teachers to use it."

Drivers

Data-facilitated decision-making	District alignment on gap	Stakeholder diversity	Social norms	Communication across teams	Teacher engagement	Vendor openness	Availability to conduct pilots	Data-facilitated decision-making	Purchaser Empowerment	Deliberative thinking	Professional development

Barriers

Misattribution of need signal	Limited ability to interpret/use data for scoping	Limited awareness & accessibility for product info	Choice overload	Ambiguous evaluation criteria	Lack of buy-in from end-users	Zero risk bias	Lack of time	Unstructured feedback collection	Sunk cost of piloting	Groupthink	Resistance to change

	Recognize market or district signal for new EdTech product	Scope the gap between current products and identified needs	Conduct market research on available products
DRIVERS	**Data-facilitated decision-making** can help inform signal detection by enabling reliance on a greater number of diverse sources of information, thus facilitating a more accurate identification of what products are needed in the district	**District alignment** around EdTech need across decision-makers helps with scoping the challenge or gap to be addressed in a given adoption	**Stakeholder diversity** during the process of scoping for available products facilitates the likelihood of finding products that address the EdTech gap or need, by gathering diverse perspectives
	"We look into areas of concern: the data from previous years and teacher's individual concerns."	*"When the core curriculum and tech teams are in line, they are the most successful."* ***56%*** *of respondents indicate directors of curriculum play a decision-making role in product adoptions.*	*Only **47%** of EdTech respondents agree that a single decision-maker should have the final say on which EdTech to purchase.* *Technology directors, teachers, and principals are **most-cited stakeholders** in EdTech decision-making.*
BARRIERS	**Misattribution** of identifying where the exact need or market signal for a new EdTech product comes from can be reinforced where structures/key individuals are absent, which can skew signal recognition	**Limited ability to interpret/use data for scoping** inhibits the accuracy of finding the exact EdTech problem or need to be addressed, making it difficult to objectively inform market research	**Limited awareness and accessibility of product information** is compounded by the multitude of market signals, making it difficult for individuals to parse the information that they need for adoption
	"Never relate results to a specific product - you can't discount the classroom teacher in that process. The teachers that are instructing that class are different so can't compare across products."	*"We have instructional programs that teach teachers and administrators how to correctly use program effectively and how to use data, we even teach students how to interpret their own data."*	*"Depending on the product, we have different places to get information. We cast a wide net for feedback."* *Limited awareness of information/evidence availability cited as **biggest challenge** to using information/evidence.*
STAKEHOLDERS	Technology/I.T. Director Instructional leaders/coaches Teachers Curriculum leader/teams	Technology/I.T. Director Instructional leaders/coaches Teachers Curriculum leader/teams	Technology/I.T. Director Technology team

	Identify potential products that meet basic technical and integration needs	Review products' fit and ability to deliver curriculum	Determine audience size for the product (i.e., a few classes, a whole grade level, a school)
DRIVERS	**Social norms** of seeking peer district's review and experiences with products provides confidence in the products potential fit with the decision maker's own district context, expedites product identification	**Open and regular communication** across teams results in a more accurate understanding of the district's existing instructional materials landscape to ensure compatibility and seamless integration	**Teacher engagement** for testing EdTech increases the likelihood of the pilot being conducted to completion, contributing to more accurate and full feedback on EdTech efficacy and ability to close gaps
	"One of our biggest assets is that we meet with seven of the largest districts in North Carolina once per month to discuss EdTech." *"We take word of mouth on whether it works."*	*"The curricula team serves as a gatekeeper for any proposed EdTech products; they make sure it actually aligns with curriculum."*	*"We usually pilot with a department or group of grade teachers, get their feedback, and then make decisions."* *"We discuss it as a team and pilot with teachers and also involve the principal and superintendent when it's tech decisions."*
BARRIERS	**Choice overload** from interacting with many products that perform similar functions can impact the preliminary cut of EdTech products because the magnitude of options blurs the original gap or need to be addressed	**Ambiguous evaluation criteria** prevents deliberate assessment; further, the lack of a formal rubric with established criteria reduces the potential for alignment between the adopted product, established standards of quality, and district needs	**Lack of buy-in from end users** makes it more challenging to gather the required feedback in later stages of EdTech adoption, which is critical for final decision-making
	"There are just so many products out there." *"We also don't know what exists and sometimes, don't make the effort to find the research needed."*	*"There's no rubric - we want to develop more of those rubrics now as we start to get bigger."* *"No formal rubric, probably should."*	*"Getting everybody on board is hard; if you can achieve 85-90% of people on board, you're doing a good job."* *Only **25%** of respondents agreed that students are sufficiently engaged in the EdTech selection process.*
STAKEHOLDERS	Technology/I.T. Director Technology team	Technology/I.T. Director Curriculum instruction team Special education dept./team External consultants	Technology/I.T. Director Superintendents

	Test products through demo(s) or sample(s)	Pilot the product(s) in the classroom and at home, as needed	Gather and assess feedback from users
DRIVERS	**Vendor openness** to providing information about products, demos, and professional development are viewed as more valuable partners because they demonstrate an interest in the district's unique setting	**Conducting pilots** serves as a valuable step in adoption because the district is able to obtain in-house, highly contextualized data on the effectiveness and fit of the product in their own district	**Data-facilitated decision-making** by engaging stakeholders facilitates the necessary buy-in for implementation through context-specific data
	*Relationship with vendor was the **2nd most popular choice** for the most important information source on EdTech quality.*	*"We don't buy anything unless we use it; we pilot products to understand feasibility and it serves as a proof of concept."* ***84%** of EdTech respondents agreed that their district should piloting an EdTech product before purchasing.*	***77%** of EdTech respondents agreed that districts should consult externally provided information, data and/or evidence to inform EdTech product selection.*
BARRIERS	**Zero risk bias,** which circulates around new or unestablished products, generates reluctance among districts to pilot it for purchase since it's a product by which there are no experiential reviews; this can result in districts inadvertently missing high-quality products	**Lack of time** results in a rushed pilot process and reduces the potential of collecting feedback on the longer term efficacy of the product	**Unstructured feedback collection,** such as anecdotal conversations, do not provide robust insights compared to systematic collections, which can inadvertently skew adoption toward certain stakeholder preferences
	"We are not adopters if we are the first ones using it." *Peer recommendations was cited as the **1st choice** among survey respondents for most important information source on quality.*	*"Time is the biggest barrier to gathering relevant information on an EdTech product."* *Time was cited as the **2nd biggest challenge** to using information/evidence during EdTech adoption.*	*"Feedback from parents, teachers, and students; they're given surveys to provide feedback and there's no challenges."* *"If options are very few more focus groups are done with teachers and potentially students."*
STAKEHOLDERS	Technology/I.T. Director Technology team Teachers	Teachers Students	Technology/I.T. Director Technology team Teachers Students

Conduct final vetting of products

DRIVERS

Purchaser empowerment, the feeling of confidence in one's interpretation of EdTech products, supports the act of choosing the product to be purchased and implemented, that addresses the need or gap in the district

"We ask what students think of the product; it gives them autonomy and lets them know there's weight to their opinion."

"The product needs to work for the majority of people. Everybody has their own opinion on how things should work."

BARRIERS

Sunk costs concerns the high probability that piloted products end up being purchased because unless there are glaring issues with the product, districts may still move forward with purchasing, even if the product isn't the best fit

"If we're going to pilot, we're already at the point where we're ready to make a purchase and looking for final piece."

***One in two EdTech respondents** agreed that piloting usually leads to a purchase.*

STAKEHOLDERS

Technology/I.T. Director
Superintendents
Teachers

Make the purchase for a product

DRIVERS

Deliberative thinking that's scaffolded through formalized procedures helps districts make the purchase with confidence and under clear terms, arriving at a balanced and objective determination

"Faculty and staff get asked for feedback usually with the pilot by rating ease of use, which then helps us make the final decision."

BARRIERS

Groupthink, the desire to make decisions under the terms of achieving group harmony/avoid conflict rather than product's efficacy in addressing challenges or needs, can severely impact the quality of adoption

"I'm the final decision maker if it's under $25,000. If more, then the Board has to approve it but they practically accept what I recommend."

"If there's no major disagreement on a product, we move forward."

STAKEHOLDERS

Technology/I.T. Director
Superintendents (of Business)
Chief Financial Officer
School board

Implement and scale the product

DRIVERS

Professional development such as training teachers and staff on the how-tos and the capabilities of EdTech, helps to facilitate scaling of all magnitudes across a district

"We give the volunteer teachers training and give them support for the implementation."

*Teacher usability (e.g., professional development) ranked **2nd** in EdTech feature prioritization.*

BARRIERS

Resistance to change among teachers who strongly prefer familiar products, and thus are reluctant to adopt a new method of teaching due to subjective, personal switching costs, inhibiting the scaling of teaching

"Teachers are used to doing things a certain way, even new teachers are used to certain technology for personal use. It's hard moving from personal use to professional use to classroom use to students."

STAKEHOLDERS

Technology/I.T. Director
Technology team
Teachers
Students

EXHAUSTIVE JOURNEY

CORE CURRICULUM

Core Curriculum Adoption

Signal	Mobilize	Evaluate	Pilot	Winnow	Purchase
Determination that new instructional materials are needed in the district.	Gather individuals who will be involved in the adoption process to identify prospective materials.	Assess the preliminary selection of materials and compare it against district expectations, needs, and desires.	Introduce shortlisted curriculum into classrooms for testing and direct teacher feedback.	Weigh the different evidence collected throughout the process in light of district priorities and criteria.	Instructional materials are purchased and implemented into the district.

Sub-steps

Identify the need for new curriculum	Assess gap between current materials and needs	Recruit teachers and administrators to participate in evaluation	Search for materials that are available in the market	Identify key list of materials that will be evaluated	Develop or apply district lens and evaluation criteria	Conduct initial evaluations of the materials based on lens and criteria	Shortlist materials to a few contenders	Recruit teachers to pilot materials	Obtain sample materials from publishers	Test materials in the classroom	Analyze stakeholder feedback for the piloted materials	Compare the strengths and gaps of piloted materials	Make final vote among key decision-makers	Approve price of the materials and make purchase	Offer professional development to teachers

Sources of Evidence

State standards and lists Student performance data	Student performance & demo-graphic data State standards	Internal district evaluation rubrics	Peer districts Internet search Publisher fairs	Peer districts EdReports	State educational standards/lists Independent instructional reviews Evidence from learning sciences	Internal district evaluation rubrics	Independent instructional reviews State lists EdReports	Publisher information Piloting guides from the state	Publisher sample lessons & demo accounts	Observational evidence Teacher feedback	Student assessment grades Teacher feedback Student feedback Usage data	Rubrics with Likert scales Cultural competence test, Indian competence standards for evaluation	In-house data & research Rubric outcomes Publisher information	Publisher information	Publisher information Training resources Rubric outcomes

"The first step is identifying what's missing in our curriculum and where we can improve."	*"We reach out to publishers and ask for samples, then make a collection of samples to distribute to teachers."*	*"Formalized evaluation rubric was made by taking different components of EdReports, Illinois state website materials, and other rubrics."*	*"Publishers are helpful when they show clearly how the product aligns with standards and the district's rubrics."*	*"Feedback from pilots is gathered through Google forms and data comparison with non-pilot classrooms."*	*"If a product or budget changes, it usually replaces something else; we're dropping one product and adopting another."*
"We start by looking at student data and assessment; if not performing and showing growth, that's something we'd need to look at."	*"Through word of mouth or EdReports, we assess quality of resources we want. Then, we let vendors walk us through the resource."*	*"We look at how it aligns to industry standards, and in our school, how it aligns to state learning standards."*	*"We identify teachers to field test, and test all products over short period (e.g., six weeks for five lessons)."*	*"Engagement: finding ones that have materials that excite priority students is important."*	*"If there are additional questions or trouble, the publisher offers one hour of training to help with using items."*

Drivers

Responsivity to student success	Evidence-based culture	Experienced decision-makers	Social proofing	Efficient choice architecture	Expert power	Alignment	Authority bias	Stakeholder availability	Halo effect for publishers	Vendor support	Evidence-base d culture	Deliberative thinking	Purchaser empowerment	Budget	Professional development

Barriers

Institutional confounds	Unreliable data	Lack of communi-cation	Lack of vendor diversity	Sales representative turnover	Ambiguous evaluation criteria	Lack of rubric or formalized evaluation	Zero-risk bias	Lack of time	Lack of desired material	Sunk cost of piloting	Confirmation bias	Lack of flexibility	Groupthink	Inertia	Rigidity/lack of openness

	Identify the need for new curriculum	Assess gap between current materials and needs
DRIVERS	**Responsiveness to student success indicators** sparks decision to adopt new materials to close achievement gaps	**Evidence-based district cultures** that understand the problem or need to be addressed through relying on data can help to facilitate the process of honing in on need identification in a more accurate manner
	"We use data: annual data, trimester data, math test three times a year. Have now adopted a screening system to screen their student to see if they're on grade level, and if not, what to do."	*"To identify needs, we do it internally, through formative assessment, formative or summative data."* *"Data is a big thing in our district; we believe it's more accurate than just what another district or website says."*
BARRIERS	**Institutional confounds**, such as small adoption committees or renewals based on cyclical mandates, can impact adoption by taking precedence over renewals that are based on responsiveness to student needs	**Unreliable data** due to external forces that might confound key sources of evidence, like achievement scores, makes gap assessment challenging to accurately pinpoint
	"Every 5-6 years, should identify if curriculum is meeting student needs." **67**% *of respondents reported that new curriculum adoptions are driven by cycles.*	*"Our great results don't come from our schools; because kids come from middle to higher class families with better support systems – tutors and things like that – it muddles the data."*
STAKEHOLDERS	Adoption committee Teachers Students	Adoption committee Curriculum student advisory committee

	Recruit teachers and administrators to participate in the evaluation process	Search for materials that are available in the market	Identify key list of materials that will be evaluated
DRIVERS	**Experienced** teachers and administrators who are familiar with a district's process help to make the procurement procedure more efficient as they have a better grasp of what curriculum elements to critically consider to address the gap	**Social proofing,** the act of looking to similar districts to understand what works and what doesn't, can help support curriculum choices that are better tailored to the district	**Efficient choice architecture** such as filtering selections for technical specifications, compatibility with existing infrastructure, among other features, can help with narrowing in on materials more efficiently
	"To facilitate standards alignment among everyone, familiarity and experience with the product helps with winnowing."	*"The most useful evidence is talking to other schools to see their experiences."* ***80%** of core curriculum respondents agree that districts should consider peer recommendations in adoption.*	*"Starts with EdReports; has to be all green to meet minimum expectation."* *"EdReports helps us narrow our focus, instead of looking at whatever curriculum we can simply find."*
BARRIERS	**Lack of communication** between EdTech and curriculum teams can result in a poorer understanding of each others' needs, which can inhibit the search for curriculum that aligns with teams' needs	**Lack of vendor diversity** results in larger publishers, often those with a higher market share (e.g., MacMillan, Pearson) eclipsing alternative options available to curriculum purchasers; such alternatives may unknowingly be a stronger fit for a district's gap	**Sales representative turnover** can make it difficult to easily request for product information, suitable to a district's context, due to the lack of prior district relationships with sales representatives
	"Communicating [with teachers] is difficult - people don't read the emails we send them."	*"Real big publishers seem like that they have the majority of the market share and I wonder if that's good or bad."*	*"Used to talking to one person and then work with somebody else another year, transition isn't easy."* *"Developing a relationship is important so they understand who we are and what our needs are."*
STAKEHOLDERS	Teachers Administrators	Adoption committee	External decision-makers Adoption committee External consultants

	Develop or apply district lens and evaluation criteria	Conduct initial evaluations of the materials based on lens and criteria	Shortlist materials to a few contenders
DRIVERS	**Expert power** that's obtained by leveraging experts in the field who have deep knowledge about various content types can help with developing proper criteria related to adoption decisions, both in the present and in the future	**Alignment** within the district as to which criteria is most pertinent or important better supports an objective and efficient curriculum evaluation process	**Authority bias** given to experts' suggestions, in places like EdReports, can help sway high-quality shortlisting since districts often attribute greater accuracy to the information given by such experts, with the awareness of their completed research
	"We more rely on experts in the field – contractors or consultants – who have experience in different content areas."	*"Difference of opinion, difference of outlook, difference of teaching style is always a challenge - we developed a rubric to make it less subjective."* *Standards alignment ranked **1st** in core curriculum feature prioritization.*	*"Learned about EdReports by accident, motivated to use them due to them being research based."* ***60%** of core curriculum respondents reported they use EdReports in curricula adoption.*
BARRIERS	**Ambiguous evaluation criteria,** noticeable through a lack of district procedure or state-standards that aren't accessible, can make it difficult to decide on curriculum elements specific to district needs or gaps	**Lack of rubric or lack of formalized evaluation process** can lead to decision-making becoming very idiosyncratic and unstandardized, stretching the time and resources needed to facilitate curriculum adoption	**Zero risk bias,** which circulates around new or unestablished materials, generates reluctance among districts to pilot it for purchase since it's a material that has no reviews; this can result in districts inadvertently missing high-quality products
	"We are pretty decentralized and are looking to getting into more close alignment." *Standards alignment ranked **1st** in core curriculum feature prioritization.*	*"I think that's tough - you have some folks that are very standards-driven, and some folks are more individualized- or instruction-driven, and then you have that diversity focus, and they're more focused on that."*	*"Teachers are not risk takers or first adopters, you have to come in with a product that solves a problem is reliable, 'has to be a Toyota and not the first iteration of a Tesla.'"*
STAKEHOLDERS	Adoption committee External consultants County office	Technology team/I.T. Director Adoption committee Special Education specialists	Adoption committee

	Recruit teachers to pilot materials	Obtain sample materials from publishers	Test materials in the classroom
DRIVERS	**Stakeholder availability** of having teachers available and open to testing new instructional materials in the classroom, is a catalyst to starting and fully completing pilots, and eventual adoption	**Halo effect**, a positive impression from supportive publisher sales reps who may have prior established connections. can steer the district towards preferring materials – that may be of high-quality – offered by that publisher	**Vendor support** during pilots maximizes the use of the product, which maximizes the satisfaction and confidence that the district has in their adoption process for a particular product
	"Not enough human capital - not enough teachers." *"Biggest challenge: time. A lot of teachers just don't have the time to sit down and try out products."*	*"Feel like a lot of the sales reps I know them well, I can call them up and say 'hey, what do you got.'"*	*"It is important how comprehensive and caring the customer service department is."*
BARRIERS	**Lack of time** can severely impact piloting timelines, and not having enough time may confound perspectives on the efficacy of the product	**Lack of desired material,** such as curriculum with specific qualities, may inadvertently pressure purchasers to have to consult other sources that may be of lower quality	**Sunk costs** relate to the probability of piloted materials being adopted because the nature of pilots are often intended to confirm its efficacy in the district context; preconceived efforts or perceptions can be difficult to change among decision-makers
	"Are teachers really having the time to really try them?" *"Teachers don't want to work overtime to try out new things."*	*"While culturally responsiveness of current curriculum exists, it's hard to find something comprehensive. We might find something that checks boxes, but end up still needing to find supplement."*	***One in two** core curriculum respondents agree that the curriculum piloted is also the one adopted.*
STAKEHOLDERS	Curriculum coordinators, Teachers	Publishers, Curriculum coordinators	Teachers, Students

	Analyze stakeholder feedback for the piloted materials	Compare the strengths and gaps of piloted materials	Make final vote among key decision-makers
DRIVERS	**Evidence-based district cultures** are more likely to have the appropriate tools or procedures to correctly calibrate measures of instructional material efficacy and gather feedback on experiences with the materials	**Deliberative thinking** that's scaffolded through formalized procedures helps districts make the purchase with confidence and under clear terms, arriving at a balanced and objective determination	**Purchaser empowerment,** especially among senior, final decision-makers, can help to reinforce confidence in opinions, evaluations, and the subsequent purchasing decision
	***96%** of core curriculum respondents agree that their district should consult data or evidence to inform core curriculum decision.*	*"The curriculum advisory teams pilots at least two sources and ranks them using a Likert scale."* *"The rubric is reviewed to ensure the curriculum meets all of their requirements, and the teams further narrow on options."*	*"Could go to business office of superintendent when budget is to be adjusted but it's always my recommendation that comes up the chain."*
BARRIERS	**Confirmation bias,** the selective examination of information that validates opinions, can incorrectly skew adoptions to products that may not be best suited to resolve the district gap or need	**Lack of customization flexibility** for instructional materials limits the district's vision to have content that suits their unique needs and challenges, within their context, limiting the scope of materials that they can consider for adoption	**Groupthink** can arise when individuals don't have space to develop their own opinions on materials, resulting in similar preferences because their judgment is informed by proximity with others; this leads to a lack of diverse perspectives contributing to adoption
	"We don't necessarily use formalized data - more so perception data."	*"Customization is important - don't need to keep reinventing the wheel to get something incremental out of it."*	*"Final decision is by consensus - team works together so much that they often have similar opinions."*
STAKEHOLDERS	Adoption committee	Adoption committee	Principals Superintendents Assistant superintendents School board

	Approve price of the materials and make purchase	Professional development offered to teachers
DRIVERS	**Budget** provides districts with the financial freedom to approve adoptions, with a lesser concern on contents that might need to be cut; this provides a luxury of faster adoptions, especially when there are critical gaps	**Professional development** for core and supplemental materials, especially those delivered via technology, helps increase teacher confidence as related to implementation
	"Paying for access is an issue. I don't really find orgs or big organizations that often, that really understand what we're trying to do and are just looking to make money as much as they can and are not as responsive as they need to be."	*"Professional development is the biggest thing; before, many of them just did not take the time to learn it, but through the pandemic they HAD to learn it and learn it fast - this gave better confidence to use technology."*
BARRIERS	**Inertia,** the subjective switching costs perceived by individuals when considering new adoptions, may result in the inclination to stick to the status quo which may delay adoption and subsequent scaling	**Rigidity or lack of openness** to novel materials are to be anticipated because teachers are used to teaching from certain materials; this may inhibit curriculum scaling across the district
	"Teachers do not like change - as much as they want to be flexible, they still push back against learning something new."	*"It does not matter if a product is ten times better, you always have a small group that does not want to change."* *"There's incredible resistance within schools and cultures around improvement."*
STAKEHOLDERS	Superintendents School board	Instructional coach Publishers sales representative