

**Better Together:** How inclusive design as a policy process impacts stakeholder understanding, ownership, and engagement in assessment and accountability innovation – Allen County, Kentucky Case Study

## **APPENDIX B: Methods and Sample**



We employed a carefully considered mixed-methods approach including semi-structured interviews and focus groups; surveys; distributed ethnography; and youth participatory action research. Methods were selected to maximize our ability capture nuances beyond our initial hypotheses, and to yield trustworthy claims about constructs like inclusion, understanding, trust, and ownership, which are subject to individual perception and cultural interpretation.

Importantly, because members of the research team are not local to Allen County, and therefore do not share the unique history or lived experiences of this small rural community, we felt it essential to hold space for local community members to have meaningful voice in the shaping the research plan. Collaborating with the community in this way also upholds our Principles of Equity-Seeking Research and Evaluation and our value of reciprocity with research participants. Therefore, our very first step was to recruit and launch an Allen County Design Crew (ACDC) comprised of four members of the district leadership team (including Superintendent Hamby), one school administrator, one teacher, two parents, two business and community leaders, and four high school students. The ACDC advised the research team at all phases of the project, including revising and unanimously approving the revised research questions; co-determining research methods; designing and piloting data collection instruments; advising the dissemination plan for data collection; participating in a “Data Party” to collaboratively analyze data; and reviewing, revising, and approving this [final report](#).

## Qualitative Methods

### Data Collection

Between January-March 2025, we conducted in-person, role-alike focus groups and virtual interviews with 35 adult school stakeholders including teachers, administrators, instructional coaches, district leadership team members, and business and community leaders. With input from the ACDC, we derived protocol questions from our research questions and tailored them to the unique perspectives of each role group. Members of the research team facilitated each interview or focus group in a semi-structured manner, allowing conversation to flow while ensuring relevance to our research questions. We took notes, recorded audio using Zoom, and also used Zoom to transcribe the audio recordings. In a minority of cases where audio quality was low and Zoom transcription proved insufficient, we used human transcription through Happy Scribe.

### Sample

We selected participants to prioritize individuals who had contextual knowledge and personal experience with Allen County’s assessment and accountability reforms. With input from the ACDC, we generated an initial invitation list of 47 people including a mix of school administrators and coaches, teachers, business and community leaders, and central office staff who had been directly involved in the design and/or implementation of the reforms. Ultimately, we engaged 35 individuals, for a combined response rate of 74%.

Our interview and focus group sample included the following distributions by gender and roles:

| Gender |    |     |
|--------|----|-----|
| Female | 26 | 74% |
| Male   | 9  | 26% |

| Current Role       |    |     |
|--------------------|----|-----|
| Teacher            | 14 | 40% |
| Admin/Coach        | 13 | 37% |
| Business/Community | 3  | 9%  |
| ACS CentralOffice  | 5  | 14% |

While we did take steps to ensure representation across a variety of dimensions (such as stakeholder role and representation of Exceptional Child Education and low-income families' perspectives), the resulting sample does not represent the full Allen County population—nor was it intended to. Because our qualitative methods privileged first-hand accounts of designing or implementing the assessment and accountability reforms, the limited knowledge we might have gained by applying these methods across the board (regardless of individual's prior knowledge of or participation in the reforms) would not justify the cost and burden of guaranteeing a fully representative sample.

One important limitation is the relatively low representation of business and community leaders in our qualitative methods sample. While we did speak with other business and community leaders in our kickoff meeting, pilot meeting, and Data Party, we were challenged to recruit more of them (who were not also ACS staff or parents of ACS students) to participate in interviews or focus groups. We recommend that further research include intentional recruitment of business and community leaders to strengthen our understanding of their perspectives as a group.

## Approach to Analysis

We developed an initial code set from our research questions and underlying hypotheses. We selected one longer transcript that each member of the research team coded as a calibration exercise. Following this, we further refined the code set and used it to code the remaining transcripts. Once all transcripts were coded, we collaboratively identified themes and conducted more in-depth analysis, including code counts, code co-occurrence, and deeper thematic analysis. We continued to conduct cross-team calibration throughout the analysis phase.

## Family Survey

### *Data Collection*

With input from the Allen County Design Team, we constructed a brief survey probing the extent to which parents and family members of current ACS students were aware of the district's Patriot and its new emphasis on hands-on, project-based learning and assessment; and the extent to which they feel this direction matched their needs and priorities for their child. We also asked how much input they felt they had in these changes, and how much confidence they have in the district overall.

Because we expected that not all parents would be familiar with the language of “project-based learning,” we enlisted Allen County-Scottsville High School students and a teacher to create a short TikTok-style background video which was embedded in the survey (CIE, 2024).

We disseminated the survey in-person in conjunction with student showcases and exhibitions of learning hosted at James E. Bazzell Middle School on November 7, 2024; Allen County Intermediate Center on January 7, 2025; Allen County-Scottsville High School on April 4, 2025; and Allen County Primary Center on April 17, 2025. The survey was also distributed to all parents online through Parent Square on March 13, 2025.

### *Sample*

Altogether, we surveyed 330 parents and family members of current ACS students. Because several respondents reported having multiple children in the district, our family sample represents a combined total of 465 students, or roughly 15% of the Allen County Schools student population.

Respondents were predominantly white with only a small percentage of Hispanic/Latino respondents (4%), matching 2024 U.S. Census data for Allen County. Unlike population demographics, the vast majority of respondents were female (82%). Roughly half were between the ages of 30-39, and one-third were between 40-64 years old. Thirty-seven percent represented families eligible for free and reduced-price lunch, approximating (although slightly lower than) the actual percentage of eligible families enrolled in the district (44%). The sample included family members with children in every grade span from preschool to 11th-12th grade, with the highest concentrations in 2nd-3rd grade (38%) and 4th-6th grade (31%).

Using chi square tests to determine the statistical representation of our sample, we determined that our sample is statistically representative by race, but not by gender, free and reduced-price lunch (FRL) eligibility, or enrolled school:

- Gender: Compared to the county population, our sample over-represents female perspectives (82% female respondents compared to 51% female residents). This is likely because the vast majority of data was collected in-person at the schools' student exhibition nights, which we observed were attended by far more females than males.
- FRL eligibility: Our sample under-represents families eligible for FRL (37% observed eligible compared to 44% actually eligible). It is important to note that one in four survey respondents answered "Not sure / Not applicable / Prefer not to answer" when asked about their FRL eligibility, masking the possibility that some of these respondents are indeed eligible. Nevertheless, given the well-documented challenges to capturing data from low-SES segments of any population, we feel comfortable that our sample approaches representation.
- Enrolled school: Our sample over-represents Allen County Primary Center students (49% of our sample compared to 29% of the district's actual enrollment) and under-represents Middle and High School students (respectively 8% and 16% of our sample, compared to 15% and 30% actual enrollment). This disparity is likely owed to two factors. First, the Primary Center exhibition night boasts the highest attendance of all Allen County schools – often an order of magnitude greater than the other schools. Therefore, by collecting data at exhibition nights, we were poised to oversample Primary Center parents. Second, the research team was not able to travel onsite for the data collections at the Middle and High Schools. Instead, school staff disseminated the surveys on our behalf, but did so as more of an afterthought than a primary intention, resulting in low response rates.
- Special Education: We did not ask parents whether their child had an IEP, therefore we are unable to comment on whether our sample represents the population of students with special needs.

## *Approach to Analysis*

Data from across the data collection events were merged into a single database for analysis and cleaned by clearing formatting, removing irrelevant data, standardizing language and capitalization, and ensuring structural consistency.

We used descriptive analysis to gain a “macro” sense of our data; correlation analysis to determine the relationship between sets of variables; and T-tests to determine the statistical significance of differences observed between any two groups of data.

## **Distributed Ethnography using SenseMaker**

### *Data Collection*

With input from the Allen County Design Team, we designed a SenseMaker framework inviting respondents to share an experience related to the prompt, “In 2-3 sentences, please tell us about a memorable moment or interaction you personally experienced (positive or negative) that is related to Allen County Schools’ efforts to create hands-on, real-world learning opportunities, exhibitions of learning, or a data dashboard.” We included follow-up questions that were related to our central research question and/or probed our underlying hypotheses, such as inquiring about the extent of inclusion, empathy, co-creation, or reciprocity present in the experience respondents just shared, or the impact of that experience on outcomes such as satisfaction, confidence, or ownership.

Importantly, the follow-up questions probed these constructs in an oblique manner using dyads and triads that intentionally embedded ambiguity and negotiation between constructs, so as not to lead respondents toward “better” or more socially desirable responses (Van der Merwe, 2019). This approach also allowed us to capture layers of nuance that are otherwise unsurfaced in a typical Likert-scale question. Each question also reminded respondents to answer only thinking about the singular experience they just shared, thereby avoiding the revisionism or reductionism that can occur when asking people to rate constructs “overall” or over a period of time—especially important for our constructs of interest such as inclusion, empathy, trust, or ownership that are deeply subjective and context-specific.

The SenseMaker framework included a final set of questions to help us index and view patterns in the stories, including emotional tone of the story, how frequently stories like it occur, when did it occur, and demographic information about the respondent.

The SenseMaker framework was made available online and in a paper-and-pencil version. Online respondents were given the option to type out their experience or to record audio.

We intended to collect SenseMaker responses from a diverse cross-section of community stakeholders, both those who attend the district’s L3 Coalition meetings and those who do not. However, our access was greatly limited when Superintendent Travis Hamby experienced a major health event and was unable to convene the Coalition at all during our data collection period. We also experienced hesitation from the district coordinators whom we depended on for access to broader stakeholders, who felt that the assessment and accountability reforms were so new that it would not be fruitful to engage respondents who were not already connected through the L3 Coalition. Therefore, we pivoted and collected SenseMaker responses in-person in conjunction with our own data collection events between August, 2024, and April, 2025, and at the Data Party.

One important limitation to our SenseMaker data collection is that respondents who are new to SenseMaker tend to share stories that are positive in tone, especially when they feel personally connected to the sponsor or recipient of the study findings, as noted by other researchers well-versed in SenseMaker (Anna Panagiotou, personal correspondence). This effect can be mitigated by asking respondents to share multiple stories; by allowing respondents to read others' stories before sharing their own; and by having a large enough sample that the factor of personal connection is removed.

Indeed, we found a bias toward positivity in our sample: only one respondent shared a negative story and all others were either positive or very positive in tone. We attribute this limitation to the challenges we faced in gaining access to our target sample. If we could have engaged each respondent multiple times to tell multiple experiences, or if we had been able to reach a much wider circle of respondents, we might have mitigated this tendency. Importantly, we have been mindful of this bias in our analysis, being cautious not to overly ascribe meaning to the overwhelming positivity of responses, and couching our findings in the acknowledgement that the SenseMaker dataset skews positive in tone.

### *Sample*

We collected 63 SenseMaker responses through a mix of online and paper-and-pencil modalities. While we intended to collect more than twice this number, our opportunities for data collection were impeded as described above. The resulting sample, while smaller than we had hoped, nevertheless produced statistically significant findings as described below.

Our sample included the following demographics:

| <b>Gender</b>        |    |     |
|----------------------|----|-----|
| Female               | 43 | 68% |
| Male                 | 19 | 30% |
| Prefer not to answer | 1  | 2%  |

| <b>Race/Ethnicity</b> |    |     |
|-----------------------|----|-----|
| White                 | 62 | 98% |
| Prefer not to answer  | 1  | 2%  |

| <b>Age</b>           |    |     |
|----------------------|----|-----|
| 0-18                 | 5  | 8%  |
| 19-29                | 3  | 5%  |
| 30-39                | 17 | 27% |
| 40-64                | 34 | 54% |
| 65+                  | 3  | 5%  |
| Prefer not to answer | 1  | 2%  |

| Free and Reduced-Price Lunch Eligibility     |    |     |
|----------------------------------------------|----|-----|
| Yes FRL                                      | 1  | 2%  |
| No FRL                                       | 51 | 81% |
| Not sure/Not applicable/Prefer not to answer | 11 | 17% |

| Role (may select more than one)                   |    |     |
|---------------------------------------------------|----|-----|
| Student                                           | 5  | 8%  |
| Family of a student                               | 18 | 29% |
| Business or community member                      | 8  | 13% |
| School-based educator                             | 25 | 40% |
| District faculty                                  | 26 | 41% |
| College, community college, or university faculty | 2  | 3%  |
| Other                                             | 2  | 3%  |
| Prefer not to answer                              | 2  | 3%  |

As with our sample for our qualitative methods, we selected participants to prioritize individuals who had contextual knowledge and personal experience with Allen County's assessment and accountability reforms. As a result, the sample does not represent the full Allen County population—nor was it intended to. Because SenseMaker seeks first-hand accounts of designing or implementing the assessment and accountability reforms, the limited knowledge we might have gained by applying these methods across the board (regardless of individual's prior knowledge of or participation in the reforms) would not justify the cost and burden of guaranteeing a fully representative sample.

### Approach to Analysis

One of the strengths of SenseMaker as a methodology is its ability to mitigate bias in its approach to analysis through disintermediation: that is, respondents self-signify the meaning of their experiences through the follow-up questions that they responded to in the context of the story they shared. Our research team did not need to interpret meaning since respondents had already done this for us.

We performed further statistical analyses using the SenseMaker Workbench application, which allowed us to visualize patterns in the data, calculate arithmetic and geometric means, visualize topographies, and determine correlations between questions and variables in the framework. The Workbench also allowed us to zoom in on clusters of stories, and to interrogate the content and contexts of the associated stories.

To test the impact of variables with discrete categories on observed outcomes, we used chi-square goodness of fit tests, using  $p < 0.05$  as the threshold for significance.

## Youth Participatory Action Research

See [Appendix A](#) for more detail on methods and sample for the Youth Research Team.

### Participatory Analysis: “Data Party”

Our analysis of qualitative, quantitative, and SenseMaker data was informed through participatory analysis in collaboration with 30 Allen County stakeholders at a “Data Party” hosted in-person on April 29, 2025. Participants drew most heavily from school administrators and coaches, but also included central office staff, teachers, parents, and students.

For each of our research questions and sub-questions (including the YRT questions), we compiled relevant preliminary data (including raw interview excerpts and quick analyses of survey or SenseMaker data) and presented them in a double-sided “data placemat.” Over two rounds of participatory analysis, participants self-selected a table featuring one of the research questions and reviewed its data placemat. First individually and then in group conversation, participants discussed what surprised them, what conclusions they drew, what additional context is important to understanding the data, and what questions came up. Then, in role-alike groups, participants discussed key take-aways and recommended next steps for the research team, the district, and for themselves or others in their role.

Data Party conversations were recorded and transcribed to inform our final analysis and recommendations.



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