Cultivate

Early Insights from the Revalidation of the *Cultivate* Survey: Learning Conditions Shape Students' Beliefs about Being Valued

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INTRODUCTION

Students' experiences of their learning conditions are critical levers for shaping their learning-related beliefs, which drive their long-run social and academic development.[1] To this end, Chicago Public Schools (CPS) has administered *Cultivate*, a rigorously developed student voice survey that captures students' experiences of their learning conditions, twice annually (fall and spring) since the 2022-23 academic year. The *Cultivate* Survey is grounded in extensive research on youth development, finding that: 1) young people are expert reporters of their own experiences,[2] and 2) leveraging student insights and partnership is important for creating spaces where they can thrive.[3]

Cultivate is designed to enhance the work that is being done in schools to strengthen adult-student relationships and promote student learning and well-being. It equips educators and students with a tool to help them work together to improve classroom learning conditions. The survey gathers students' experiences of nine dimensions of classroom instructional environments: Meaningful Work, Learning Goals, Well-Organized Classroom, Supportive Teaching, Feedback for Growth, Classroom Community, Student Voice, Teacher Caring, and Affirming Identities. It also gathers students' learning-related beliefs about themselves—including their beliefs about being valued—which are shaped by these learning conditions.

This research summary shares preliminary findings from the first two years of the administration of the *Cultivate* Survey in CPS. We address the following questions:

1. To what extent does *Cultivate* **accurately and reliably measure** students' experiences of learning conditions in CPS?

2. To what extent do changes in students' experiences of learning conditions **predict changes in students reporting *I am Valued*** (that is, a composite of the Belonging and Identity Safety measures)?

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[1] Bryk & Schneider (2002); Farrington et al. (2012); Porter, Jackson, Kiguel, & Easton (2023).
[2] Bandura (2006); Eccles, Wigfield, Harold, & Blumenfeld (1993); Wigfield & Eccles (2002); Porter et al. (2023); Farrington, Porter, & Klugman (2019).
[3] Mitra (2004); Checkoway (2011).

Findings Preview

➢ The *Cultivate* Survey reliably captures the learning conditions it was designed to measure for *all* students. There is no evidence of bias in how the survey functions across student groups.

➢ Within an academic year, improving students' experiences of their learning conditions from fall to spring predicts substantial and positive changes in how valued students feel. Prior research has demonstrated that feeling valued in school is strongly tied to students' future attendance, high school graduation, and college-going.

➢ These findings mean that incremental within-year shifts in students' experiences of learning conditions are measurable using *Cultivate*. And these within year shifts **positively shape critical student beliefs that have long-run returns to academic and social development**.

STUDY DETAILS

Data

● Sample: 504 schools in 2022-23 and 587 schools in 2023-24 in Chicago serving students in grades 5-12. The sample includes neighborhood, selective enrollment, charter, options, and alternative schools.

● Data: *Cultivate* student survey responses (learning condition measures and *I am Valued* learning belief measure) collected in 2022-23 and 2023-24.

Reliability: *Cultivate* Measures Capture the Experiences of All Students

A key priority in the development of *Cultivate* has been ensuring its validity, reliability, and applicability across all students in the district. *Cultivate* has undergone a rigorous development process, involving multiple phases of design, testing, and refinement.[4] This process has included input from educators, students, and other stakeholders with expertise in survey design, psychometrics, learning and development, and education practice. The process has also leveraged data from diverse student populations to ensure the measures are able to meaningfully capture the experiences of all students. Our findings from the revalidation analyses presented below confirm that—consistent with the findings from the original validation—*Cultivate* measures capture the 'true' beliefs and experiences of student respondents, rather than reflecting patterns of random or systematically biased responses.

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[4] e.g., Farrington, Porter, & Klugman (2019); Farrington & Levenstein (2014).

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Table 1. Reliability of *Cultivate* Learning Condition Measures

Cultivate Learning Conditions Measures	Reliability
Meaningful work	0.84
Learning goals	0.86
Well-organized classroom	0.82
Supportive teaching	0.86
Feedback for growth	0.87
Classroom community	0.86
Student voice	0.86
Teacher caring	0.84
Affirming identities	0.82

Note: Each cell represents the Rasch person reliability index and indicates strong reliability for each learning condition measure. A coefficient of 0.80 or higher is considered to be strong evidence of reliability.

Cultivate learning condition measures demonstrate exceptional measures properties—reliabilities over 0.70 are evidence that a measure consistently captures the intended dimension of classroom conditions. Using this threshold, Table 1 shows that **all measures on the surveys are reliable and sensitive measures of students' experiences of the learning condition being asked about**. Strong reliabilities set the foundation for detecting differences in students' experiences, including differences between two or more students' experiences, and differences in the same student's experience over time.

Additionally, analyses revealed no systematic bias in how the survey items functioned across student groups based on race/ethnicity, gender, economic disadvantage, learning differences, or English Learner status. This finding means that **the survey questions worked in the same way for all student groups**. It also means that the questions were well-matched to the diverse population—that is, the questions were not easier or harder to endorse for one group compared to another because of their background.

Predictive Validity: *Cultivate* Measures Predict Students' Beliefs about Being Valued

To examine the predictive validity of *Cultivate*, we analyzed the relationship between learning conditions and students' experiences of feeling valued. Specifically, we analyzed the predictive power of both 1) individual learning condition measures and 2) a composite measure of overall learning environment (the average of the nine learning condition measures). We assessed the extent to which changes in students' experience of learning conditions from fall to spring predicted changes in feelings of being valued over the same time frame. The measure of feeling valued includes items that capture student Belonging and Identity Safety (all items available in the Appendix).

Table 2. Predictive Validity of Cultivate Learning Condition Measures

Learning Condition Predictor	Middle Grades Percentile Point Increase in: *I am Valued*	High School Percentile Point Increase in: *I am Valued*
Composite of All Learning Conditions	19.4	20.5
Meaningful Work	10.6	13.0
Learning Goals	11.1	13.8
Well-Organized Classroom	11.2	14.2
Supportive Teaching	12.7	15.1
Feedback for Growth	12.5	15.2
Classroom Community	15.0	16.9
Student Voice	13.4	15.7
Affirming Identities	13.2	15.8
Teacher Caring	13.5	15.7

Note: Each cell represents the change in percentile ranks in students' reports of feeling valued as a result of a standard deviation change in the students' experience of a particular learning condition from the fall to spring administration of the survey. Analytic models account for student and school characteristics. All results are significant at the $p<.001$ level. Models controlled for fall learning condition values, fall learning belief values, student-level, and school-level covariates. Student-level covariates include year of administration, school subject, race/ethnicity, gender, diverse learner status, family economic disadvantage, and EL status. School-level covariates include school size, charter status, region of city, and school composition based on identified student characteristics. A school-level random effect is also included.

> The results provide compelling evidence that students' experiences of their learning conditions, as assessed by *Cultivate*, significantly predict beliefs about being valued—which are, in turn, strongly tied to grades, attendance, and test scores.[5]

The results in Table 2 show that positive changes in students' experiences of classroom conditions yield large and significant shifts in students' experiences of feeling valued. For example, on average, a middle grades student who had a one standard deviation increase in their experience of Classroom Community from the fall to spring survey would be expected to move up 15.0 percentiles (i.e., from the 47th to the 62nd percentile on the *I am Valued* learning belief measure). In a related set of analyses, we found that **students' experiences of learning conditions also strongly and significantly predicted their self-reports of engagement in school**.

Together, these findings support the use of *Cultivate* as a survey tool that can be used to inform school improvement efforts and foster more relationship-centered, supportive, and engaging learning environments for all students.

CULTIVATE: A FRAMEWORK FOR ACTION

Cultivate is more than just a measurement tool; it is a framework for action. By providing schools with valid and reliable information on student experiences, the survey provides actionable data that can be used to identify areas of strength and areas for continuous improvement in the learning environment.

Cultivate can be used to enhance and amplify the valuable work already happening in schools, providing a structured, evidence-based resource for educators and students to realize their aspirations for rigorous, relationship-centered, and supportive classroom and school environments.

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APPENDIX

Table A. *I am Valued* Items

I AM VALUED

Identity Safety | Belief that one's identity is an asset, rather than a detriment, to a learning community

How TRUE are the following about your [TARGET] class:
Not at all true, A little true, Somewhat true, Mostly true, Completely true

- I feel like my background and identity are valued in this class
- I feel like this class brings out the best of my talents and abilities.
- I feel like my teacher really knows me

Belonging | Belief that one fits in with peers in class

How TRUE are the following in your [TARGET] class:
Not at all true, A little true, Somewhat true, Mostly true, Completely true

- I feel like I belong when I am in this class.
- I feel connected to my classmates
- I feel supported to participate in this class.

Note: This brief reflects a commitment to providing timely and relevant insights to inform ongoing discussions and decision-making. As such, it has undergone an expedited Consortium review process. It has not been subject to the full review by Consortium research and communications staff that accompanies official Consortium publications. The content is solely the responsibility of the authors.