How to Meet Our Students Where They Are: A Student Opinion Survey and Process for an Asset-Based Educational Ecosystem

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Introduction

In higher education, student feedback is a critical process that allows instructors to improve their teaching, pedagogy, and classroom environment [1,2]. Especially at institutions serving marginalized students, feedback can be crucial, as normative culture and teaching practices can create barriers to student success. Many universities employ student opinion surveys, or evaluations, at the end of a semester, as a method for students to provide feedback [3]. Depending on the items included in surveys, different aspects of the educational experience can be observed and changed. Institutions looking to improve equitable education may need different surveys than institutions simply gauging student performance.

This study reports the results of an ongoing project developing and evaluating a student feedback mechanism as part of a larger project, Eco-STEM, which aims to improve engineering education at a Hispanic Serving Institution by focusing on meeting students where they are [4]. The Student Opinion Survey aims to gauge the classroom environment along three ecosystem measures: *climate*, *structure*, and *vibrancy* [5], broken into a Values survey, given at the beginning of a semester, and an Experiences survey, given at the end. Taken together, the Student Opinion Survey is intended to help instructors learn about their students, tailor their instruction, and receive feedback on how successful they were at doing so.

Our results build on a previous study, in which we provided evidence of validity of an earlier pilot of our Student Opinion Survey [6]. Based on that previous work, we modified the existing survey, and in this work, we reinvestigate validity with a new sample of student data. We additionally share results from the Values and Demographic surveys, as well as one instructor's Experiences survey results from their class and their reflection on how the survey and process enabled them to better "meet students where they are."

We find that our students most highly value traditional aspects of education – structure and clarity – over elements like group work, bringing their experience into the classroom, or having challenging classes. We also find that the majority of our students face difficult material challenges: low household income, long commutes to campus, and working jobs outside of school. Given our commitment to creating equitable education through healthy educational ecosystems, these results provide us with useful feedback on where students are, as well as confidence that our Student Opinion Survey is a beneficial tool to get us there.

Ecosystem Student Opinion Survey

Survey Development and Refinement

This Student Opinion Survey was developed based on previous work on a Peer Observation Tool and Process (POTP) centered around an educational ecosystem design including three constructs: climate, structure, and vibrancy [5]. Previous work describes the survey development in more detail, as well as the POTP [6].

Briefly, classroom climate describes the degree to which a classroom is supportive, inclusive, and recognizes cultural assets of students. Structure captures the degree to which the activities and procedures are clear, helpful, and flexible, meeting students "where they are." Vibrancy indicates the degree to which the course and instructor solicit enthusiastic activity and high levels of engagement. Each construct is measured by several survey items scored on a 5-point Likert scale.

The opinion survey is split into two questionnaires: a *Values Survey* and an *Experiences Survey*. The Values Survey is designed to be administered to each student at the beginning of their first semester, allowing them to express what they desire for their education. The Experiences Survey is given at the end of each semester in each course, allowing students to provide their perspective on the implementation of the same survey items from the Values Survey in each of their courses that semester.

In [6], we detailed the Values and Experiences surveys, as well as a Confirmatory Factor Analysis (CFA) gauging the degree to which our data fit our intended model. Based on those results, we condensed both surveys, removing items that scored lowest in CFA as well as those we saw as duplicating information. For this work, we piloted this condensed survey, displayed in Table 1.

Proposed Construct	**Item Code**	**Values Survey Item**	**Item Code**	**Experiences Survey Item**
		In your classes, how important is it that your professor... [Measured on 5-point Likert from "Extremely important" to "Not important at all"]		Indicate your agreement with each of the following statements about the class environment. [Measured on 5-point Likert from "Strongly agree" to "Strongly disagree"]
Climate	VC1	...helps you feel comfortable asking questions and making comments in class?	EC1	I felt comfortable asking questions and making comments in class.
	VC2	...believes in your ability to learn and succeed?	EC2	My professor believed in my ability to learn and succeed.
	VC3	...makes you feel like part of the classroom community?	EC3	I felt like I was a part of the classroom community.
	VC4	...values you for what you bring to class through your own personal experiences, inside and outside of class?	EC4	My professor valued what I brought to class through my own personal experiences, inside and outside of class.
Structure	VS1	...clearly explains what you are expected to learn in the class?	ES1	I understood what I was expected to learn in the class.
	VS2	...clearly explains the work to be done on all assignments/activities?	ES2	Work to be done on all assignments/activities was clearly explained.

	VS3	...provides assignments/activities that are useful in helping you learn the course material?	ES3	The professor's teaching style supported my learning.
			ES4	The professor used examples that were relevant to my own life and experiences.
	VS4	...provides feedback that is helpful for your learning?	ES5	The professor provided feedback on my work that helped my learning.
	VS5	...makes the class challenging in a way that is just right	ES6	The class was challenging in a way that was just right.
Vibrancy	VV1	...is excited about the subject and shares this excitement with the class?	EV1	I could tell my professor was excited about teaching the class.
	VV2	...uses in-class problem solving, and other interactive approaches?	EV2	In class, we used interactive approaches beyond just traditional lecture to learn the material.
	VV3	...creates an environment where you interact with and learn from other students?	EV3	The instructor created an environment where my classmates and I learned from each other.
	VV4	...encourages students to think critically and question assumptions?	EV4	I felt encouraged to think critically and question assumptions.
	VV5	...relates the course material to real-world applications?	EV5	My professor connected what we did in class to current social and/or cultural events and issues.
	VV6	...encourages students to take time to reflect on their own learning?	EV6	My professor encouraged me to take time to reflect on what and how I was learning.

Table 1: Survey items for both the Values and Experiences Surveys, categorized by their proposed ecosystem constructs of climate, structure, and vibrancy.

Each set of Likert scale questions for climate, structure, and vibrancy were also accompanied by open response questions, listed in Appendix A.

We also gave participants a *Demographic Survey.* In the full implementation of the Student Opinion Survey at our institution, we intend for the Demographic Survey to be administered at the beginning of a student's first semester, along with the Values Survey, with the opportunity to update their responses each subsequent semester. Due to logistical constraints, in this survey pilot, we distributed the Demographic Survey twice, with both the Values and Experiences Survey.

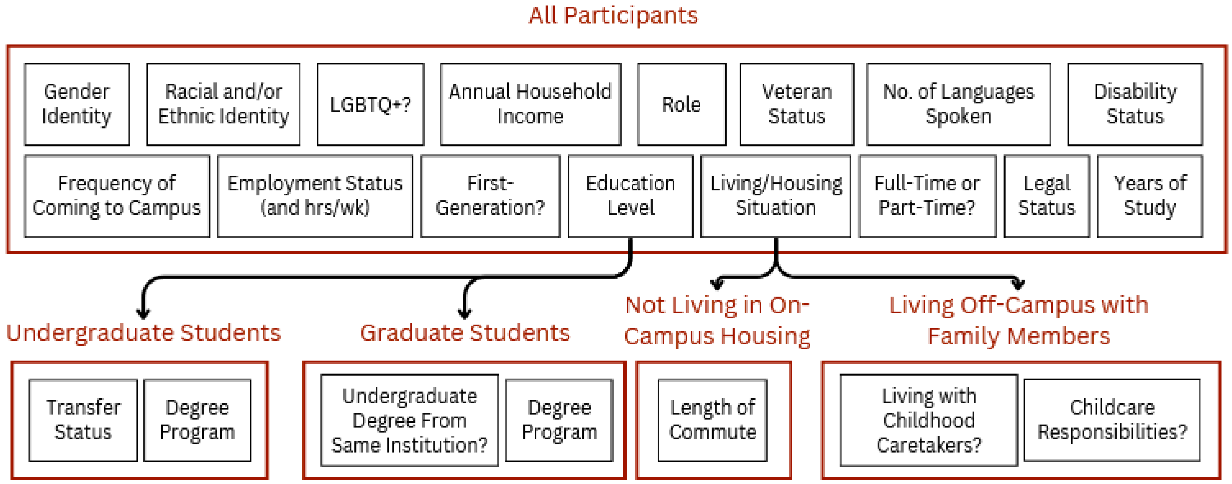


Figure 1: Questions asked to students in the Demographics Survey as well as survey logic flow.

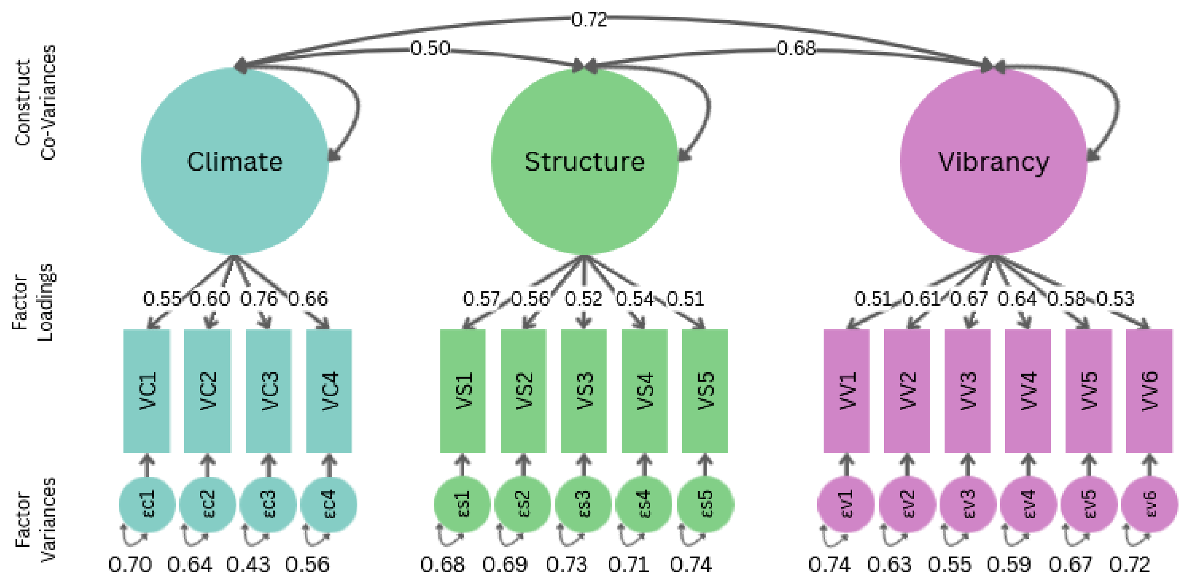
The Demographic Survey includes both typical demographic items found on surveys in the United States as well as those the Eco-STEM project has shown to have significant impacts on the education ecosystem at this institution, including race/ethnicity, gender, household income level, living/housing situation, and others [7], shown in Fig. 1. More details about the intention behind the Demographic Survey can be found in [6].

Survey Validation

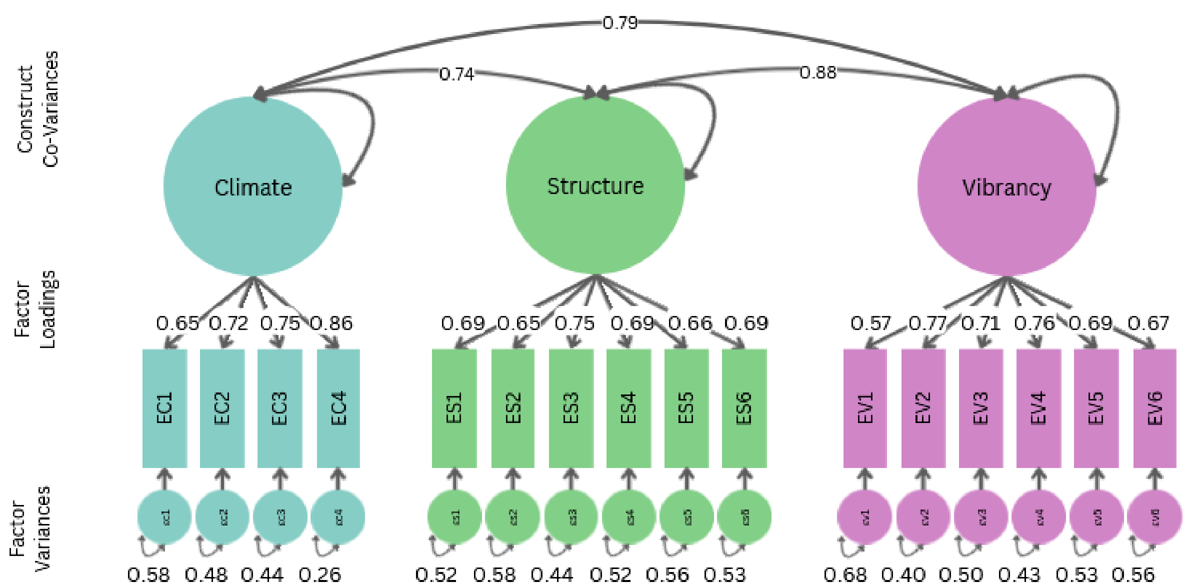
We validated the Student Opinion Survey with a Confirmatory Factor Analysis (CFA), a statistical method used to assess the validity of a proposed theoretical model. CFA produces factor *loadings* and *residual variances* that describe how strongly certain factors (in our case, survey items) contributed to the desired *construct*.

Our model proposes three constructs: climate, structure, and vibrancy. Each construct is comprised of several survey items, labeled by survey and construct (e.g., VC1 is "Values, Climate, Item 1" and ES2 is "Experiences, Structure, Item 2"). We tested to what degree our model is statistically valid given student response data from a pilot survey implementation. This allows us to assess how well our surveys are measuring our desired educational ecosystem measures. We separately tested models for the Values Survey results and the Experiences Survey results. Factor loadings, residual variances, and construct covariances describe the degree to which our model matches the response data.

We collected student data by distributing the opinion survey electronically to consenting students in the engineering college as per Institutional Review Board guidelines. We received 252 responses for the Values Survey and 367 responses for the Experiences Survey. After data cleaning, removing responses that were completed in under 60 seconds, as well as responses where less than 80% of survey items were answered, we ended up with 188 responses for the Values Survey ($n_V = 188$) and 302 for the Experiences Survey ($n_E = 302$). Using the R package Lavaan [8], we built both models and ran CFA using the Maximum Likelihood (ML) method, accounting for missing data with the Full Information Maximum Likelihood (FIML) method. Our analysis code can be found at https://github.com/ricknabb/eco-stem-sos. Our Values and Experiences models and resulting factor loadings, variances, and errors are displayed in Fig. 2.



(a) Values model with loadings and variances



(b) Experiences model with loadings and variances

Figure 2: Values and Experiences models with fits from running CFA. Loadings are listed on single-sided arrows, and variances on double-sided arrows.

High factor loading and low residual variance for a given questionnaire item indicates that it contributed significantly to the desired construct (i.e., climate, structure, or vibrancy). We observe that our factor loadings fall largely between 0.5-0.75, indicating moderate but not strong contribution to the constructs [9]. In contrast to our previous pilot, longer questionnaires reported in [6], these factor loadings are lower, and residual variances higher.

We additionally measured the model fits using several goodness of fit measures, listed in Table 3a for the Values model and in Table 3b for the Experiences model. We use common measures to gauge Structural Equation Model validity: Root Mean Square Error of Approximation (RMSEA), Tucker-Lewis Index (TLI), and Comparative Fit Index (CFI). These indices measure the degree to which our data matches the ideal model where each factor contributes perfectly to its respective construct.

Measure Name	Value	Measure Statistics
CFI	0.913	N/A
TLI	0.895	N/A
RMSEA	0.058	$p < 0.001$, 90% CI [0.041, 0.075]

(a) Values Survey model measures of fit.

Measure Name	Value	Measure Statistics
CFI	0.852	N/A
TLI	0.824	N/A
RMSEA	0.110	$p < 0.001$, 90% CI [0.100, 0.120]

(b) Experiences Survey model measures of fit.

Table 3: Model fit measures for the Values and Experiences Survey, modeled as in Fig. 2 and measured using a CFA model.

Our results indicate that our Values model is a strong fit and Experiences model is a weaker fit. Kline advises that RMSEA ≤ 0.05 indicates a close fit, a result between 0.05 and 0.08 is a reasonable fit, and a result ≥ 0.10 is a poor fit [10]. CFI and TLI indices, which range from 0 to 1, where 1.0 is an optimum fit. Based on CFI and TLI, both the Values and Experiences surveys show strong fits.

Kline additionally notes that because CFI, TLI, and RMSEA are based on the Chi-Squared statistic, it is advisable to have a sample size of at least *20q* where q is the number of factors in a model. For our Values model ($q_V = 15$), that would mean 300 data points, and for the Experiences model ($q_E = 16$), 320 data points. Our Values model, with 188 data points, is further under the ideal, whereas our Experiences model with 302 is closer. We can expect less accurate results from the Values survey measures of fit as a result.

We also note that our Experiences model measures of fit may be poor because of the nature of the sample. That survey is given to students for specific courses, so there may be more consistent responses within courses than when aggregating responses for all courses. This is a consideration for future use and statistical validation of the Experiences survey.

Survey Results

Demographic Survey

Our Demographics survey results show that our students have significant material constraints that reasonably affect their learning. Students' household income skews towards $50,000 and below (77 students of 142 who responded with a number, or 52.4%), despite the very high cost of living region of our commuter campus. Moreover, 101 of 196 students who responded to the item about employment are working, with most working 10-20 hours per week (42 of 101 or 41.6%) and some working 40+ hours per week (17 of 101 or 16.8%). Additionally, of the students who commute to campus (at our university, 95% of students commute to campus [11]), over half (111 of 185 or 60%) commute at least 30 minutes to campus, with some even over two hours each way. Finally, we found that the majority of respondents do not have a parent with college experience (98 of 179 who responded or 54.7%) and only a quarter have a parent who has completed a 4-year college degree (46 of 179 or 25.7%), reflecting our known significant first-generation population at this institution.

Values Survey

Our results from the Values Survey, listed in Appendix B, show that the three items with the highest importance are VS1 (mean=4.60, SD=0.60), VS2 (mean=4.60, SD=0.64), and VS3 (mean=4.62, SD=0.58), while the three lowest are VS5 (mean=3.95, SD=0.90), VV3 (mean=3.91, SD=1.09), and VC4 (mean=3.77, SD=1.06). Notably, students seem to value most that class expectations are clearly explained, and assignments are useful, while they value least aspects like making class properly challenging, interacting with other students, or valuing personal experience. In a separate disaggregation by engineering major (Electrical Engineering, Civil Engineering, Computer Science, Mechanical Engineering, and Aviation Administration), the highest and lowest ranked items were very similar across majors.

Experiences Survey

To illustrate the results of our Experiences survey, we choose to not share aggregate scores across all engineering courses, but rather the scores from a single course. Since the Experiences survey gauges student experience per course, which can vary significantly, presenting aggregate data is less useful. In practice, as part of the Student Opinion Survey process, we also present instructors only with results for their courses. We encourage them to compare their courses' results to the Values results of their department and the larger college.

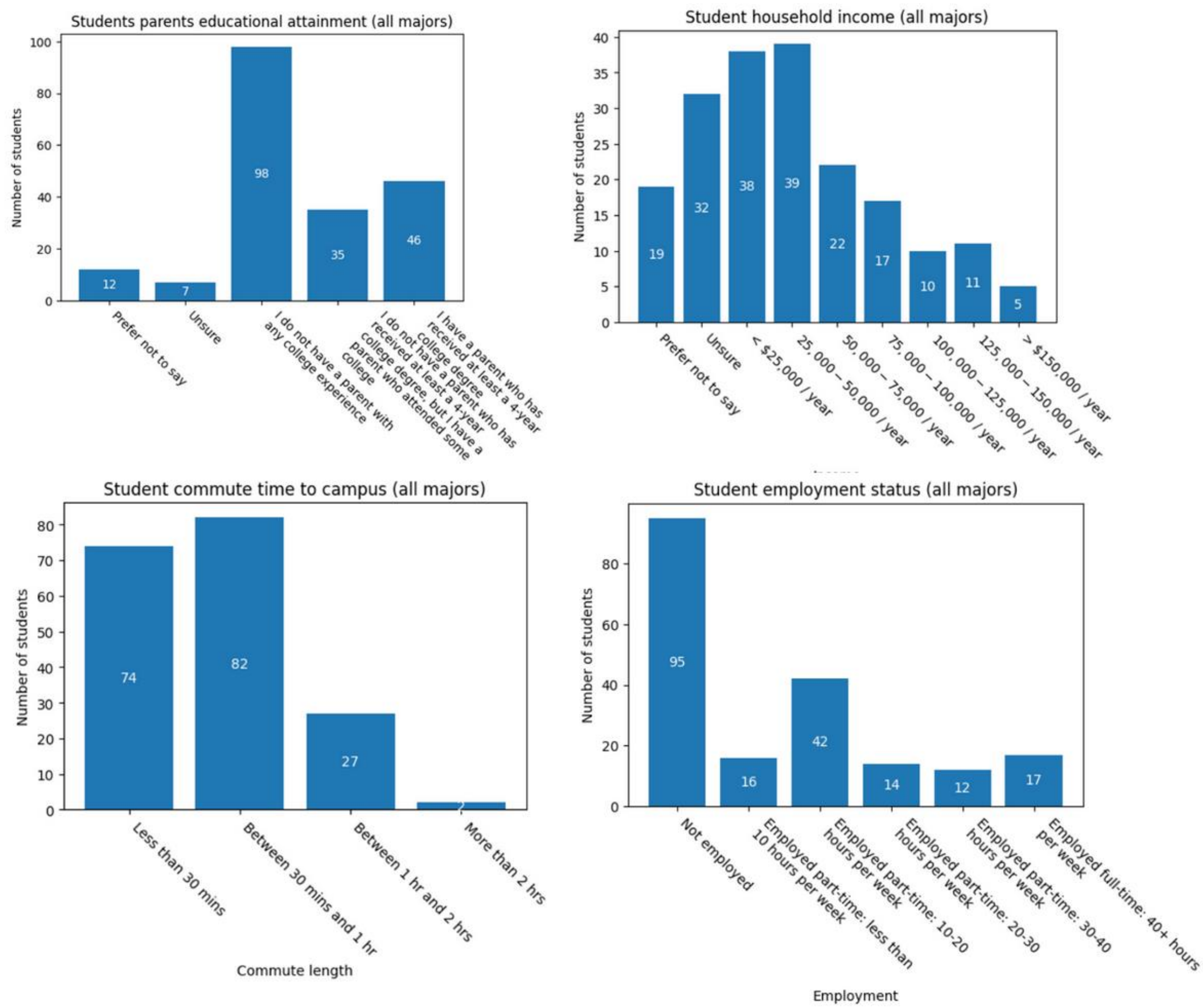


Figure 3: Charts showing results from the Demographics Survey for items querying students' (a) parents' educational attainment, (b) household income, (c) commute time to campus, and (d) employment status.

The results in Appendix C are from an engineering course taught by one of the authors, with responses from 32 students. The instructor found the results useful for reflection, expressing which pedagogical choices may have led to items with high scores, and concluding that those elements should be kept in the course. They also note items with high standard deviation, concluding that certain items from the survey may not be widely agreed on by students, suggesting that course improvements could be made by making those aspects more salient to students. With each reflection on the numerical results of the survey, the instructor additionally contextualizes these numbers with open-ended responses given by students, noting specific student comments, such as the impact of peer energy and classroom layout on climate, and perceived misalignment between quizzes and posted materials under structure.

Overall, the instructor shares that the Student Opinion Survey "functions as a deep communication channel that supports real instructional improvement because it makes student experience specific, interpretable, and linked to concrete design moves."

Discussion

Factory Mentalities in the Ecosystem

Our work in the Eco-STEM project is motivated by the goal of moving from what we call a "factory model" of education to an ecosystem model [4]. As it stands, one barrier to equitable and effective education is that engineering programs in higher education often force students into a one-size-fits-all conveyer belt. Whereas many institutions claim that students are not college-ready, we argue that colleges are not flexible enough to be student-ready. This Student Opinion Survey is one step we have taken towards learning how to be student-ready, meeting them "where they are," and measuring and improving the classroom ecosystem to enhance student learning.

Perhaps unsurprisingly, from our results, we find that student attitudes are more geared towards the factory mindset than the ecosystem mindset. These results show that students highly value classroom structure and clarity, much more than climate and vibrancy – notably with aspects like cooperative learning, bringing personal experience to the classroom, and having challenging classes scoring the lowest. We suspect from these results that students most strongly value their ability to make it through the factory, especially as from our Demographics results, we see that our students face significant material burdens outside of the university.

These observations provide key insights into the broader project of transforming higher education into an institution based in equity and able to serve students who have scarce resources. In the vein of Delpit's conclusions in *Other People's Children* [12], minoritized students may properly value, and benefit from, structured classrooms that help them most effectively navigate the factory, moving towards what they see as the means to live more stable lives – an engineering degree and job. While we know that minoritized students also bring rich cultural wealth [13] and desire a university that meets them "where they are," valuing their culture and skills, students may know that the outside world still does not. Moreover, if students had fewer material burdens, more security both materially and psychologically, perhaps they would more strongly value more progressive educational aspects of the classroom.

Yet simultaneously, these results may be explained by the conclusion that students simply do not know what is educationally most effective. Across decades of research into progressive and culturally responsive pedagogy, scholars have argued that aspects of our ecosystem constructs of climate and vibrancy – including students' whole selves and making content relevant to their lives -- improves educational outcomes. If students are not used to that, having only been exposed to traditional pedagogy, they may not even know a different method is possible and effective. Thus, they report what they are used to even if it is a disservice to their own learning in practice.

This result, disappointing to those of us who value ecosystem models of education [14-16], suggests that student communities who are left behind by traditional models of higher education are being socialized to highly value the same mechanisms that disenfranchise them. While trying to succeed in a system that is not designed to facilitate their success, they may not recognize any option of changing the system. This points to the need for critical approaches to education that value and demonstrate systemic change – even in engineering.

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References

[1] P. Seldin, “The use and abuse of student ratings of professors,” *The Chronicle Higher Educ.*, vol. 39, no. 46, 1993.

[2] P. Spooren, B. Brockx, and D. Mortelmans, “On the Validity of Student Evaluation of Teaching: The State of the Art,” *Rev. Educ. Res.*, vol. 83, no. 4, pp. 598–642, Dec. 2013, doi: 10.3102/0034654313496870.

[3] F. Zabaleta, “The use and misuse of student evaluations of teaching,” *Teaching Higher Educ.*, vol. 12, no. 1, pp. 55–76, Feb. 2007, doi: 10.1080/13562510601102131.

[4] Menezes, G., et al. "Eco-STEM: Transforming STEM Education using an Asset based Ecosystem Model." *2022 ASEE Annual Conference & Exposition*. 2022.

[5] Bowen, Corin L., Silvia Heubach, and Jianyu Jane Dong. "Eco-STEM Tools: Changing the Culture of Teaching and Learning in STEM." 2022 IEEE Frontiers in Education Conference (FIE). IEEE, 2022.

[6] N. Rabb, C. Bowen, K. Mejia, S. Heubach, G. Menezes, M. Ibrahim and Y. Feng, “The Voices of Our Students: Developing a Student Opinion Survey and Process to Support a Healthy STEM Educational Ecosystem,” *in 2025 ASEE Annual Conference & Exposition Proceedings. 2025.*

[7] C. Bowen, M. Ibrahim, and G. Menezes, “A Measurement of Systemic STEM Educational Wellness at a Minority-Serving Institution Using the Eco-STEM Educational Ecosystem Health Survey,” in *2023 ASEE Annual Conference & Exposition Proceedings*, Baltimore, Maryland: ASEE Conferences, Jun. 2023, p. 42424. doi: 10.18260/1-2--42424.

[8] Y. Rosseel, “Lavaan: An *R* Package for Structural Equation Modeling.” *J. Statist. Softw.,* vol. 48, no. 2, pp. 1-36, 2012.

[9] J. F. Hair, R. L. Tatham, R. E. Anderson, and W. Black, *Multivariate data analysis,* 5th Ed. London: Prentice-Hall, 1998.

[10] R. B. Kline, *Principles and practice of structural equation modeling.* Guilford Publications, 2023.

[11]

[12] L. D. Delpit. *Other People's Children: Cultural Conflict in the Classroom.* The New Press. 2006. ISBN: 9781595580740.

[13] T. J. Yosso, “*Whose culture has capital? A critical race theory discussion of community cultural wealth*,” *Race, Ethnicity & Educ.*, vol. 8, no. 1, pp. 69-91, 2005.

[14] S. M. Lord, M. W. Ohland, R. A. Layton, and M. M. Camacho, “Beyond pipeline and pathways: Ecosystem metrics,” *J. Eng. Educ.*, vol. 108, no. 1, pp. 32–56, 2019.

[15] A. Cheville, “Pipeline, Pathway, or Ecosystem – Do Our Metaphors Matter?” Distinguished Lecture at the ASEE Annual Conference, Tampa, 2019.

[16] W. C. Lee, “Pipelines, pathways, and ecosystems: An argument for participation paradigms,” *J. Eng. Educ.*, vol. 108, no. 1, 2019.

Appendix

A. Open-Response Questions for the Values and Experiences Surveys

Values		Experiences	
Climate	The most important thing(s) my professor can do to make me feel supported is...	Climate	Something(s) my professor did to make me feel supported was...
			Something(s) I didn't like about the classroom atmosphere was...
Structure	The most important feature(s) of a well-organized and well-structured class is...	Structure	Something(s) I most liked about the class organization and structure was...
			Something(s) I think could be improved about the class organization and structure was...
Vibrancy	The most important thing(s) my professor can do to make the course exciting, engaging, and interactive for me is...	Vibrancy	Something(s) that I particularly liked that made the class engaging was...
			Something(s) that could be improved to make the class more engaging is...

Table A: Open-response questions asked to students for both the Values and Experiences Survey.

B. Values Survey Results Across Engineering College

ID	**Question:** “In your classes, how important is it that your professor...”	**Mean**	**Std**
VC1	…helps you feel comfortable asking questions and making comments in class	4.41	0.72
VC2	...believes in your ability to learn and succeed	4.38	0.79
VC3	...makes you feel like part of the classroom community?	4.02	0.95
VC4	...values you for what you bring to class through your own personal experiences, inside and outside of class?	3.77	1.06
VS1	...clearly explains what you are expected to learn in the class?	4.60	0.60
VS2	...clearly explains the work to be done on all assignments/activities?	4.60	0.64
VS3	...provides assignments/activities that are useful in helping you learn the course material?	4.62	0.58
VS4	...provides feedback that is helpful for your learning?	4.56	0.63
VS5	...makes the class challenging in a way that is just right?	3.95	0.90
VV1	...is excited about the subject and shares this excitement with the class?	4.22	0.85

VV2	...uses in-class problem solving, and other interactive approaches?	4.33	0.76
VV3	...creates an environment where you interact with and learn from other students?	3.91	1.09
VV4	...encourages students to think critically and question assumptions?	4.23	0.78
VV5	...relates the course material to real-world applications?	4.39	0.74
VV6	...encourages students to take time to reflect on their own learning?	4.06	0.88

Table B: Results from the Values survey across all engineering departments.

C. Experiences Survey Results from Author's Class

ID	Question	Mean	Std
EC1	I felt like I was a part of the classroom community.	4.84	0.57
EC2	My professor valued what I brought to class through my own personal experiences, inside and outside of class.	4.88	0.48
EC3	I understand what I was expected to learn in the class.	4.84	0.57
EC4	Work to be done on all assignments/activities was clearly explained.	4.81	0.46
ES1	The professor's teaching style supported my learning	4.94	0.35
ES2	The professor used examples that were relevant to my own life and experiences.	4.84	0.44
ES3	The professor provides feedback on my work that helped my learning.	4.78	0.6
ES4	The class was challenging in a way that was just right.	4.84	0.36
ES5	I can tell my professor was excited about teaching the class.	4.5	0.75
ES6	In class, we used interactive approaches beyond just traditional lecture to learn the material.	4.69	0.53
EV1	The instructor created an environment where my classmates and I learned from each other	4.84	0.44
EV2	I feel encouraged to think critically and question assumptions.	4.66	0.54

EV3	My professor connected what we do in class to current social and/or cultural events and issues.	4.28	1.04
EV4	My professor encouraged me to take time to reflect on what and how I was learning.	4.78	0.6
EV5	I felt like I was a part of the classroom community.	4.78	0.54
EV6	My professor valued what I brought to class through my own personal experiences, inside and outside of class.	4.72	0.57

Table C: Experiences Survey results from one course taught by one of the paper authors