



Probing Self-Efficacy

Research Question

- (1) What contributes to “Established Cohort” members developing self-efficacy?
- (2) How can that information be used in preparing for the “Transfer Cohort”?

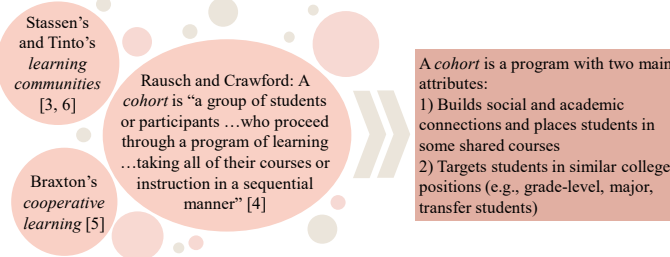
We examined an “Established Cohort” – a cohort of primarily students of color, at a Predominantly White Institution. This cohort will expand to include a “Transfer Cohort” meant to improve the transition from a two-year college (TYC) to a four-year college (FYC).

Self-efficacy

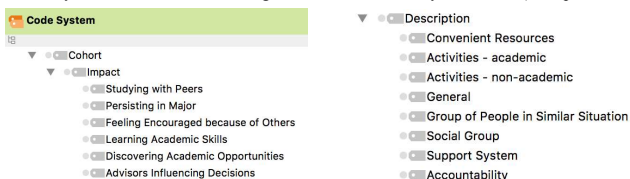
“Confidence in one’s ability to perform a particular task” [1]
Can I do it? How well can I do it?

Mastery	Social Persuasion	Vicarious Learning	Physiological
“Is there a memorable experience that caused you to choose your major?”	“When you’re making academic decisions, to whom do you talk?”	“How do you think being a part of this cohort has changed your college experience?”	(Emotional) This was not a focus of our research.

Operational Definition of Cohort



We analyzed interviews with a coding scheme for self-efficacy and cohort (examples shown).



Interview Participants

Amani- transfer student, first year at FYC	Victoria- freshman in cohort	Shaina- freshman in cohort
<ul style="list-style-type: none"> Human bio major (pre-med) Started at TYC to save money Finds cohort-like resources, largely from clubs: “Religious Association” and “Medical Student Association” 	<ul style="list-style-type: none"> Chemistry major Worried about amount to complete for major Considered switching majors Did not switch, attributed to cohort experiences 	<ul style="list-style-type: none"> Human bio major (pre-med) Chose versatile major Sister's advice- she was a human bio major who switched to dentistry Joined cohort with friend after much discussion

References and Acknowledgements

- [1] A. Bandura, *Self-efficacy: The exercise of control* (W. H. Freeman, 79-89 (2012). 1997).
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- [4] D. W. Rausch and E. Crawford, *Metropolitan Universities*, 23(1), 1-11 (2000).
- [5] J. M. Braxton, J. F. Milem, and A. S. Sullivan, *The Journal of Higher Education*, 71(5), 569 (2000).
- [6] V. Tinto, *Higher Education Monograph Series*, 1, 1-8 (2003).
- [7] P. Heron and L. McNeil, *Joint Task Force on Undergraduate Physics Programs Report*, (2016).

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Results

Amani is proactive at finding many cohort-like resources, like:

- Finding friends and social events
- Forming study groups
- Discovering academic and professional opportunities
- Seeking volunteer and internship opportunities

However, she makes few statements to suggest they impacted her self-efficacy.

Contrasting her interview dialogue with Shaina's and Victoria's, we see that **the whole cohort experience is more than a sum of its parts.**

Cohort-like experiences rarely result in Amani making self-efficacy statements

“Like I said, *I failed that one class at [TYC] which really brought my confidence really down.* But coming here during orientation, I remember they were talking about, ‘...you might not pass every single class.... as long as you focus on the right path and where you want to go, it'll work itself out and everything.’ That really spoke to me because I was like, ‘Yeah. I just failed this class. And I’m really worried about it. But hopefully, it does all work itself out.’”

Amani is encouraged by a motivational speaker at orientation, but does not make a positive self-efficacy statement about the speech.

“Well, I wrote out everything that I had to take and when I wanted to take it. And I think that since I did take a lot of classes in the summer, that helped me get ahead of everything. So now I have room for my next fall and spring semester where I can take any fun class or anything. I don't have to (inaudible) that aren't required. Yeah. So in that, *I'm like not stressing about.* Mostly just that I pass with good grades, that's the biggest stressor.”

Seeing a feasible four-year course schedule is an experience that likely positively contributes to self-efficacy whether or not a student is in a cohort.

Students outside of the cohort face particular academic difficulties

Amani describes other academic difficulties in addition to scheduling study groups.

Cohort members also occasionally describe the opportunities available outside of the cohort.

“Yeah, because [at TYC] I really got to know my professors really well, too, and like my classmates as well. Whereas like here [at FYC], *one of my classes was 400 people or something like that, and I was so baffled.*”

(Comparing to studying with cohort academic coach Malcolm) [The tutoring center's] just really busy; since it's open to everyone, it's always very busy, very crowded, very packed. *They're just trying to get you in there, get you out of there, get it done.* I need to learn, so this just was not the best thing for me.

Interviewer: “It was a little easier to get to know your peers [at TYC]?” Amani: “Yeah. Here [at FYC], it's a little bit intimidating with so many people.”



Amani

“With the short answers, they were usually something that he mentioned maybe once or twice in the entire weeks before the test. So that was kind of hard. That was probably the hardest.”



Victoria

“In some of the classes, they would form study groups...but I didn't go on a regular basis... I have work and I have volunteering, too. So it's been tricky to find the time to go to study groups.”



Amani

“[Both associations] ...helped me find really good volunteer options, too. ...And they helped me with – they gave us tips and ideas for studying for the MCAT and all that, too.”

Shaina and Victoria get a more personalized experience as part of the cohort

Interviewer: “If someone had asked, ‘Can you work at Google?’” Shaina: “*Absolutely not.*” Interviewer: “If someone asked you now?” Shaina: “*If I work at it, yes, if that's the path I want to take I think for sure I could take it.*”



Shaina

In contrast to Amani's experience, a cohort motivational speaker completely changed Shaina's career self-efficacy.

“Okay, so we had an advising meeting. And after that [Marie (cohort advisor)] lays out your four-year plan.... And after she put everything on this little schedule *I could visualize like, oh, this is possible.* And they're, super, super nice, really for you for your success with... *So they're like, 'No, you can definitely do it. There's all these resources you can use if you're having trouble in your classes.' For that, for me, I was like, 'Okay, it's been done, someone else is doing it. I can do this, it's possible here.'*”



Victoria

Victoria makes clear vicarious learning and social persuasion statements, not just because of the four-year plan, but also the supportive community of faculty and similarly situated learners.

Shaina and Victoria get a better academic experience as part of the cohort

“That's the reason – *I know I have someone that I can go do my homework with every night.* No offense to LMRU, but they have that [tutoring] center, and that's not my favorite place to go either. *Like honestly, having [cohort], having Malcolm (cohort academic coach) is like a major part of my success in my math classes.* ...I cannot tell you if I would still be in the [major] at this point; like I might have been a communications major a long time ago.”



Victoria

“There's tables in there and all of the tables will be in the same subject so you'll walk in there and be like, ‘oh you're studying right now? Let me get my stuff and study with them.’ That's how I interact with the space is coming out and then finding other people in the same classes and sitting down and studying.”



Shaina

“*I did better on the first exam than on the second exam* because I did more outside of the classroom for the first exam than for the second. ...There's ...a student like us ...and she goes and she teaches in the cohort room to a whole bunch of students who are in it right now.”

For two cohort members, the cohort fosters experiences that support making stronger self-efficacy statements than a transfer student who experienced only aspects.

Discussion

Limitations

The interviewer may not have probed self-efficacy in the same ways. However...

- The main questions were always asked in similar ways.
- There is a lack of clear positive self-efficacy statements across Amani's entire interview.

Future work

Amani's analysis suggests that she would likely benefit from the full cohort experience.

However, we need to refine what the cohort experience for transfer students entails.

- The cohort includes a seminar in the first and second years, which may need to be adapted.
- Cohort members mostly live together, but transfer students may be more likely to commute.