

## INTRODUCTION

In educational settings, deficit thinking suggests that student failure is a matter of individual initiative, placing the onus of responsibility on the student and the failing to consider structural factors that can impede performance (Valencia, 1997). Anti-deficit perspectives, in contrast, consider external factors that may influence student performance.

There is scarce work documenting how educators endorse these forms of deficit thinking in both STEM and university settings. Determining whether or not there are correlations between deficit thinking and gender or ethnicity may provide key information of how shifting to an anti-deficit perspective can greatly benefit the educator-student relationship in tutoring sessions.

The current study seeks to understand how educators (e.g., undergraduate tutors) think about struggling students and to explore differences in frequencies of attributions for struggle based on tutor characteristics (e.g., gender, ethnicity).

## METHOD

**Participants:** 135 undergraduate tutors

- 57 Cisgender males, 78 Cisgender females
- 46 Black & Latinx, 39 Asian, 50 White

**Procedure:** As part of a class assignment, tutors read a vignette of a struggling STEM student and answered open-ended items about their attributions for why the student is struggling. Participation in the study took 10 minutes.

**Measures:**

- One open-ended item: *Why do you think this student is struggling?*
- Tutor demographics (e.g., ethnic identity, gender)

**Coding Procedure:**

- Directed content analyses (Hsieh & Shannon, 2005)

## RESULTS

### Deficit Attributions

Category	Frequency (%)	X <sup>2</sup>	df	p
<b>Gender</b>				
Cisgender males	43.6	.07	(1, 135)	.78
Cisgender females	56.4			
<b>Ethnicity</b>				
Asian	32.7	2.51	(2, 135)	.28
Latinx and Black	38.2			
White	29.1			

### Examples of Deficit Attributions

*“The student is struggling because of lack of effort. I believe if he/she stepped up and dedicated more hours to studying for class the student would pass and even excel.”*

*“... they are not utilizing outside of the class resources effectively...could be that the student is not spending enough time on the class and maybe needs to do more work at home, study with friends, or attend tutor sessions.”*

### Anti-Deficit Attributions

Category	Frequency (%)	X <sup>2</sup>	df	p
<b>Gender</b>				
Cisgender males	39.5	.16	(1, 135)	.68
Cisgender females	60.5			
<b>Ethnicity</b>				
Asian	28.9	.181	(2, 135)	.91
Latinx and Black	31.6			
White	39.5			

### Examples of Anti-Deficit Attributions

*“There is a high chance this student is struggling due to the transition to college. They may be unable to focus in the new environment...”*

*“I think the student could be struggling because of how the material is presented in class- heavy lecture based- in such a big classroom...it's easy for students not to ask questions...”*

## DISCUSSION

- Although there were no significant gender or ethnic differences in the number of deficit and anti-deficit attributions, tutors are reporting deficit attributions about student struggle.
- Tutors, therefore, place the onus on struggling students to pass their courses.
- Tutors' deficit attributions could give insight to how they view themselves as able or unable to help the struggling student.
- Tutors' knowledge of social structures could be limited

## FUTURE RESEARCH

Future research should explore...

- the ways in which deficit attributions affect educator and learner relationships.
- the ways in which students respond to educators having deficit attributions about academic struggles.
- the ways in which anti-deficit attributions could positively affect learners.

## REFERENCES

- Valencia, R.R. (1997). *The evolution of deficit thinking: Educational thought and practice*. United Kingdom: Routledge.
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research, 15*(9), 1277-1288.

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For more information, contact: [jcarden8@ucsc.edu](mailto:jcarden8@ucsc.edu)