

### Background

Research analyzing more than thirty studies concludes that effective teacher professional development aimed at student achievement is content focused, supports collaborative learning, provides expert support, and offers space for feedback (Darling-Hammond, et al., 2017). Somewhat less well known are how teachers' and professors' perspectives on these experiences relate to effective professional development. This study analyzed data from five audio interviews conducted with participating teachers, professors, and staff for use in a video project for Charlotte Teachers Institute (CTI), a teacher professional development program. A grounded theory methodology and a constant comparison method (Strauss, 1967) were used to analyze interview data by developing codes, categories, and themes based on the direct testimonial with the goal of identifying an emergent theory of professional development. Interrater reliability through code-sharing among the research team helped to identify five common themes that emerged from the interviews.

### Research Questions

1. How does a teacher development program with a collaborative learning environment impact a teacher's efficacy in creating a productive learning environment for students?
2. How has the participation in a professional development program, specifically professional relationships, influenced teacher efficacy?
3. How confident are teachers in addressing race within their classroom after CTI seminars?

### Methods

Over the course of seven months, five interviews for a CTI video project were analyzed through the use of grounded theory (Crotty, 1998). Two university professors, two K-12 public school teachers, and a staff member of CTI were interviewed. Each participant was given a pseudonym for confidentiality purposes. The questions they were asked addressed features of the program's seminars, their experiences, and their thoughts about CTI. The audio of the interviews was transcribed into written form, which was then coded using the application NVivo12. The resulting codes were then exported to a Word document, where they were organized into a table for further analysis. They were examined and used to identify categories, which were then compared to each other to create common themes. Each interview transcript resulted in its own set of themes and through comparison of each set with the others, new overarching themes were created, resulting in five final themes.

### Data Analysis

Using the constant comparison method (Cohen, 2006), the codes were read and compared to each other until a common association was identified and categories were created. Through axial coding, these categories and their corresponding codes were further analyzed to generate themes within each interview transcription. The emerging themes of each interview were then compared to each other and similarities were found to create six overarching themes. The sixth theme "Participant Demographics" was used as subsidiary data to inform researchers of the participants' backgrounds. These themes formed the basis of an emergent theory of professional development.



### Results

Through data analysis a total of 529 codes were created. Then, a total of 92 categories were created from these codes and from these codes 27 themes emerged. Then, through constant comparison and data analysis 5 themes emerged from the 5 interviews.

### Emergent Themes

- T1: CTI seminars support teachers to delve into relevant topics  
 T2: Collaboration in CTI seminars facilitate growth, both personally and professionally  
 T3: Benefits of CTI seminars are evident through the purposeful implementation of formal curriculum and improved teacher efficacy beliefs  
 T4: CTI seminars are intentional about addressing difficult topics such as racial equity so teachers can better serve their students  
 T5: CTI seminars empower teachers to advance their knowledge, confidence and ownership of curriculum

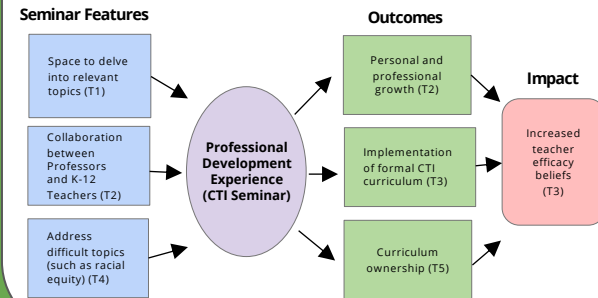
### Interview Testimonials

Table 1. Direct testimonials from interview respondents by five emergent themes

T1:	"I think CTI is an opportunity, um, to do that, but also to have conversations about, you know, what might be missing, um, and what interests the, um, fellows have that they want to bring to their students" - Anna, College Professor
T2:	"Um, I feel like having a deeper understanding of curriculum and also having those connections with other teachers make me feel more confident no matter the subject or grade level that I'm teaching." - Linda, 2nd Grade Teacher
T3:	"So every time I do a seminar I'm very intentional about bringing back, if I can't bring the whole curriculum back, I'll bring back components of that seminar, um, for students to engage with." - Mia, High School English Teacher
T4:	"The importance of programs and initiatives like CTI is that it allows these topics to go down to filter through to the classroom, directly impacting the students, particularly Black women and girls" - Anais, College Professor
T5:	"I think that when we have these conversations as educators and we are able to bring those conversations into the classroom, I think it helps support our students in learning, um, about what's going on around them because sometimes they're not as aware as you think that they are and, um, just by us being able to be exposed to these things we can bring those back to the classrooms and help students." - Mia, High School English Teacher
T5:	"I think that by incorporating these big and difficult ideas into our CTI seminars, we're able to dive deep into that why and understand how these larger changes in education are important for our students and can affect them, and we also find ways to immediately make an impact in our classroom." - Linda, 2nd Grade Teacher

### Theory of Teacher Professional Development

Figure 1. Relationships between seminar features and outcomes on teacher efficacy beliefs.



### Conclusion

This research suggests that teacher professional seminars allow teachers to grow professionally, develop a sense of internal confidence in their classroom practice, and likewise equip them with the practical tools and knowledge needed to foster their teaching efficacy. As shown in the graphic, the research suggests that effective teacher professional development includes space to delve into relevant topics, collaboration between professors and K-12 teachers, and addresses issues such as racial equity. Research also suggests that effective professional development experiences will lead to personal and professional growth for teachers, implementation of formal curriculum within classrooms, and allow teachers to take ownership over their curriculum, all leading to an overall increase in teacher self-efficacy beliefs (Darling-Hammond, et al., 2017).

### Limitations

Limitations to this study included the nature of the relationship between interviewees and researchers, and the limited scope of racial equity interview questions by the interviewees.

### Recommendations

Future research should examine the relationship between teacher professional development and racial equity on the development of efficacy beliefs.

### References

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