Analyzing Curriculum Unit Implementation:
A Product Evaluation of Charlotte Teachers Institute

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Background

Previous research has indicated teachers as key components to successful curriculum implementation (Tamir, 2004). Charlotte Teachers Institute (CTI) is a partnership among UNC-Charlotte, Davidson College and Charlotte-Mecklenburg Schools (CMS) that offers high quality, intensive professional development to teachers. The program's mission is to strengthen teaching and learning in the community by improving teachers' engagement and effectiveness in the classroom. This study is a product evaluation of the implementation of curriculum units at CTI. The CIPP, also known as context, input, process and product evaluation model was used because it provided a framework to assess CTI's goal related to curriculum implementation in order to make informed judgement of the program's value (Zhang, Zeller, Griffith, Metclaf, Williams, Shea, & Misulis, 2011).

Tamir, P. (January 01, 2004). Curriculum implementation revisited. *Journal of Curriculum Studies, 36*, 281-294.
Zhang, G., Zeller, N., Griffith, R., Metcalf, D., Williams, J., Shea, C., & Misulis, K. (December 01, 2011). Using the Context, Input, Process, and Product Evaluation Model (CIPP) as a Comprehensive Framework to Guide the Planning, Implementation, and Assessment of Service-Learning Programs. *Journal of Higher Education Outreach and Engagement, 15*, 4, 57-84.

Methods

The overall research strategy combines grounded theory (Charmaz, 2014) and multiple case study research methods (Yin, 2014). A multiple case study design was used to address the research question, because the purpose was to understand Fellow's experiences with curriculum unit implementation. A grounded theory methodology was used to analyze and synthesize the data collected from three representative Fellows who implemented all or part of their CTI Curriculum Unit.

Procedure
1. Analyzed 2017 CU Usage Survey of Fellows to create criterion for selecting Fellows
2. Set up interviews with selected Fellows
3. Audio recorded and transcribed each interview
4. Printed transcribed interviews and secondary data that included questions from the CTI Fellows' Questionnaires, CU Usage Survey, and written CUs from the teachers' seminars
5. Read through documents once before coding
6. Began initial coding by underlining repetitive words and making marginal remarks
7. Re-coded primary and secondary data while being guided by the research question
8. All words and phrases highlighted and underlined were put in tables
9. The codes were categorized
10. Themes emerged

Charmaz, K. (2014). *Constructing grounded theory.* London: Sage.
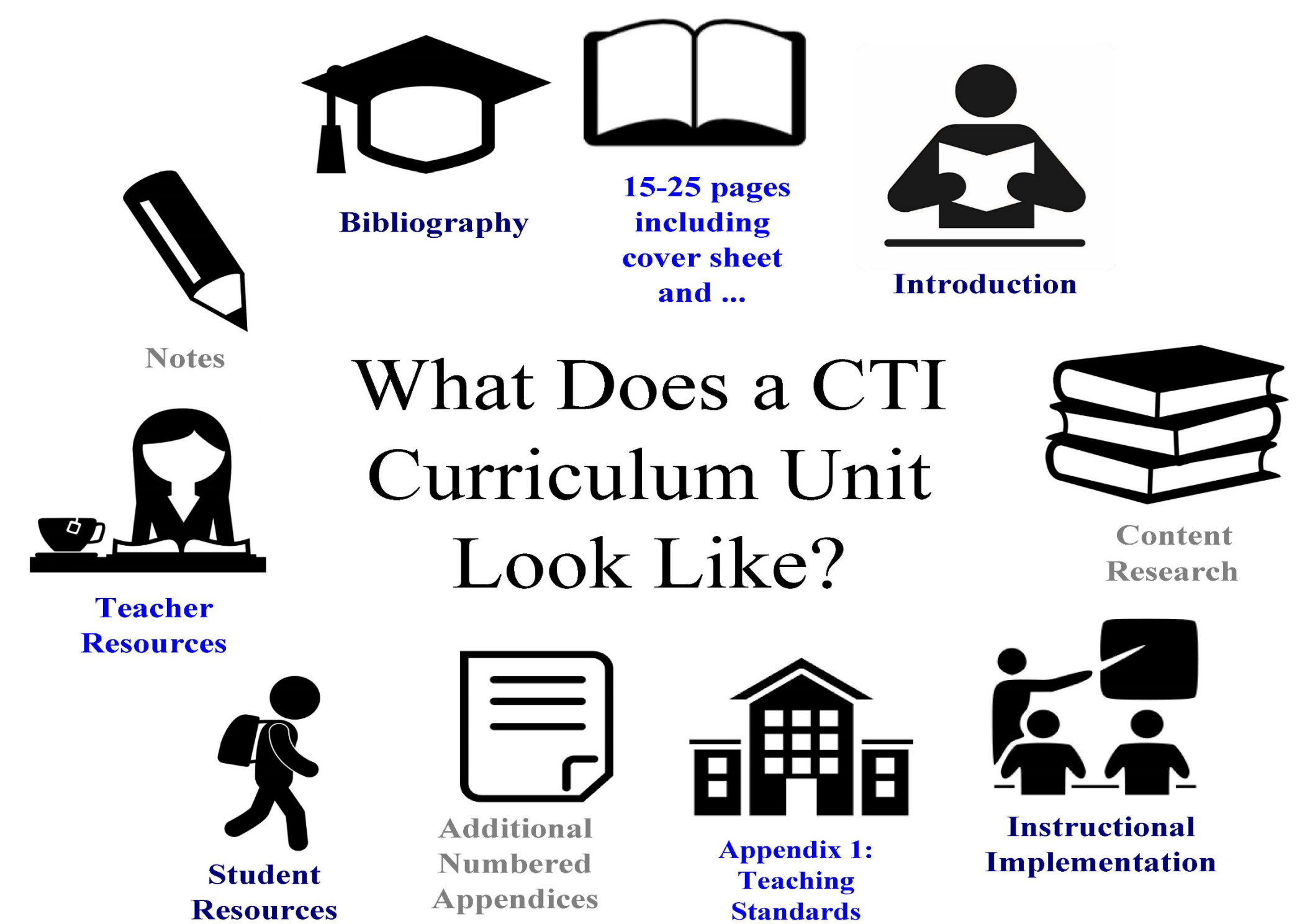Yin, R. K. (2014). *Case study research: Design and methods.*
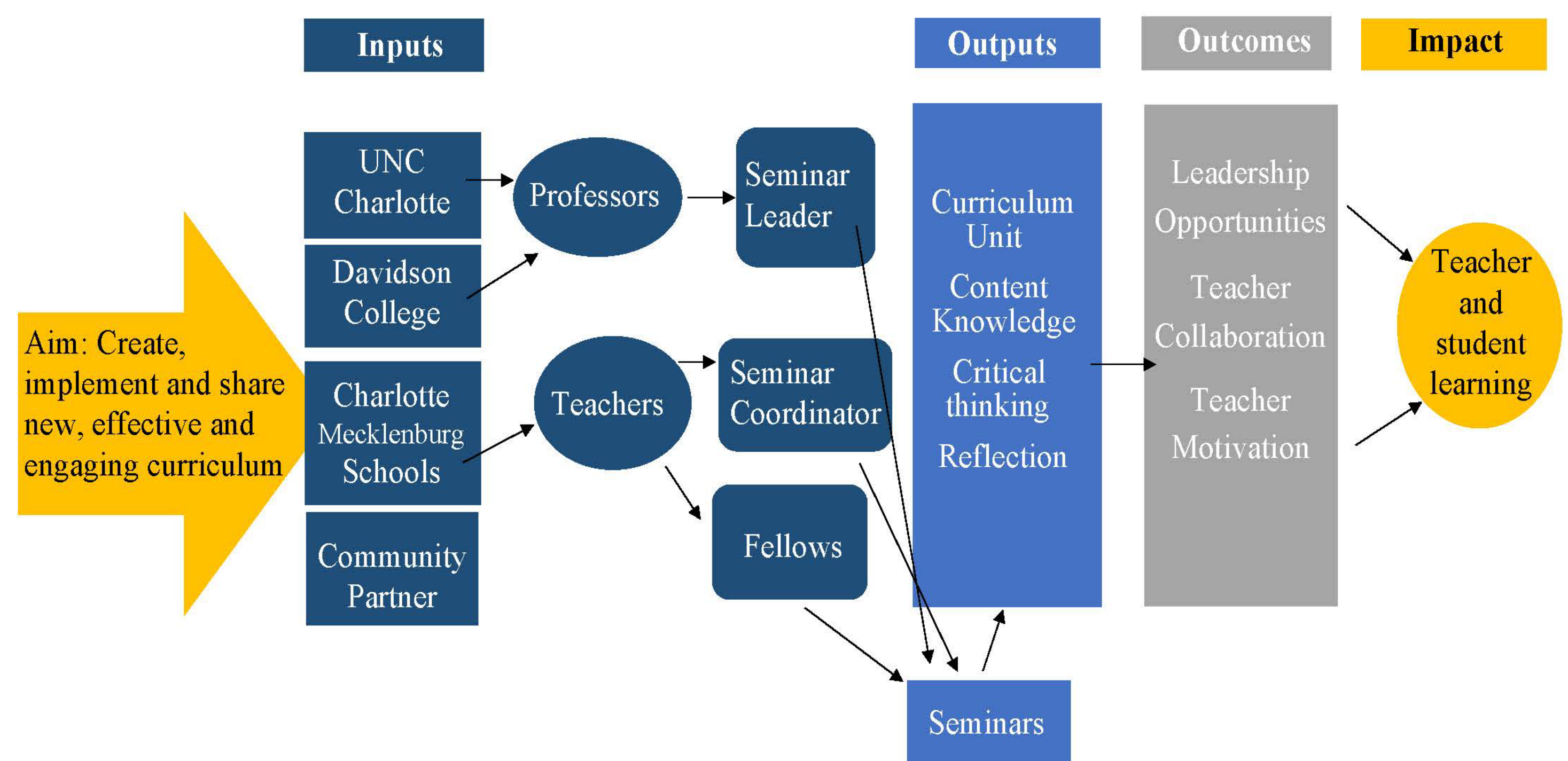
Research Question

How does the implementation of CTI inspired curriculum units impact Fellows and student learning?

Penelope	Timothy	Francesca
Waddell Language Academy	Community House Middle	West Charlotte High
5th grade	8th Grade	12th grade
K-5 Generalist	Mathematics	Language Arts
26 years of teaching experience	4 years of teaching experience	12 years of teaching experience
22 years in CMS	4 years in CMS	2 Years in CMS

Teacher learning during seminar --- Verbatim excerpts from interview transcripts

Penelope	I was interested in the subject personally because I have African roots so [I] learned tons of things about Africa that I didn't know.
	It was a lot of content, a lot of theory but if we talked about strategies for example with [seminar leader] at the end she asked everybody to present their curriculum unit and you could pick, you could find strategies from other teachers that you can implement in your classroom.
Timothy	[Seminar] kind of reinforced that concept to have more trial and error.
Francesca	We would read at the time and we would look at these poems and kind of dissect them and so I've actually used that component.

Student learning during curriculum implementation --- Verbatim excerpts from interview transcripts

Penelope	I think it definitely impacted their reading skills. So we read this folktale … It's written at a very high level so it definitely increased their vocabulary.
	The lesson was richer, it's more interesting, it's more subtle, [and] it brings kids to reflect, you know, on historical figures in general.
Timothy	It's definitely made them better problem solvers. I think it kind of gave them more of a confidence to go on a limb and try more stuff.
	A lot of it is informal because, you know, kind of see, how excited the kids got with the stuff and, you know, having kids get really excited about figuring out a quadratic equation.
Francesca	Strengthening vocabulary for students and understanding root words.

What Does a CTI Curriculum Unit Look Like?

Data Analysis

Question: "What were the greatest benefits derived from teaching your unit?"

Example of coding and categorizing Penelope's 2017 CU Usage Survey response.

Results

Using a grounded theory methodology and a multiple case study design to analyze primary and secondary data from three CTI Fellows, four themes emerged: (1) professional learning activities experienced in seminar coming back into the classroom; (2) the flexibility of creating school-based curricula; (3) the integration of various subjects in the curriculum to make learning more relevant; and (4) the promotion of collaboration among teachers. The research findings fit with CTI's goal related to curriculum implementation. Fellows gained new content and skills from seminar which fostered their enthusiasm for learning. Fellows expressed that by producing innovative curricula they witnessed student learning as well. For example, Penelope's students participated in more animated discussions, Timothy's students were able to improve their math solving abilities, and Francesca's students strengthened their vocabulary. In addition, Fellows were able to gain more knowledge about creating innovative curriculum through collaboration with other teachers and university and college professors.

Conclusion

Studies on successful curriculum implementation find teachers as key components (Tamir, 2004). The research conducted for CTI revealed that the program has accomplished its goal of expanding teachers' content knowledge, an essential characteristic to a successful teacher PD program (Guskey, 2003). Seminar leaders expose Fellows to new teaching strategies and concepts. With their newly gained knowledge and skills, Fellows are able to create original curricula. Another characteristic of effective PD programs is sustained duration. From one interview, a Fellow suggested a focus not only on new, but veteran Fellows to have ongoing opportunities to grow as educators. CTI can continue to improve the quality of teaching by providing veteran Fellows with new teaching strategies and concepts to aid them in producing innovative curricula.

Guskey, T. R. (June 01, 2003). What Makes Professional Development Effective?. *Phi Delta Kappan, 84*, 10, 748-50.
Tamir, P. (January 01, 2004). Curriculum implementation revisited. *Journal of Curriculum Studies, 36*, 281-294.

Logic model in addressing research question