

2016 CTI Summer Research Experience for Teachers

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INTRODUCTION: The emphasis on STEM fields is a major priority within PreK-12 public education. There is extensive research in the literature regarding science education and teacher professional development. However, there exists a gap between this research and documentation of scientist-teacher partnerships and their cooperation in creating science education curriculum for K-12 students. This project was a process evaluation of the Charlotte Teachers Institute (CTI) Summer Research Experience for Teachers pilot program. The purpose of this process evaluation, as defined by Stufflebeam's CIPP Model (2003), was to document the implementation of this program. This project also sought to provide insight about the dynamic of this partnership and consider how the potential for positive impact of this collaboration can transcend into the classroom.

METHODS: The participants fell into three groups: scientist (N=1), graduate students (N=2) and classroom teachers (N=2). The methods used to conduct the process evaluation consisted of preliminary and post interviews, naturalistic observation of lab work and weekly meetings, and weekly reflection logs. The evaluator spent 10 hours observing lab work and 3 hours observing weekly meetings. With the consent of lab participants, the evaluator also took photographs to provide further observation details.

RESULTS AND CONCLUSIONS: Over the 3-week period through analyzing detailed observation field notes, interviews, and reflections logs, four major themes were discovered: Mentorship, Collaboration, Scientific Engagement, and Curriculum Development. Insight gained from this process evaluation as well as the literature was also used in creating recommendations for replication of programs based in a scientist-teacher collaborative model. Brewer, Brown, and Caton (2000) suggest that the most important feature of scientist-teacher partnerships is establishing an overall shared vision between program partners. Similar to this research, teachers observed the importance of establishing a common vision for collaboration. The evaluator found emphasizing collaboration not only between scientists and teachers, but also within scientist and teacher groups to be an essential component of scientist-teacher partnerships.



Mentorship:

The observed dynamic between graduate students and teachers in regards to the approach graduate students had in instructing and guiding teachers in the lab.