Table 4. project goal, data source, timing, and analysis method

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| **Project Goal** | **Data Source** | **Timeframe** | **Analysis Methods** |
| Increase teachers' science content knowledge of Earth Systems and climate science | • Teacher content knowledge assessment (pre/post/delayed post) | May 2013, July 2013, May 2014 | ANOVA or ANCOVA and correlational analysis with RTOP |
| • Essential Principles Quizzes• Discussion Forum Posts and Comments (post) | Summer institute and during school year | Content Analysis |
| Enhance elementary teachers’ pedagogical knowledge of inquiry, differentiation, and use of informational text | • Teacher instructional practice questionnaires (pre/post) | May 2013, May 2014 | ANOVA and correlational analysis with RTOP |
| • Teaching Logs and Lesson Plans• Classroom observations (RTOP and DIIM for differentiation);• Random sample of participant interviews or focus group | Ongoing during school year | Content Analysis |
| Improve students’ understanding of the foundational concepts of climate science and improve students’ interest in science and science careers | • Student questionnaire and content knowledge assessment (pre/post, Grades 3-6 only)   | Sept 2013, May 2014 |  ANOVA, disaggregated by gender/ethnicity/grade level |