Supplemental Materials

SM-1 Science Partner Interview Protocol

Week 23, Interview questions

- 1. Why did you decide to become a partner?
- 2. What were your expectations?
- 3. What typically happens during science time?
- 4. How would you describe the relationship you have with your students?
- 5. What skills and sensibilities does your role as a science partner require?
- 6. What evidence do you have that your students are learning science?
- 7. How has that knowledge affected your understanding of them as learners?
- 8. How have the students' attitudes toward science and learning changed as a result of the partnership?
- 9. How did ESEP influence their actions/behavior related to learning science?
- 10. How have you most profoundly changed after being involved in ESEP (as a result of the experience)?
- 11. How has your experience in the ESEP program affected your understanding of science?

SM-2. Summary of science partners' beliefs about pupils' ability to learn science as expressed during each time period

Participant	Initial Belief	Week 4	Week 11	Week 20	Week 23
Anna	Expect students are unintelligent, misbehaved & disinterested	Most below average in "innate" skills; are uncreative; Few have ability to learn science; Most low interest in science & other subjects	Some intelligent; Most uncreative but skill can be developed; Most enjoy science but unmotivated to learn	Some able but unmotivated; Students have various abilities & learning styles	Most intelligent & able; Students have various abilities; Most interested & motivated to learn science, but not other subjects; Most learned science
Badra		Most able but slow (poor memory) in learning science; Most have low interest & low motivation	Most able but slow (poor memory) in learning science; Most are interested & motivated	Students able to learn science & any subjects; Students have "vivid" memories; Most are interested & motivated	Students able to learn science; Students are typical learners for their age; Students have "vivid" memories; Most interested & motivated; Students learned science
Chikara		Some able but slow (poor memory) in learning science; Some smarter & more able; Most low interest; most mentally disconnected & excitable	Some able but slow (poor memory); Some respond to experience w/science; Science practice stimulated their interest in learning	"All" able to learn science; Some smarter & more able; Most interested in learning; Most motivated by experience w/science practice	"All" able to learn science; Some smarter & more able; Most interested in learning; "All" respond positively to experience w/science practice
Dawei	Most probably not intelligent; most below grade level in ability	Some able but slow learners; Some only learn methods; Most interested in learning; Most need 1-on-1 w/teacher	Most able; Students have different learning & communication styles; Most interested in learning; Most need 1-on-1 w/teacher	"All" able; "All" intelligent; "All" need logic training; Most interested in learning; Some students prefer 1-on-1 w/teacher	"All" able & more so than most students at their grade level; "All" intelligent; Most interested in learning; "All" learned science yet are under prepared for middle school studies