ITEST National STEM Learning Resource Center

Research and Strategies for Engaging African American and Latino Families in Informal STEM Education – June 6, 2012 - Q&A

Presenters: Jacob Martinez, ETR Associates & Patrik Lundh, SRI International

Q: Are the protocols used <by ETR Associates> for parents to give constructive feedback to their children available for wider use?
A: We do not have anything currently published. You may want to look at research on parent child connective-ness.

Q: <For both presenters> How would you apply your strategies in the community college setting?
A: Addressed in presentation

Q: What type of professional development did ETR Associates provide for staff hired from the community?
A: We use an embedded teacher training model for any instructors entering our program. The embedded teacher training places a teacher in the classroom to participate as a program participant. The primary role of the embedded teacher is to participate in all program activities, with a particular focus on the teacher having a hands-on experience of the technology used by the students and completing their own technology project.

Q: <For both presenters> Please provide a reference list/links for research and other materials mentioned
A: From ETR Associates:
- *Civil, M., & Andrade, R. (2003). Collaborative practice with parents: The role of researcher as mediator. In A. Peter-Koop, V. Santos-Wagner, C. Breen & A. Begg (Eds.), Collaboration in teacher education: Examples from the context of mathematics education (pp. 153-168). Boston, MA: Kluwer.*
- *Civil, M., Bratton, J., & Quintos, B. (2005). Parents and mathematics education in a Latino community. Multicultural Education, 13(2), 60-64.*
- *Gutiérrez, K.D. and Arzubiaga, A.E. (2012). An ecological and activity theoretical approach to studying diasporic and nondominant communities. In W.F. Tate (Ed.), Research on schools, neighborhoods, and communities. New York: Rowman & Littlefield, Inc.*

A: From SRI International:
- *Barron, B. (2006). Interest and self-sustained learning as catalysts of development: A learning ecology perspective. Human Development, 49, 193–224.*
- *Barron, B., Martin, C. K., Takeuchi, L., & Fithian, R. (2009). Parents as learning partners in the development of technological fluency. International Journal of Learning and Media, 1(2), 55–77.*
- *Cooper, C. R., Denner, J., & Lopez, E. M. (1999). Cultural brokers: Helping Latino children on pathways toward success. The Future of Children, 9, 51–57.*
- *Dweck, C. S. (2006). Mindset: The new psychology of success. New York, NY: Random House.*

- *Eccles, J. S., Wong, C. A., & Peck, S. C. (2006). Ethnicity as a social context for the development of African-American adolescents. Journal of School Psychology, 44, 407-426.*
- *Hazari, Z., Sonnert, G., Sadler, P. M., & Shanahan, M. C. (2009). Connecting high school physics experiences, outcome expectations, physics identity, and physics career choice: A gender study. Journal of Research in Science Teaching, 47(8), 978–1003.*

Q: The community that ETR is speaking about is interesting and very similar to so many communities where I am located. What recommendations do you have for educators and entrepreneurs to build partnerships and alliances and mirror some of the models being presented here today in similar communities?
A: Addressed in presentation

Q: Are the report and instruments used for the study being conducted by SRI International and partners available?
A: Yes, absolutely! You can email me at patrik.lundh@sri.com and let me know what you are interested in.

Q: Does the female or the male parent have a greater impact? I would also be interested to know if they see any conflict between parents. "My mom supports me but my dad does not." or vice versa - how does that play out?
A: Addressed in presentation

Q: How do incentives for parents <offered by ETR Associates> counteract the barriers parents face in their participation? Do you find that when you provide daycare and meals you have more parental participation across all your projects? Did any of your programs not offer these options?
A: Daycare and meals are vital to a community such as ours. We often have parents that work all day and providing a meal for them and their family allows them to worry about one less thing prior to attending the meeting. We have done programs without daycare and find that the parents are easily distracted and the room tends to get noisy quickly. It is important to provide families time to eat with their children prior to taking them to daycare so that the kids are more secure about the environment. Also, make sure to have trained daycare people and not just volunteers.

Q: <For both presenters>Do you think that the teacher/facilitator has to be from the same community in order to engage minority girls? He mentioned that careers in their own value system, etc matters, I'm just wondering if who that message is being delivered by matters as well.
A : <from ETR Associates> I think it is best whenever possible but often it just can't be done. When hiring the facilitator make sure that they have a good understanding of the goals of your program and the expectations you have from them. Often regular school day teachers want to manage a classroom in the same manner they manage their classroom and that just doesn't work if the kids are at the program by choice. If recruiting a teacher from the local school the best thing to do is to ask the kids how they feel about certain teachers. They will be honest!

A: <from SRI International> For innovaTE[3], many of the facilitators working with girls, as well as staff at Girls Inc. in general, are Latino, African American, and/or live in the community. To some degree that is probably helpful, but I don't think it's necessary. Who you are matters, of course, but ultimately it's the relationships you build that matter more. Building those relationships is probably a little bit harder if you start out with less common ground with youth, whether it be with regard to ethnic, cultural, or

socioeconomic backgrounds. I think it helps a lot to have some insight and understanding of the lives and experiences of your youth population. In the Girls Inc. context, it also helps to be a woman of course. But I remember one facilitator who was a young white male who built incredible relationships with girls. Learning about and respecting what youth actually go through in their particular context goes a long way.

Q: How does the culture of the parent change the dynamics of the program overall? Did you follow different approaches to engaging African American and Latino parents? How do you disaggregate SES with race and ethnicity issues?

A: *<from ETR Associates> My community that I work with is predominately Latino and therefore the culture practices are geared towards that community. Here is a great resource: http://www.cscproject.org/index.php?q=node/161*

A: *<from SRI International> In InnovaTE³ we oriented the activities toward what was relevant in the surrounding community, and tried to be responsive to the experiences, values, and interests of the girls in shaping the program. Girls Inc. staff knows the girls and their families and their community very well, and their input was an important source of ideas for the curriculum designers. We did not follow different approaches per se, even though the work was informed by literature on important issues in these populations.*

Q: Does either program incorporate a mentoring component?

A: *<from ETR Associates> No*

A: *<from SRI International> InnovaTE³ has an internship component where the girls work closely with a STEM professional, who is referred to as a "mentor." But the girls only work with their internship mentor for a few weeks over the summer, which would not qualify as mentor in the sense of someone who really advises and works with girls over a longer period of time. Girls receive that kind of mentoring support from their overall participation in Girls Inc.*

Q: Could you speak to sustainability of the projects beyond grants?

A: *<from ETR Associates> My colleague Steve Bean presented a ITEST LRC webinar: http://itestlrc.edc.org/resources/scale*
We will also be writing a paper on the topic.

A: *<from SRI International> InnovaTE³ is continuing at Girls Inc of Alameda County beyond the grant period. The team is exploring opportunities to expand InnovaTE³ to other Girls Inc. and after school sites.*

Q: What do universities provide? How are college students involved?

A: *<from ETR Associates> The universities provide opportunities for field trips and guests speakers. We have also built a relationship with an organization on campus that places undergraduates into communities of need. Contact your local university sociology department because similar initiatives often exist.*

A: *<from SRI International>The summer component of InnovaTE³ is part of an overall Girl Inc summer program that is hosted by a local college. The girls participate in classes on the college campus, and classes and events are organized so as to give girls a sense of what college life might be like.*