Mentoring in the Philadelphia GO-GIRL Program
Impact on Penn's Graduate School of Education Student Mentors

by Diana Slaughter-Defoe and Traci English-Clarke[1]

Abstract

The role of mentor development in implementing an out-of-school math and science Saturday program for middle-school girls is examined, using content analyses performed on journal entries that four college and graduate school-level mentors completed during the second year of the pilot program. Findings suggest that mentors matured and changed from the mentoring experience and that mentor development was a key aspect of the process of implementing the program.

Introduction

The University of Pennsylvania, a private university, has a tradition of service learning in Philadelphia (Harkavy and Donovan 2000; Puckett, Harkavy, and Benson 2007). The GO-GIRL Program, developed originally by researchers at the University of Michigan and Wayne State University, is a program designed to enhance middle-school girls' interest in and facility with math and science. The GO-GIRL Program involves groups of girls in social science research, specifically by facilitating their collaboration with college and graduate student mentors to design surveys, collect survey responses, analyze the data, and present their results. Solicited for a potential dissemination site, the co-authors perceived similarities between their university's tradition of service learning and the goals of the GO-GIRL Program. Therefore, the University of Pennsylvania Graduate School of Education (Penn GSE), through a faculty member, Dr. Diana Slaughter-Defoe, embraced the

GO-GIRL Program (Reid and Roberts 2006) and adapted the service learning university course model developed first at Michigan (Reid and Stewart 2002a, 2002b). For purposes of ongoing mentor training at this dissemination site, Slaughter-Defoe's course was entitled "Childhood Intervention," which is offered to graduate students in education and human development.

The course was designed to engage graduate students in discussions and interactions with gender-based research focusing on social, cognitive, and academic issues for girls of diverse class, ethnic, and racial backgrounds. The Penn course incorporated several features: a) a structured experience for a group of students, rather than require individual assignments; b) connections to children in the community; c) a useful and appreciated program of community service; and d) an opportunity for students to engage in both conceptual and practical learning. In the service component of the course, students (mentors) guided girls through the curriculum of mathematical reasoning, elementary statistics, and social science survey research. The eight mentors (four per semester) attended two-hour seminars each week during spring semesters 2006 and 2007. Mentors and girls (mentees) met on ten Saturdays from 9:00 a.m. to 2:00 p.m. Each year, the four mentors came to training meetings on Wednesdays from 4:00 p.m. to 5:30 p.m. and worked with their girls on Saturdays. Mentors and co-authors cooperated to frame policies regarding expectations and standards for girls' learning and behaviors.

This article presents an analysis of mentor journals in 2007 (year two), the only year in which these data were collected from mentors. By then, the authors appreciated the special influence of mentees on the mentors themselves. To determine the educational and developmental needs of the mentors, mentor data were content-analyzed with a focus on interactions between mentor-mentee relationships, timing or phase (beginning, middle, and end) within the program, curriculum content, and each graduate student's disciplinary background. Of particular interest were the perceived demands of the urban girls whom mentors served, including poverty and ethnic-racial issues influencing the urban girls' schooling achievement and social development.

Program Background

In both years, the co-authors were key personnel. Dr. Slaughter-Defoe took primary administrative responsibility for the design of the program, its location, its identification of partners, and the compensation of its participants. She arranged for the field trips and the career-day speakers. Ms. English-Clarke took responsibility for implementing both math and robotics components of the program as well

as for ensuring that mentors were properly trained in math-robotics instruction to mentor girls. Both co-authors assumed responsibility for obtaining the necessary curricular materials and for adapting the Michigan course to meet the needs of Penn GSE students. Using youth-specific data analysis computer programs in both years greatly simplified the processes of math instruction regarding survey-data analysis for both mentors and girls.

82

In the first year, the co-authors held the program at a public school, Select Middle School. In the second year, the co-authors held the program at Penn GSE. Therefore, mentee enrollment declined sharply, from fifteen to four girls, but the percentage of girls already likely to be college bound and comfortable working on a college campus increased. Thus, mentors served no more than four girls in year two: Enid, an olive-skinned French American girl; Anna, a light-skinned Black-White biracial girl who was friends with Enid at school; Barbara, a darker-skinned African American girl; and Nkosi, a dark-skinned African girl who had recently immigrated to the United States from the Ivory Coast. Each week the girls' parents escorted their daughters to Penn's campus for a half-day program that included lunch, picking them up shortly after 2:00 p.m.

Description of the Mentors: Year 2 (2007)

The four female mentors for year two were candidates in two master's degree-granting programs in applied psychological studies, one focused on psychological counseling (three mentors: Michele, Sharon, and Deborah) and the other focused on studies in human development (one mentor: Donghui). Sharon and Deborah were light-skinned African Americans, Michele was Caucasian, and Donghui was an international student from Taiwan.

Mentors had voluntarily enrolled in the course on childhood intervention, and the 4.5 hours per week mentoring experience, along with two-hour weekly class meetings, were course requirements. In 2007, the authors made a special effort to attract student mentors with consistent beliefs in constructivist pedagogy. They relied heavily on course participation to train the students as effective mentors, create positive group dynamics, and "guide" or facilitate using constructivist-style pedagogy. Dr. Slaughter-Defoe taught the Wednesday graduate course taken by the mentors; during a few sessions, Ms. English-Clarke prepared the group for the three special robotics lessons. Course requirements also included submission, over ten weeks, of "reflective journals" (two typed double-spaced pages) following each weekly session with mentees. This article relies heavily on the journal accounts for observations about mentor development.

Voices of the Mentors

Analysis of mentor voices over time offered insights on how the mentoring process could have influenced the life histories of the mentors (Silverman 2001; Stake 1997). Thematic analysis of mentor voices over three phases of the year-two program is presented. Phase I includes program sessions 1–3. During phase I, mentors and mentees were just starting to become acquainted. Mentors were initially asked to write journal entries about the mentoring experience. Phase II includes sessions 4–6, during which paired mentors and girls became comfortable with each other and the girls were starting to interact more with their peers. In phase II, mentors were asked to try to account for the bonding that had occurred between themselves and their "primary" mentees. Phase III includes sessions 7–10. During phase III, mentors were asked to write about the apparent skin-color stratification in the girls' choices of "primary" mentors. Journal entries were analyzed to identify persistent themes in each phase. After summarizing themes that most mentors noted, we will present data on two mentors, Michele and Deborah, whose written perspectives changed significantly.

Themes across Mentors

Phase I: All mentors expressed both fear and excitement at the onset of mentoring. The fear was largely associated with whether they could make friends with and be accepted by the girls. For Donghui, a Taiwanese national, this fear stemmed from her limited oral fluency with English and her feeling that the linguistic and cultural obstacles might overwhelm her. Both Michele and Sharon reported that their excitement eclipsed their fears when they met the girls and their mothers at the orientation and observed how enthusiastic and excited they were about joining the GO-GIRL Program. Deborah emphasized that she was glad to mentor because it afforded her a chance to turn "theory into practice" and use knowledge to positively affect others' lives, especially the lives of adolescent African American girls.

Phase II: By phase II of the intervention, mentors' journals provided evidence of deeper insights into their mentees and into themselves as caregivers and teachers. This process was enhanced by two field trips that permitted observations of the girls and some family members in other contexts, and it was challenged by separations due to spring break at the schools and at the university.

Both Deborah and Donghui reported important "teachable moments" that they maximized for themselves and for the mentees, including talking with mentees about dealing with particular personalities and strategizing to maximize mentees' confidence in their

abilities. Mentors also displayed nuanced views of their respective roles. For example, Donghui was concerned that Anna's tendency to complete her work quickly and then multitask not embarrass her as primary mentor. In contrast, Michele judged her merit as a mentor not by how her mentee, Enid, behaved toward others but by how Enid behaved toward her.

Phase III: In the concluding phase of the GO-GIRL Program, mentors expressed particular pride in the girls' final analyses of the data (> 100 respondents) collected based upon their own survey design; strong beliefs in the value of the program for the mentees who participated; concern and care for the girls' futures; and sadness over the anticipated separation. Mentors resolved to try to continue the relationships, at least via e-mail. Preparations for "graduation" dominated journal entries, which also touched on sources of inspiration for the mentors. Both Michele and Sharon reported being inspired by a site visit from Dr. Pamela Reid of Roosevelt University, Chicago, in spring 2007.[1]

One special journal topic was introduced by the co-authors because it was manifest throughout the program but not discussed in journals during either phase I or II: the impact of skin color and race upon relationships in the program, both between mentees and between mentors and mentees. After being probed, some mentors considered the difficult role of color and race in forming relationships with mentees.

Earlier in the GO-GIRL Program all the mentors' journals discussed the lone monoracial African American mentee, Barbara. For example, Michele had observed that Barbara seemed left out of the friendships enjoyed by Enid and Anna; Sharon, noting the girls' behavior patterns, coupled "Enid and Anna" in contrast to "Nkosi and Barbara." However, in the final weeks of the program neither Donghui nor Michele discussed Barbara's failure to complete the program, while both African American mentors, Deborah and Sharon (Barbara's primary mentor), discussed Barbara's departure.

Only Deborah's observations, however, resonated with the larger group issue of how color and race may have affected the mentoring process. Deborah wrote about the way race and skin color affected the interactions among the girls as well as their selection of mentors.

> I believe that Enid and Anna, being the lighter-skinned girls of the group, chose their mentors according to skin tone. . . . In my own experience with Enid and Nkosi, Enid was very reluctant to work with Nkosi and did not want to work cooperatively with her on the assignment. . . . When I stopped her to discuss her answers with Nkosi, she [Enid] answered the

question her way and did not even look at Nkosi for her perspective. . . . This behavior has been repeated in many small instances and I do not want to assume that skin tone bias is the only cause of her unwillingness to interact with Nkosi or Barbara, but I do believe that skin tone is a mediating factor. . . . During this session, I was very disappointed that Barbara was absent and I think it is safe to assume that she will not be returning to the program. . . . I believe she could have benefited from being exposed to this program because she definitely struggled with the math introduction. . . . She was very excited about analyzing the data and answering the questions, but she refused to speak to the other girls. I think the relationship between Anna and Enid was threatening and Nkosi's ethnicity [West African] was too foreign to relate to in the program. Honestly, I was surprised that Barbara remained for the length of time that she did. . . .

Deborah believed that Barbara was too different from the other girls to fit in. Not only was Barbara one to three years older and physically larger than the other girls, she was also darker than the other American girls and culturally much different from the one girl (Nkosi) who looked anything like her. In a later journal entry, Deborah critiqued her own actions and those of the other mentors in considering Barbara's exit from the program: "I believe that we failed Barbara in a way because . . . we did nothing to intervene. We should have done more collaborative activities in order to ensure that all the girls were interacting with each other, which would have made her feel like she was in a more inclusive environment." Deborah also argued that those ideas would be particularly difficult for Michele to accept. As Enid's primary mentor, Michele identified so strongly with Enid that Deborah in effect thought Michele would be acknowledging and commenting on her own unconsciously biased attitudes.

Significantly, during phase III mentors also provided compelling evidence for their own personal development through the relationships built during the mentoring process. Donghui pointed to deconstructing her personal stereotypes about Americans and to coping effectively with those new understandings. Deborah was explicit about her newfound joy at being a teacher and watching people learn.

Individual Mentor Development

Deborah's Career Change
Initially, Deborah was fearful of the unknown, but once she began interacting with the girls, she enjoyed the opportunity to mentor

African American girls and interest them in social science research. She also noted her concern about Barbara, who seemed uninterested in the program despite her mother's attempts to get her excited about it. Deborah described her attempts to reassure the girl and make her feel welcome. As she grew to understand her primary mentee better, Deborah described her frustration with Nkosi's unwillingness to write down the answers to the challenge questions. She used her recollections of her own childhood shyness as a way to understand Nkosi's behavior and to move beyond her own frustration.

86

> When we broke into smaller groups I became worried because she refused to answer any of the challenge questions for the InspireData [data analysis] program . . . [and] she did not want to write any of the responses on the page. [I] became very frustrated. . . . Although my frustration was hidden, I wanted to get control of myself before it started to affect our time together. I put the situation in perspective by empathizing with her and I thought about how shy I was as a child. I also had to consider the fact that she is in a different country and culture than she is accustomed to. . . . I began to ask her questions about herself. . . .

In phase II, Deborah seemed focused on the girls and her mentee's academic issues. She wrote about her attempt to get Nkosi to read a passage out loud. She seemed to have decided that Nkosi's refusal to read was based primarily on discomfort and less so on difficulties with reading English.

> I asked each of them [Enid and Nkosi] to read a passage, but Nkosi, who has expressed her discomfort with reading to me before, refused to read. Enid was more than willing to read the passage and answer the questions, but I wanted to challenge Nkosi to read the shortest passage and when I did she was very resistant to the idea. She told me that she was not a good reader and that she could not do it, but I assured her that she would be great and she agreed to try. I told her that if she read the passage, Enid would answer the question. While she was reading, she made only two mistakes and was very careful. Whenever she didn't know an answer I would say the word for her and our process worked very well. Nkosi was very proud of herself and I was glad that I pushed her to read.

Deborah concluded that Nkosi was "accustomed to refusing to read and is able to fall under the radar," but her experiment led her

to believe that she should continue to push Nkosi to participate fully in all program activities to help her realize how capable she really is.

In phase III, Deborah also mentioned her own growth during the program, stating that she gained a better understanding of the youth for whom she wants to advocate as an education researcher. Additionally, she noted that she appreciated the opportunity to watch children learning in an organized setting, an experience that was new and exciting for her.

> Although I was eager to participate in the program, I did not anticipate being changed by the experience. When I graduated from my education program, I was very jaded by the education system and decided to become a professor or researcher instead of a schoolteacher because of the bureaucracy and restrictions. My experience in this program has shifted my perspective a bit because I had never been in a classroom watching children learn and having done that is phenomenal. I remain very focused on becoming a researcher in the education field in order to be an advocate for children, but now I have a clearer picture of who and what I am advocating for in my research. . . .

Although Deborah initially seemed focused on her opportunity to contribute to the girls' experience, her focus almost immediately turned to the girls and her perception of their internal issues, including shyness, lack of interest, and difficulty adjusting to the culture. She then made an extended effort to address her identified primary mentee's main issue, lack of comfort with reading and writing in English. In response to prompts about the role of race in mentor selection, Deborah had focused on the ways in which skin color affected both selection of mentors by the lighter-skinned girls and interactions between the lighter-skinned and darker-skinned girls. Deborah seemed to shift from a focus on the girls' issues, to ways to address those issues within the program, to a critique of the larger social issues that affected how the girls selected their mentors and interacted with one another.

In 2008, a year after the second year of the GO-GIRL Program, Deborah wrote Dr. Slaughter-Defoe to request a personal recommendation supporting her application for a teaching position at a nearby college. She informed the authors that the GO-GIRL Program had inspired her to work with children after her graduation and that she had worked at a preschool in the previous year. Her experience as a GO-GIRL Program mentor helped her to realize her own potential and desire for helping children learn, despite her concerns about

the educational system. Subsequently, Deborah returned to Penn to pursue another master's degree, this time in teacher education.

Deborah's mentoring experiences thus led to a career change; conversely, Michele gained personal insights, maturing into her originally chosen career path as a youth counselor. Michele's perspective changed considerably over the course of the program. Her journal entries initially focused on her observations, including low enrollment, one girl's discomfort, and her primary mentee's personality characteristics. Later, she explored relationships, generating possible explanations for the interactions and the developing relationships she observed. Even later, Michele continued to seek explanations, but she also began to critique her own experiences and thoughts.

Michele's Personal Growth

In phase I, Michele often spoke of Enid's intelligence and of her fear that Enid would succumb to peer pressure or stereotype threats later in adolescence.

> Enid continues to surprise me with her intelligence and quick wit. Working with her is a dream because she understands the concepts so well, which allows us to discuss the activities more in depth since I don't have to spend a lot of time explaining the activities to her. . . . However, she is still very young (only ten!) and from my experience, peer pressure does not become salient until later in adolescence. While she seems to be on a math/science trajectory, there is still ample time for her to fall into stereotype threat or succumb to peer pressure. . . . [S]till, I truly do believe that she will continue to hold a self-assured and strong spirit throughout life and I cannot imagine anyone forcing her to not be herself. . . .

In phase II, Michele realized a benefit to the low enrollment that had troubled her in phase I: mentors and girls could have one-on-one time and develop mentor-mentee relationships that might have been weaker had there been a lower ratio of mentors to girls. She also reflected on her experiment with Enid and Nkosi: by informing them that they both spoke French, she hoped that Nkosi would feel more comfortable talking with Enid. Michele reported that giving them the information worked as she had hoped—upon hearing the news, Nkosi's face became animated. Michele also noted similarities between ten-year-old Enid and herself as a twenty-five-year-old:

> We both have outgoing personalities and are comfortable with ourselves and being the center of attention. . . . However, myself at age ten is similar to Enid in the sense that she sometimes

appears to be older than her years. My mother has always told me that I was a little adult as a child, due to constantly being surrounded by adults. . . . Perhaps myself and Enid appeared older than our years because of our academic-oriented nature. . . . [N]ot being afraid to show an interest in academics might be one reason some children are perceived as acting older. . . .

Initially limiting her comments on Enid to the similarities between their personalities, Michele later wrote that Enid was so excited to see her at GSE one Saturday that she stayed by her side during the morning activities and even the field trip, despite her mother's presence nearby. Michele noted that it was "gratifying to know that [Enid] respects me and wants to spend time" with her, but gave four different "possible reasons" for Enid's proximity-seeking behaviors. We believe that she recognized Enid's desire for a mentor and seemed glad to be able to fill that role for her, but she also felt a need to explain Enid's behavior rather than simply compare it to her own youthful behaviors.

In phase III, Michele elaborated on the similarities between Enid and herself as a ten-year-old. She realized that being responsible for her younger sibling perhaps caused her to act more like an adult than a child. She further implied that as a result, she was not afforded the opportunity to enjoy being a child throughout her childhood. She expressed hope that Enid would not fall into the same pattern, since Enid is also responsible for her younger siblings and seems adultlike for her age.

Michele also attempted to account for the sense of community that she sensed among the girls and mentors. She wrote:

> I've also been thinking that perhaps the friendship between Deborah, Sharon, and myself going into the class and program might have affected the close-knit quality of our group. The three of us had classes together last fall and were already friends in January, and we welcomed Donghui (at least I hope she felt that way!) at the beginning of the semester. The girls were able to see that we truly liked each other, and I believe that it fostered a sense of community that they felt safe in. . . .

Finally, in phase III, Michele mentioned Dr. Reid's visit and noted that she, like the previous mentors Dr. Reid recalled, had changed some of her negative views about adolescent girls since the start of the program.

> [Dr. Reid] mentioned that some of the former mentors from the GO-GIRL Program felt that GO-GIRL was useful for their

personal growth because it helped debunk some of the views they had about adolescents. . . . [They had] believed that adolescents were apathetic and not eager to learn. . . . I feel that I also had a similar thought going into the program. . . . I was also pleasantly surprised to see adolescent girls eager to learn and not at all apathetic. . . . After hearing her speak about these girls I realized that I had no idea what the girls wanted to do after high school. I was amazed, and admittedly slightly ashamed, that I had never thought to ask the girls something so important to the program. . . .

Most of Michele's changed perspective seemed to involve journal entries about her mentee's characteristics. Initially, she focused on Enid's intelligence and strong-willed personality, the similarities between Enid and herself as a child, and her assessment of the obstacles Enid might face later in adolescence. As she came to know her mentee better, she began to try to explain Enid's proximity-seeking behaviors toward her, using knowledge that she gained about her mentee during the previous weeks. By the end of the program, Michele had developed detailed explanations for the similarities between Enid and herself and analyzed her own experience as one that prevented her from enjoying her childhood. She also began to critique her own focus within the program, noting her shame at not asking the girls about their plans for future schooling and careers. Throughout her journal, she incorporated her program experiences in analyzing Enid and herself. It seemed as if in interacting with and learning about Enid, Michele was also learning about herself.

Conclusion

Much of the focus in research on mentoring and volunteer tutoring programs is on outcomes for the mentees, and rightly so, for that is often the goal of such programs (e.g., Ritter et al. 2009). However, our work over two academic semesters, 2006 and 2007, led us to hypothesize that besides the mentee outcomes, mentor development also occurs during the course of a mentoring program. Development can involve shifts in mentor beliefs, perspectives, and outlook on future career options. In year two, mentors were required to journal weekly about the mentoring experience. Although the analysis involved only four mentors, four mentees, and a program that took place over ten sessions, we believe that the findings lend credence to the mentor-development hypothesis.

A study of two of our mentors seemed to indicate their focus had shifted from the day-to-day concerns of the girls and the program to the wider context in which the girls live and interact. Those

shifts may be attributed to their increased interaction with the girls, which enhanced their understanding of the mentees' personalities, circumstances, and tendencies. In addition, the course requirements may have also contributed to shifts in mentor perspectives. Mentors were required to journal weekly about the mentoring experience, and during Wednesday class sessions they discussed issues related to adolescent development and potential barriers to the girls' progress in math and science. Constant reflection on the mentoring experiences may have enhanced analysis of interactions the mentors observed and experienced. Finally, all mentors had voluntarily self-selected an interactionist perspective on teaching and learning (constructivism) and careers in the helping professions.

Regardless of the causal mechanisms involved in the mentors' development, the authors have offered significant qualitative evidence that supports the merits of their hypothesis, and hence they look forward to future investigations of this important aspect of academic mentoring with youth. Mentor development is probably essential to successful mentoring programs and therefore to positive behavioral outcomes for mentees.

Note

1. Dr. Reid is now president of St. Joseph's College in Hartford, Connecticut.

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92