The Impact
of a Service-Learning Experience
in Mentoring At-Risk Youth

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Service-learning experiences for college students are increasing in popularity. Although youth mentoring is thought to be a significant service-learning experience for students, data in this area are lacking. This study evaluates a unique school-based service-learning mentoring experience at a midsized Midwestern university. Data were collected throughout the course of one school year in order to assess students' motivation and learning. Data sources include surveys, focus groups, and structured writings. Triangulation of data sources revealed that the experience appeared to improve students' communication skills. They emphasized the importance of the mentoring relationship and a nuanced understanding of the complexity and diversity of their mentees' lives. Future directions include further examination of the impact of youth mentoring on all college majors, as well as measuring the long-term impact of the experience on participating college students.

Introduction

Service-learning as a pedagogy in higher education has experienced significant interest and growth over the past several decades. One common example of service-learning is youth mentoring. Although youth mentoring is thought to have a positive impact on college students (and,

particularly, education majors), very little research has examined the impact of this type of service-learning experience. This study used multiple data sources in order to create a comprehensive assessment of the impact of a unique youth mentoring experience on college students.

Service-learning is defined as "the pedagogies that link community service and academic study so that each strengthens the others" (Jacoby, 1996). In higher education, service-learning is intended to provide an opportunity for students to apply classroom-based learning to real-life scenarios (Waterman, 1997). Service-learning can take multiple different forms across academic field. Increased awareness of the role of service in higher education occurred in the 1960s, with the founding of such organizations as the Peace Corps and Volunteers in Service to America (VISTA) (Jacoby, 1996). The 1980s and 1990s saw a new wave of interest in service-learning with additional initiatives, including the creation of national offices by President George H. W. Bush and the founding of AmeriCorps under President Clinton (Jacoby, 1996). More recently, service-learning was recognized by the Carnegie ratings of higher education (Carnegie Foundation, 2011).

Today, service-learning appears to be valued by institutions of higher education across the country, and many such institutions have established offices dedicated to this purpose. Although there are no national standards, one classification system does shed some light on the diversity of experiences that typify service-learning at many institutions of higher education. It splits service-learning into three major categories: (1) direct service, which involves interaction between provider and recipient; (2) indirect service, which encompasses activities that do not involve the recipient directly but are planned for the recipient's benefit; and (3) advocacy, in which students lend voice to a group for their benefit (Missouri Department of Education, n.d.).

One common example of direct service-learning is youth mentoring. Youth mentoring has been defined as "a sustained relationship between a youth and adult. . . . [Through] continued involvement, the adult offers support, guidance, and assistance as the younger goes through a difficult period, faces new challenges, or works to correct earlier problems" (Office of Research, 1993, p. 2). The primary goal of these mentoring programs is typically a decrease in behavioral and emotional issues on the part of the mentee (DuBois, Neville, Parra, & Pugh-Lilly, 2002). Such mentoring can take place in schools, at work, in after-school programs, and in faith-based organizations (DuBois & Karcher, 2005). In particular, school-based mentoring programs have expanded rapidly in recent years because they are viewed as an efficient way to provide mentors within an already es-

tablished setting for young people at risk (Herrera et al., 2007).

Most studies of the effectiveness of youth mentoring continue to focus on the mentee rather than the mentor. One recent literature review found that mentor training, structured activities, frequent contact between mentor and mentee, parental involvement, and relationship monitoring were all related positively to improved youth outcomes (Bernstein, Dun Rappaport, Olsho, Hunt, & Levin, 2009). Much less is known about the impact of mentoring on the mentors themselves. In higher education, this type of service-learning is often used to support teacher education programs; thus, most of these studies are in the area of teacher education. Anderson, Daikos, Granados-Greenberg, and Rutherford (2009) characterize the professional literature in this area by stating that "participating in service-learning activities can be a powerful learning experience for teacher candidates" (p. 4). Beyond teacher education, research has shown that participating in service-learning in general has shown positive impacts on the development of civic responsibility and a weaker impact on life skills, such as interpersonal skills and sensitivity to diversity. However, findings in this and similar studies are limited because of reliance on self-report (Gray, Ondaatje, & Zakaras, 1999).

In sum, "additional outcome research on school-based mentoring is needed" (Portwood & Ayres, 2005, p. 345). The goal of this study is to expand the current literature through comprehensive evaluation of a unique, school-based, service-learning experience in mentoring at-risk youth. Multiple data sources were utilized to evaluate the impact of the mentoring program on participating college students. This particular service-learning experience differed from typical youth mentoring in two ways: (1) Although it qualifies as a "school-based" program, this program was located on a college campus, thus making it more accessible for college students; and (2) participating college students came from a variety of academic fields, not just education. The following research questions were asked:

1. What motivated college students to volunteer for this experience?

2. What was the impact of the experience on students' learning?

Methods

We (two of the authors) were the instructors of the service-learning course referred to above and described below, which was located at Miami

University, a mid-sized university in Southwestern Ohio. The university has approximately 17,000 students and is located in a rural area. A group of 20 of our undergraduate students participated in this study. We used three data sources to gather information regarding participants' experiences as mentors to at-risk youth: the Motivation to Volunteer Scale (MVS), Diagnostic Learning Logs (DLLs), and an end-of-year focus group. Quantitative and qualitative methods allowed us to analyze the various data sources. We achieved triangulation of sources through the use of logical analysis.

Participants and Setting

Participants were 15 female (75%) and five male (25%) undergraduate students. Twelve students were education majors (60%), seven were business majors (35%), and one was a science major (5%). Eighteen were Caucasian (90%), and two were African-American (10%). These 20 students were a subset of a larger group of 30 students who elected to take a one-credit-hour course entitled "Mentoring At-Risk Youth" during the 2010-2011 school year. Of these 30 students, 77% were female, and 90% were Caucasian. Fifteen were education majors (50%), 12 were business majors (40%), and three were science majors (10%). The 20 students were selected to participate in the study because they elected to remain in the course for the entire school year; thus, their responses could be compared across time.

This one-credit hour elective course, located in the educational psychology department, involved enrolled students in a one-on-one mentoring experience as part of the program "Campus Mentors," an on-campus alternative school whose work is supported by college students. Participating ninth and tenth grade student mentees had been selected for the Campus Mentors program by school leadership, on the basis of poor grades, attendance, and/or behavior, as being those most at risk for dropping out of school. Each college student was matched with a mentee based on self-reported interests and abilities.

Our mentoring course involved four primary components: (1) one face-to-face meeting a month, in which we provided students with tools and strategies to use with their mentee; (2) three "office hour" visits during the course of the school year, in which students received individual feedback on their mentoring; (3) four Diagnostic Learning Logs (DLLs), brief writing assignments in which students traced their learning process; and (4) the mentoring itself, for which each student was required to meet with his or her mentee once each week for 45-60 minutes. The mentoring sessions took place at the alternative school classroom. The college students were

required to submit to a criminal background check in order to be allowed to take their mentees out of the classroom. Mentor-mentee pairs typically took walks, played outdoor games (for instance, frisbee or football), or played computer games during their sessions.

We designed each course component to align with best practices in both service-learning and in mentoring. The DLL was designed as a way for college students to assess their own strengths and weaknesses, and to provide faculty with information needed to address learning issues (Angelo & Cross, 1993). Course content was also developed around best practices in mentoring, including mentor-youth matching, outlining expectations for the mentoring experience, providing ongoing training and support, and pre-match training. Structured activities, an additional "best practice," were also provided each week in the form of both large-group and individual activities (Rhodes, 2002). Examples of specific course topics covered included characteristics of families living in poverty, nonjudgmental response (responding to students without judging their decisions), characteristics of successful mentors, and Developmental Assets, a list of 40 factors that contribute to successful outcomes for young people (see http://www.search-institute.org/research/developmental-assets).

Instrumentation

In order to assess the impact of motivation and learning on participating college students, we selected three data sources: the Motivation to Volunteer Scale (MVS), the Diagnostic Learning Logs (DLLs) referred to above, and an end-of-year focus group. Data sources were selected as a way to gather feedback over time and to provide for triangulation, in that each presented a different view of the same phenomenon—namely, college student motivation and learning (Patton, 1990).

The Motivation to Volunteer Scale (MVS) is a 28-item scale developed by Cnaan and Goldberg-Glen in 1991. It was used to understand why participating college students chose to become involved in the program. The items encompass both altruistic and egoistic motivations, and the scale has a tested reliability of 0.86. Each item asks participants to rate "to what extent each motive contributed to [their] decision to volunteer." Items are rated from 1 (*not important at all*) to 5 (*very important*).

We selected the DLL as a way to document the college students' growth through the mentoring process. Specific questions on the DLL were adapted from reflection questions recommended in the "Service-learning Curriculum Development Resource Guide for Faculty" (n.d.), developed by the Center for Community Engagement of California State University

Long Beach). The five questions were as follows:

1. What did you accomplish this month?

2. Relate your experiences to the text and in-class presentations.

3. What community/youth issues were you made aware of through your experiences?

4. What leadership skills have you been developing as a result of mentoring?

5. Describe the most difficult/satisfying aspects of mentoring this month. How have you learned from your disappointments and/or successes?

Finally, we conducted an end-of-year focus group in order to gather additional data surrounding the students' evaluations of the experience as a group. The focus-group instrument was created by the Community-Campus Partnerships for Health ((Shinnamon, Gelmon, & Holland, 1999) to "describe students' perspectives and attitudes . . . related to their experiences with service-learning" (p. 2). Although the instrument was created for the health professions, the eight questions were easily adapted simply by removing the words "health professions" from one question. The focus-group questions asked students to describe and assess their service-learning experiences, including the following:

1. Please briefly describe the nature of your service-learning experience (what did you do?).

2. Why did you get involved in service-learning? What were your expectations?

3. What were the learning goals of the experience?

4. Describe how the service-learning experience related to your academic program of study. What connections were there between classroom discussions, assignments, required readings, or clinical experiences with the service-learning?

5. How would you assess the experience? Was it a success? Why? What factors contributed to the success? What obstacles did you encounter, and how did you overcome them?

6. Describe your interaction with your community partner [the teacher]. What was it like to work with a community person as part of your learning experience?

7. What did you learn about the community or society in general from this experience? Did the experiences leave you with new questions, concerns, or confusions?

8. What recommendations would you make to universities about offering service-learning as part of the curriculum?

Procedures

We commenced data collection on the first day of the course, which took place before the first mentoring session, and concluded before the last week of mentoring, on the last day of the course. We assigned the DLLs four times throughout the year, and we administered the MVS at the first and again at the last course session of the year. Finally, we administered the focus group in three groups, each during the last course session of the year. Data were audiotaped and then transcribed.

Data Analysis

In order to avoid multiple comparison error in analyzing the MVS, simple means were calculated for each question for both pre- and posttest. Then a t test was taken to compare overall means from pre- and posttest. The DLLs and the focus group data were coded through the use of inductive analysis. Those questions related directly to the analysis in this study (questions 3 and 4) were analyzed separately by following the categorization procedures as outlined by Patton (1990). First, we searched for "recurring regularities" in the data, ensuring that categories recorded encompassed all of the individual responses and, simultaneously, did not overlap other categories. Because participants' responses varied widely in length and depth, many responses fell into more than one category.

The focus groups were also coded by question. Four questions (2, 4, 5, and 7) related directly to the questions asked in this study. There were only three groups from this data source instead of 20 individual responses (as per the DLLs); however, several individuals provided responses within each of the groups. Again, we used inductive analysis to develop summary response categories. Table 1 illustrates how one of these questions was coded. Because of the brevity of the responses, categorization across the three groups was fairly straightforward.

Table 1
Sample Focus Group Coding (Question 2)

Group 1	*Group 2*	*Group 3*
• Did mentoring program in high school • Never worked with at-risk • Education major • Interesting opportunity • Hoped it would be a bonding experience • Had low expectations	• Opportunity for leadership role as business major • Thought it would be interesting • Have K-12 licensure, chance to work with high school	• Had another service learning experience • More one on one • Interesting to be with someone younger • Different perspective on teaching • Wanted to be a role model

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Third, after each question in both the DLLs and focus groups had been coded, we searched for patterns of similarity and difference across time. Patton (1990) terms this process *logical analysis*, which involves placing an additional classification scheme on the data in order to induce new patterns that tie data sources together. In this case, the scheme was *time*. This type of analysis allowed us to compare the three data sets, even though both qualitative and quantitative data were involved.

Time was measured differently in these three data sets. The DLLs were written at four different points in time and were chronological. The MVS was administered at the beginning and the end of the school year. The focus groups, although conducted at the end of the year, asked participants to reflect on the entire experience from beginning to end. Different questions focused on different parts of the experience, including expectations (beginning) and outcomes (end). In this case, logical analysis served two purposes: (1) It allowed comparison of disparate data sources, and (2) it achieved triangulation, or "bringing a variety of data and methods to bear on the same problem" (Patton, 1990, p. 446). In this case, "methods triangulation" was used because of the mixed-methods approach to data collection. Not only does this strategy bring out nuances in the data, but also it can enhance the credibility and quality of results (Patton, 1990). Table 2 shows how *time* as an overlay for the logical analysis was used to achieve methods triangulation. This method for developing patterns connected the data analysis with our original research questions.

Table 2
Logical Analysis Chart*

Data Source	Beginning Themes	Ending Themes
MVS	• Broaden horizons • Create better society • Develop relationships	• Broaden horizons • Create better society • Develop relationships
DLLs	• Wanted exposure to at-risk • Goal to develop relationship	• Develop relationship • Communication skills • Changing relationship over time
Focus Groups	• School work • Interests • Personal life • Goals • Relationship	• Activities • Goals • Personal life • Lack of time with mentee

Note. *Chart is a sample. It does not contain all themes from any data source.

Results

Motivation to Volunteer Scale (MVS)

Responses to the motivation to volunteer scale varied from 1.0 ("not important at all") to 4.8 (in which 5.0 is "very important"). The average rating across all 28 items was 3.1 for both the pretest and posttest. The lowest ratings (under 2.0) were given to four items: "I did not have anything else to do with my time," "I was lonely," "A relative or friend is/was a client of this agency," and "[I had] previous contact with professionals in this agency." Seven statements were rated high (over 4.0), including, "I wanted to broaden my horizons," "Volunteering in this agency provides challenging activities," "Volunteering creates a better society," "Volunteering is an opportunity to develop relationships with others," "Volunteering is an opportunity to do something worthwhile," and "This is an excellent

educational experience." No significant differences were found between pre- and posttest scores.

Diagnostic Learning Logs (DLLs)

Responses to the DLL questions often displayed common themes. Themes, representative quotations, and number of mentors whose responses displayed that theme in each question are listed in Tables 3 and 4. Each table displays responses to all four DLLs, in order. DLL question three asked mentors to describe community and/or youth issues they were made aware of by the mentoring experience. A variety of themes related to the population were mentioned, many of them recurrent, including peer pressure, bullying, violence, substance abuse, and poverty. Responses included specific events experienced by the mentee as well as reflection on the mentee's life (for instance, specific incidents in which the mentee was exposed to drinking or drugs, in addition to reflection on the effects of living in poverty or being the target of bullying on a daily basis). In particular, violence and substance abuse were mentioned most frequently throughout the year.

The fourth DLL question asked for self-reflection about the leadership skills mentors perceived they were developing as a result of the experience. Being a role model was a theme present in each of the four DLLs. Communication/listening skills were also mentioned as a major theme in each. In fact, the mentors' responses were quite consistent over time, and the majority of the themes emerging from their responses related to communication, including listening skills, patience, and conversational skills.

Focus Groups

The first question on the focus-group inventory asked the individual to introduce himself or herself to the group. The second question asked the mentors why they decided to become involved in the mentoring program and to recall their expectations of the experience. In each of the three groups, students indicated they became involved because they had participated in a previous service-learning experience offered by the university. While this service-learning experience was similar, it "had less tutoring and involved more leadership skills." A business major noted that "This was a grounding experience. I was able to build a relationship with my mentee." Each group cited the importance of being exposed to and working with a different population, such as at-risk students or high school as opposed to elementary students. Respondents from two of the

Table 3
Responses to DLL Question 3

DLL Number	Theme	Number of Mentors	Representative Quotations
1	Low emphasis on school	6	Work taking precedence over school is another [a common?] issue.
			Many of the students seemed as if school wasn't their main priority
	Substance abuse	5	Underage drinking at age 14 [was] supported by parents or friends' parents.
			Many teens feel as if they will never rise above their life situation. They often turn to things such as drugs, alcohol, and violence.
	Poverty	5	Students [are] living with many other people, not having their own place in their house and having to keep track of their things.
			[My mentee] grew up on a farm in a large family that has lower than average socio-economic status.
	Need for mentors	3	I realized how important it is to have someone successful and influential to look up to.
			I realized right away how much attention these kids are looking for, and how their parents aren't giving it to them.

Table 3 (*continued*)
Responses to DLL Question 3

DLL Number	Theme	Number of Mentors	Representative Quotations
2	Violence/substance abuse	7	My mentee told me that he has a reputation for being a "fighter."
			I have become aware of the extensive amount of drug/alcohol usage within their community.
	Lack of support	5	It is evident that his data doesn't show as much love and/or support towards him.
			It seems that most of them **[the mentees?]** do not have a good role model to look up to on how to plan ahead for a successful future.
3	Violence/substance abuse	12	I have never seen an example of bullying before, but it is evident that my mentee is being bullied every day at school.
			[My mentee] has openly discussed with me about smoking cigarettes and drinking.
	Personal life	7	It **[Being a mentor?]** makes me a little bit more aware of any single parenting families in the area and teenage parenting.
			The **[mentee's?]** brother currently cannot live with his adoptive mom . . . because she is currently dating and living with a sex offender.

	Goals	7	We talked about how we can turn the stress of school into motivation at home to get her homework done.
			Talking about goals and giving my mentee a perspective on the future is important.
4	Violence / substance abuse	11	I know things like this happen, but it made me sad that people would attack a girl who obviously is not nearly old enough to be in college.
			She said students are in the minority if they do not partake in this, and she often feels extreme peer pressure from her friends and other students.
	Goals	4	I need to figure out what they want to do in the future and also help them to make decisions now in order to help them succeed with their goals in the future.
			Constantly being exposed to people who have no ambition is not a good way to teach students how to work toward a big goal or desired outcome.
	Poverty	2	[My mentee] almost always wears shorts to class because he doesn't have that many pairs of pants, even in this freezing weather.
			[My mentee] had his cable shut off this year because his family couldn't afford it.

Table 4
Responses to DLL Question 4

DLL Number	Theme	Number of Mentors	Representative Quotations
1	Communication skills	18	I found that my mentee has a lot to say and it was important for me to listen.
			[My mentee] . . . just wants to have someone there to talk to, about anything.
	Role model	8	I have had practice in being a role model and making sure that everything that I say will be encouraging and helpful to my mentee.
			In no way do I claim to have everything figured out, but I have learned that being a positive example can have a great effect on others' lives.
2	Communication skills	10	This approach has forced me to ask her more open-ended questions and not let her [**my mentee?**] answer with just yes, no, or I don't know.
			I have learned to listen and not jump to conclusions.
	Role model	6	In this way I am trying to lead by example without making it seem like I am telling her what to do.
			During these past few meetings I have been learning how to carefully lead by example.

3	Communication skills	12	I have developed the ability to voice my opinion about things more easily. My relationship with (my mentee) makes me think first before I speak.
	Role model	4	The one skill I have mostly noticed in the past few weeks is being a positive role model through my words and my actions. Since [my mentee] has been in trouble a lot this month I have developed leadership skills as to how I can be a good role model for her.
	Patience	3	When my mentee continues to struggle with something I have to be patient with her and not show frustration. I have had to exert a lot of patience in order to stick with it and hope one day he will start to trust me and open up.

Table 4 (*continued*)
Responses to DLL Question 4

DLL Number	Theme	Number of Mentors	Representative Quotations
5 [4?]	Communication skills	8	I have really learned how to be more patient with people because I really have to work to get any type of response from [my mentee].
			The ability to communicate effectively has helped me develop a relationship with my mentee.
	Goals	5	[The experience] has helped me to be a more effective motivator to people who are starting to doubt their ability to accomplish a goal.
			I've been developing the skills to motivate my mentee to do better in things he knows he doesn't try as hard as he can at.
	Role model	4	[Students] need to know that you care about them, but you also need to show them that they need to respect you and look up to you like a role model.
			I was able to act as a big sister/guidance counselor to my mentee and these roles have stretched me beyond my everyday leadership skills.

groups indicated that they tried not to have any expectations, or at least to have realistic expectations. One mentor said, "I expected it to be good and knew what they (the mentee) get from me, I'd get from them." One of the participants said s/he had served as a mentor when in high school, but that this experience was more successful.

The fourth focus-group question addressed the learning goals of the experience. Each of the focus groups cited a different goal. Responses included dealing with a different population, being a good listener, developing a relationship to work on personal issues, working with the mentee on his or her learning goals, and being able to have a relationship without judging the mentee. The participants were then asked to describe how the service-learning experience related to their academic program of study, and what connections there were between classroom discussions, assignments, required readings, or clinical experiences with the service-learning. Education majors indicated they were working toward a secondary school license and that "this was the age group of students I will teach." Others said they would be working with an at-risk population, so that their academic program of study was directly related to learning difficulties and differentiated instruction. Many of the mentors' comments surrounded the importance of the relationship that was developed with the high school student. These comments included trust and respect issues, diversity, availability, listening and remembering what was said, and patience. A business major felt that the primary connection was "examining human behavior in marketing."

The fifth focus-group question asked for a global assessment of the experience. Students from all three groups felt the experience was successful. The most common reason for this assessment was the relationship and bond that was developed between the mentor and mentee. One mentor commented, "You get to watch her [mentee] grow, and now she is passing all of her classes, and I grew as well as she did." Another reason given as evidence of why this was a successful experience was the data on the improvement in the high school student's grades. A more reserved remark regarding the program's impact cited the difficulty a mentor experienced with getting the mentee to open up and engage in the mentoring process. A factor that contributed to the success of the experience for one mentor was the commonality with the mentee's family structure.

Finally, when asked to describe what they learned about their community or society, students in all three groups mentioned various differences between their own backgrounds and those of their mentees, including family structure, school experiences, and/or income (for instance, "My mentee's family experience was much different than mine and where I

grew up"). Mentors expressed learning from those differences based on that recognition (for instance, "I realized I was in a bubble in high school"). Few concerns were raised, but some education majors mentioned how much more difficult it would be dealing with an entire class and mentoring each student, in addition to maintaining appropriate boundaries (for instance, "I'm going to be having to make the connection with 20 students instead of one").

Discussion

The results of the logical analysis revealed three common threads that, taken together, summarize the impact of the experience on participating mentors. First, responses demonstrated an awareness of the diversity and complexity of the lives of this specific youth population. Second, participants appeared to be seeking out challenge in pursuing this particular service-learning experience, and they felt it would add value to their learning. Third, improved communication was mentioned most consistently as a skill that participants claimed to develop from the experience.

Participating mentors demonstrated increased knowledge and awareness of the complexity of the lives of this population of students. They indicated learning about how these youth were easily influenced by others, how their background influenced their school performance and motivation, and they discussed details about students' home lives and family relationships. Many of the issues raised were quite negative: poverty, drugs, alcohol, school failure, homelessness, lack of motivation, bullying, peer pressure. Yet data also pointed to mentors' perceptions that these youth could change and make better decisions. Further, mentors appeared to believe that they could (and did) make a difference in their mentees' lives. Such resilience, the ability to remain positive in the face of multiple obstacles is critical for mentors and others in the helping profession.

The mentors appeared to value the relationship with their mentees from the start, as seen in their responses to the MVS and their discussion of expectations for the experience. Many reported having previous experience with service-learning. Many of their comments related to their mentee relationships were positive, including their role as leading by example, the development of their communication skills, mutual growth, the need for consistency in the relationship, and the perception that they had made a difference in the lives of their mentees. The DLLs provided more information on the kind of communication skills mentors believed they developed through this experience. Specific skills mentioned included listening skills, remaining positive, and offering nonjudgmental responses.

The results of this study do shed light on one of the major gaps in the service-learning literature: whether service-learning contributes to subject matter learning, such as "complex problem analysis, social problem-solving expertise, and reflective judgment or post-formal reasoning" (Reardon, 1998, p. 67). The mentors involved in this study appeared motivated by a challenge at the outset of this experience, and they discussed this challenge throughout their DLLs and in the focus groups. Their reflections demonstrated the use of problem analysis and reflective judgment in that mentors understood the negative issues to which mentees were exposed and the negative choices that the mentees made, yet they also described how they helped their mentees address these issues, set goals, and (hopefully) make better choices. They mentioned the development of specific skills that assisted their mentees in addressing some of these issues, including listening skills and nonjudgmental responses. Working through these issues with mentees appeared to be a new experience for many of the mentors, as the differences in backgrounds between mentors and mentees was apparent across data sources. It is important to note that these responses were consistent across major, because previous research in the area of youth mentoring has focused primarily on education majors (Gray et al., 1999).

Diversity is the final theme that cuts across the data sources. Students' responses to the MVS alluded to diversity in having become motivated to broaden their horizons, but the theme is displayed more prominently in the responses to the DLLs and focus groups. When mentors were prompted in the focus groups to connect this experience with their chosen field of study, learning how to respond to differences between themselves and the mentees was a theme across major. Diversity was mentioned explicitly (for instance, "I learned about diversity"), in addition to related skills such as understanding human behavior, listening skills, the ability to respect others' points of view, and patience. Although education majors made a direct connection between the experience and their future as teachers, other majors appeared to make a connection as well, in terms of the necessity of working with and/or serving individuals from diverse backgrounds.

Building relationships and learning the subset of communication skills alluded to by the mentors fall under one of the most powerful demonstrated impacts of service-learning: growth in personal development. Mentors referred to personal development when they spoke of mutual growth, in the belief that not only did they have a positive influence on their mentees, but that the mentees had a positive influence on them. This concept of mutual growth is also a major goal of youth mentoring (Hamilton & Hamilton, 2002). Similarly, mentees discussed the importance of being a

role model for others, of leading by example.

Repeatedly, the mentors mentioned the importance of listening and understanding rather than judging the perspectives and behavior of the mentees. Certainly, respect for diversity is an intended outcome of service-learning experiences (Giles & Eyler, 1998). However, the results of this study appear to go beyond "tolerance" of diversity to a deeper understanding of its importance and how to communicate with and build a relationship with individuals with very different backgrounds from one's own. In fact, some mentors even expressed the realization that they lived in a sheltered world, in their past/home lives and/or in their current lives as university students. Not only did they better recognize and describe differences between their and their mentees' backgrounds, but some appeared to reach the conclusion that there was much to the world that they had not experienced.

As the instructors of this course, we too noted these themes in our observations. Although students entered our class with the knowledge that they would be working with an at-risk population and with a stated goal of broadening their horizons, they appeared to come away with an understanding of just how different the lives of these students were from their own. They learned about different family structures and some stresses on students' lives to which they had never been exposed. They also learned about how important a stable relationship can be in the lives of these youth.

Communication skills were also mentioned repeatedly in our interactions with our students. When confronting an issue some of our students labeled as "shocking" (for example, mentees discussing encounters involving alcohol, sex, drugs, and bullying), they learned to pause, refrain from responding with their initial reaction, take what they learned from class about that student's background, and keep in mind that judging the student or lecturing/preaching would not be helpful in terms of moving the student and the relationship forward. Instead, they appeared able to guide the student in working through the issue, discussing consequences with the student, and helping the student to consider how the issue might impact him or her long-term.

Implications

The results of this study show potential for a service-learning experience in which college students across majors mentor at-risk youth to facilitate a variety of positive outcomes. Triangulation of three data sources demonstrated that the college students involved in this study emphasized

the importance of the mentoring relationship to which they had been assigned, recognizing some of the major contributors to the success of such a relationship. They also reported developing some of the specific skills that mentoring can affect. Additionally, participating mentors appeared to go beyond a basic understanding of both risk factors of youth and the differences between their own backgrounds and the backgrounds of their mentees. They communicated an understanding of the value of diversity and the importance of not judging an individual because of perceived differences. Some students also demonstrated a recognition of the limitations of their own backgrounds, thus addressing some of the service-learning outcomes that may not be well documented in the professional literature (as per Reardon).

As school-based youth mentoring gains in popularity as a service-learning experience for college students, the findings of this study add to the scant literature in the area. First, the results suggest that college students can develop some important skills from such an experience, including communication skills, problem-solving skills, and the ability to remain positive in a challenging situation. Second, such experiences have the potential to teach college students about the complexity of the lives of the population they are mentoring. This knowledge can lead to a deeper, more mature view of diversity and resilience in diverse populations. Third, little research has been conducted on the impact of working with youth on non-education majors. This research shows few differences between perceived impact on education and non-education majors, suggesting that working with youth may be beneficial regardless of major.

Given these findings, as instructors we plan in future course offerings to hone in on and develop more explicitly through the course some of the knowledge and skills indicated as growth areas by our students. In particular, we will add more academic information and writing related to the impact of poverty on children and families, sustaining relationships, combating bullying, and juvenile justice/rehabilitation.

Not surprisingly, this participating group of self-selected college students (regardless of major) appeared motivated by a challenge from the outset. They felt that the experience would make a difference and valued the opportunity. As we consider the results of this study and move forward with research in this area, it is important to recognize that this particular group self-selected into the course. An important question for future research would be whether similar results would ensue from a group of students who had been assigned a service-learning placement rather than volunteered for it. In other words, given common institutional goals such as instilling the value of diversity and exposing students to challenging

real-life situation in which they must use acquired skills, can and should colleges and universities require these experiences of their students? If the answer is yes, colleges and universities might wish to consider an on-campus program such as this one that can be easily accessed by students.

Finally, although this study examined the experience from a variety of angles and used different data sources, the major unanswered question involves whether the college students involved were able to transfer their newly acquired knowledge and skills into their future lives and workplace. As instructors, we would appreciate the opportunity to observe our students both in the mentoring setting and in future settings in which they interact with diverse populations. Although difficult to measure, the long-term goal of these experiences is to change participating students' practices when working with future clients and students in the broader community (DuBois & Karcher, 2005). As colleges and universities increase their involvement in service-learning as part of the general curriculum, it is important to measure the long-term impact of these experiences, particularly in an era that demands accountability for educational practices.

Limitations and Conclusions

The major limitation of this study is in the relatively small number of participants, and in the fact that only two thirds of the original mentors chose to continue to mentor for a full school year. Clearly, some of the turnover was due to student scheduling; however, the reasons why individuals did or did not continue are unknown. Limited data are available on those individuals who did not continue with the course. Additionally, the data sources utilized as part of this study did not include direct measurement of the mentoring relationship through techniques such as observation. Adding direct measurement as a data source would have contributed to the validity of the results.

In conclusion, the service-learning experience evaluated in this study did appear to impact participating college students in terms of both knowledge (for instance, of diversity) and skills (for instance, communicating with diverse learners). Additionally, most appeared able to connect the experience with their major field of study. Common themes seen across data sources include an emphasis on the mentor-mentee relationship, a deep understanding of the complexity of mentees' lives and backgrounds, and an acknowledgment of the various ways in which exposure to diversity can impact students in a positive manner. Future research should include follow-up with mentors to determine the long-term impact of such an experience, and whether the impact differs according to whether

students are assigned to the experience or volunteer for it.

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