

# A Service-Learning Project Involving Multiple Service Projects Including the Mentoring of Younger At-Risk Youth



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## Abstract

This paper describes the study of a past service-learning program that resulted in a unique opportunity for students in a college of agricultural sciences and natural resources to mentor at an alternative school for at-risk youth. It investigates the benefits in general of the service-learning program for both groups, the additional benefits of including the opportunity to mentor the at-risk youth by college age students and the techniques used to gather and analyze the information gathered. It utilizes a mixed paradigm design to analyze qualitative and quantitative data from three specific sources, including responses to a survey of former landscape architecture students who participated in the program, interviews with the teachers of the at-risk youth, and the youth's own journal entries. This system proves to be a valuable, holistic method for evaluating qualitative data. The study also finds positive reactions from both groups of students to the service-learning program itself. Furthermore, the landscape architecture students agreed that the project was one of the most valuable studio experiences they had undertaken while in college. The study results also suggest that mentoring can enhance the service-learning experience for both groups of very diverse students.

## Introduction

This study was undertaken to examine a service-learning program that took place in the fall of 2003 and included two sets of students. The first was a group of at-risk youth ages 10 to 17 yrs old from a local alternative school for juvenile delinquents known as the Juvenile Justice Alternative Education Program (JJAEP). The second was a group of landscape architecture (LA) students in a Materials and Details class in the College of Agriculture and

Natural Resources. The study focuses on three aspects of the program: the benefits of the service-learning program in general, the benefits of including opportunities to mentor as a significant part of the program, and the subsequent assessment techniques for evaluating the program and determining the benefits.

According to Kendall (1990), a community service-learning program can be especially beneficial in developing important civic and social responsibilities for students by emphasizing the completion of projects that meet the needs of society in combination with rigorous educational content.

From the landscape architecture perspective, it was important to assess the benefits of including a service-learning project as a part of a standard, required course. In the case of the particular service-learning project that this study investigates, it was also important to determine the benefit of mentoring younger, at-risk students to see if it enhanced the learning experience and helped to develop a greater sense of citizenship that is paramount to the service-learning pedagogy.

In almost every aspect of a landscape architect's professional practice, the designs and projects they develop ultimately serve to enhance the surrounding community. This is the inherent goal of public sector projects such as a neighborhood park, urban streetscape or community revitalization projects. But it is also the case when the client is from the private sector, such as a design for a new town or a commercial business park for a private developer. For both the private developer and the public at large, the designs created by the landscape architect ultimately become an integral part of the community fabric for years to come. Sharky (1994) notes that landscape architects need to commit themselves to the betterment of society through the improvement of the community while keeping true to the fundamental

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values of our natural resources. Rogers (1997) goes on to say that professionals are expected to encourage and involve the citizenry in the design process.

Consequently, students of landscape architecture, in conjunction with their environmental stewardship, need to develop civic responsibility, to better serve the public at large. Service-learning is an ideal method for promoting and instilling a sense of civic responsibility. Billig and Welch (2004) terms this concept "civic engagement" and defines it as "working to make a difference in the civic life of our communities and developing the knowledge, skills, values and motivation to make the difference" (p. vi). Billing and Welch (2004) emphasize that service-learning offers an extremely powerful tool to promote civic engagement and help students understand and become knowledgeable of community needs. Additionally, as with other college courses, many landscape architecture design assignments are of mock situations that students often find difficult to associate with future real experiences. Students often put less effort in their class because once the project is completed and grades are earned, it is over (Bullard and Maloney, 1997) and there is no consequence associated with their efforts. Consequently, an important goal for the LA students was to have an opportunity to work on a real civic project with very real civic responsibilities.

These same goals were a part of the original purpose of the Liberty Nature Trail project as proposed by the JJAEP administrators. The idea was to provide the at-risk students who have little social or civic responsibility with the opportunity for a hands-on group experience that benefits and improves the community. The students would learn the importance of giving back to the community instead of becoming the so-called menace to society. In the process they could develop basic, as well as formative interactive personal skills which they would use for the rest of their lives. McGuinn (1999) found indications that a vocational horticulture program may be helpful in improving social bonding among juvenile offenders. Similar results could be obtained using a natural resources context geared toward landscape site design.

When the opportunity arose to include landscape architecture students in the project became an opportunity for the older students to mentor the younger JJAEP students. Becoming fully engaged in a project with the LA students as mentors, who were not perceived as authority figures, would encourage the younger students and enhance the overall experience. The McGuinn (1999) study also utilized mentors as an integral part of the program. Furthermore, Schmidt and Robby (2002) found that school-aged students in a primarily lower socio-economic neighborhood expressed that they learned more from their college student tutors. In that study, the younger students wanted to keep the same tutor when he or she valued diversity. Therefore, in this

project, the college students were to play a very important role as mentors in the development of the JJAEP students.

The final aspect of this study was to analyze assessment techniques used to collect and interpret data from various sources. Little assessment evidence has been developed to fully understand how different methods can be used for research (Gelmon, 2000). With few projects connecting service-learning and mentoring, it was difficult to determine the most appropriate assessment techniques. Therefore, this study utilized a Mixed Paradigm Design, as described by Shumer (2000) in order to collect and analyze a variety of qualitative and quantitative information from several participant groups. This method combines methods from the physical sciences with interpretive approaches and can provide a broader, more complete study of multiple perspectives (Shumer, 2000). The sources included reflective writing journals completed by JJAEP students, interviews with JJAEP teachers, and a survey of former LA students that solicited responses to specific questions and prompts for open-ended written responses.

## Methods

In 2001, the JJAEP principal and staff applied for and received a Title IV grant from the state to conduct a service-learning on their campus. The project was the construction of the Liberty Nature Trail as an extension of a park that had been built the year before behind the school's campus. The trail site itself was at the edge of Yellow House Canyon within the city limits and is owned by the county who gave permission for the use of the land. It is an environmentally significant and unique ecological zone at the edge of what is known as the caprock. Many species of plants are found only in this zone, and it was therefore an ideal area for teaching and learning about the local natural landscape that is a part of the local community.

Although they had the funds to purchase materials and services no one at the school knew how to design such a large scale project in an important and sensitive natural environment. The JJAEP councilor in charge of the project contacted the Landscape Architecture Department in the College of Agricultural and Natural Resources at Texas Tech University. The instructor for a class studying building materials and methods for developing construction documents envisioned a wonderful opportunity for his students to learn more than just how to draw plans for a theoretical, non-descript studio project. In the past, students had responded well to actual projects and the opportunity to work with actual clients. They could learn on the job experience by having the JJAEP students as clients while working on a project that would actually be constructed.

Seventeen LA students and forty-four JJAEP students participated in the design development of the nature trail project. All of the JJAEP youth were considered at-risk students because of their expulsion from mainstream schools. About half had been adjudicated through juvenile judicial court for crimes ranging from substance abuse to sexual offenses. All but three were minority, while eight of the 44 were girls. About a third was classified as special education students.

The landscape architecture group consisted of seventeen students in all. Fourteen were undergraduate students in the fourth year of a five year professional degree (BLA) program. The remaining three were graduate students in the second year of a first professional degree (MLA) program. There were eight females and nine males.

Each college student was paired with two or three JJAEP students who would become their clients. The pairings allowed for one-on-one interaction that was more beneficial to all students and logistically easier to manage. The groups were matched according to personalities, age appropriateness, and the college students' experience in working with youth. This was accomplished at an initial meeting between the college students, their professor and the JJAEP councilor in charge of the project. For example, an older graduate student, who had experience with her own teenagers, and undergraduate students who had previous experience working with at-risk youth, were paired with the more difficult students. Additionally, the female students who were somewhat nervous about the project were paired with female JJAEP students. Notably, all LA students were given the option of an alternative assignment in lieu of the JJAEP project if, at anytime they felt uncomfortable or threatened.

Since Fox (1994) indicates that it is vital that students understand the importance of not having any preconceived notions while working with kids of any population, the college students were briefed by the JJAEP councilor in charge of the project about the possible reasons JJAEP youth were assigned to the school. However, he cautioned that, by law, they were not allowed to ask the details of the specific reason behind the disciplinary action that sent the student to JJAEP. The college students were told that the JJAEP students had many difficult issues, yet they were encouraged to be at ease and to interact with them as they would any other youth of the same age. All questions and issues were addressed which helped curb any prejudices, concerns or fears that the college students may have had about working with the at-risk youth. The councilor also assured the LA students that security measures and personnel were in place for the protection of everyone involved.

The LA students began their involvement in the project by developing a base map of the proposed site in preparation for their initial meeting with the JJAEP students. The LA students traveled to the

JJAEP campus where they were introduced to their JJAEP counterparts. The student teams then toured the site together using the base maps for reference. They were able to explain to the JJAEP students issues such as what the landscape architecture profession involves, the importance of the natural setting, and the significance of the native plants that they encountered. The LA students solicited preliminary ideas for the trail from the JJAEP students and offered additional suggestions. They discussed various aspects of the project from the unique natural setting to specific plant species and what it was like to be a college student. The landscape architect students then prepared conceptual plans for the trail in their design studio for presentation to the JJAEP students. The plans included a layout with images of similar structures such as a deck, steps, bridges and arbors as well as photos of proposed restoration plants. Based on comments from the JJAEP students, the LA students then developed more complete construction documents and presented them again to the JJAEP students. At the final meeting the teams of students worked together to develop a materials list and cost estimate for the project. That meeting concluded with a service-learning discussion session lead by the grant contract manager, JJAEP students, faculty and administrators. To a limited extent the LA students also had the opportunity to participate.

Throughout the course of the design of the Liberty Nature Trail project the JJAEP students were required to keep journals with periodic entries about their experiences. These entries included their ideas, how they felt about doing community service, preserving nature, working with college students, and any academic improvements in their class work. The journals, along with the meeting with grant contract administrator, provided the reflective activity component for the service-learning project.

For the landscape architecture students and professor, their recruitment as participants in the project turned out to be an introduction to service-learning and consequently, their first service-learning project. Their presentations and limited participation in the concluding group discussions served, fortuitously, as service-learning reflection activities.

This study was undertaken three years after the completion of the design of the nature trail by the landscape architecture students and was conducted by the original professor and councilor (now administrator) involved in the project. The professor (and author) became more formally involved in additional service-learning projects and felt it would be beneficial to return to the JJAEP project and document its particular benefits. Working with the JJAEP administrator (and co-author) they decided to look specifically at the overall benefits of this particular service-learning project for both LA and JJAEP students, the benefits of including the mentor aspect, and a review of the assessment techniques used to evaluate the program.

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In keeping with Shumer's Mixed Paradigm Design for collecting and analyzing qualitative and quantitative data, three sources of available information were utilized. First, the original student journals were reviewed by the authors of this study to determine predominant themes and attitudes of the students. Secondly, a group interview with the original JJAEP teachers who worked with students during the project was conducted by the authors. And finally, a web-based survey of the landscape architecture students, who had since graduated, was conducted in order to determine their initial and subsequent attitudes about the project. The survey included specific questions as well as open ended questions that solicited written responses.

### Results and Discussion

With respect to the JJAEP students, the student journals and interviews with their teachers indicate very positive results both in terms of this specific service-learning project. Many of the JJAEP students took pride in the work of planning and working on the design of the nature trail. Their journal entries expressed pride in the fact that they could actually see their ideas incorporated into the final design of the project. They also felt good about the purpose behind the trail and were excited that the trail could also be used by others as it was very close to a city park. Some specific journal entries include:

*"It feels good that others can learn from what I did on the project."* (15 year-old girl)

*"I like that little kids will come here and learn about nature like I did while working on the project."* (13 year-old boy)

*"I hope a lot of people come through the trail. We did a lot of work planning and making it. I hope they like it as much as I do."* (14 year-old boy)

The feeling of contributing something to the community was a different yet good feeling for the JJAEP students. Most of them had never participated in a program where others would benefit from their labor. Before the project, the students had difficulty understanding the importance of their role in their community and society as contributors as opposed to a treat. The journals indicate they began to realize they can have a positive role in their community. One example includes:

*"I would be extremely mad if somebody messed up our trail on purpose. Now I know what it feels like, so I'll be more careful about not messing up other people's stuff."*

Interviews with the teachers involved with the students at the time of the project also support positive results from the service-learning project. The teachers recalled that overall, students grades improved significantly throughout the course of the project. At the start of the project, many of the students were not passing some or most of their classes. The teachers also felt that one reason for this change was because they made sure the students

knew that being allowed to participate was a privilege. The JJAEP students had to be showing progress in their classes in order to work with their college student mentor. In the interview, the teachers indicated that of the 44 students who participated in the project, many of them were struggling to pass some or most of their classes. By the end of the project, 39 were passing all of their classes.

Reviews of the student journals and teacher interviews indicated that the opportunity for mentoring by the college students had a positive effect on the JJAEP students and enhanced the service learning experience. A recurrent theme found throughout the journals was the bond the JJAEP students felt with their college age mentor. For example, many expressed that they felt empowered because they were consulted for their ideas and that such an experience was a new and exciting experience for them.

They also wrote about how they worked harder to pass their classes just so they would be able to work on the project and be with their college mentor. A few students, however, did see it as a chance to get out of class. With that one exception, the students writings were consistent with the findings of Schmidt and Robby (2002), concerning the increase in learning by school-aged students from lower-socio-economic neighborhoods due to the involvement of mentor as tutors.

Interviews with teachers provided additional information concerning the benefits that mentoring had for the JJAEP students. Generally, the interviews revealed that, during the project, the teachers recalled how the LA students guided, assisted and observed the younger students and encouraged them without becoming over-bearing. The teachers commented that the JJAEP students often talked with their mentor about his or her background, college life, how they paid for their education, and other topics they were curious about or were foreign to them. The LA students were limited as to what they could ask the JJAEP students due to privacy laws, but they were encouraged to be open and create an inviting working relationship. They did not have to be encouraged to discuss the importance of education because it was clear to them that the younger students needed to be convinced of the value of a good education.

The teachers were impressed, and in some cases surprised that the college students did not shy away from the youth even though the behaviors attached to them were not positive.

Some of the more specific examples of the benefit to the JJAEP students of working with the college students included an observation by one of the teachers that many of the students became more outgoing and gained confidence as they worked with their college mentor because they had a voice in the design of the project. The math teacher noted that the JJAEP students were readily accepting of the college

students and were more willing to engage them than the adult teachers. She was also impressed with one student who, while working on the cost estimate, discussed with his college mentor how the same system could be used to develop a personal budget.

The web-based survey of the landscape architecture students resulted in indications of the benefits of service-learning in general as well as the positive aspect of mentoring the younger students had on the program. Sixteen students were contacted and thirteen completed the online questionnaire; the response rate for the survey was 68%. All but one of the respondents is practicing landscape architecture at a professional firm; eight are currently employed in the private sector as consultants; four work as designers or builders; one is attending graduate school. The average age for the respondents who completed the questionnaire was 26 years; eight of the thirteen were male; none are publicly employed, and none had yet been licensed as landscape architects.

All of the respondents indicated they recalled their participation in the Juvenile Justice Alternative Education Project. Ten of the thirteen respondents (77%) indicated that they included their participation in the project in their employment portfolios, presumably regarding this work as an asset when presenting their credentials to prospective employers. Furthermore, one third placed even greater importance in the project by including it in their cover letter or mentioning it in a job interview.

All respondents either agreed or strongly agreed that their participation in the JJAEP Liberty Nature Trail project was "one of the more valuable learning experiences" they had in college. All also agreed or strongly agreed that the value of their experience related directly to their work with JJAEP students as clients. And all but two respondents agreed or strongly agreed that the opportunity to mentor these clients improved the respondents' learning experience. Moreover, nine of the respondents (69%) agreed or strongly agreed that, in retrospect, their work on the project turned out to be more important to them than they thought at the outset.

These sentiments were reinforced by the qualitative narratives that were submitted in response to three open-ended writing prompts:

*"Please describe your thoughts about the value of the project as a studio exercise when you were working on the project in school."*

*"Please describe your thoughts about the value of the project now, in retrospect."*

*"Please feel free to provide any additional comments."*

Respondents' thoughts on the value of the project focused on how unique the experience turned out to be compared to other college work. Further, respondents appreciated the opportunity to work on an actual project with real clients and a real site. One respondent summarized these themes as follows:

*"I was very excited about it because it was extremely different than anything we had ever worked on previously in school. The idea of working with the actual students at JJAEP and the ultimate outcome we were striving for was a definite attention grabber. It as a 'real world' exercise which is always the most helpful. And, we were working outdoors and away from campus which I felt was an added incentive and motivation to do a great job."*

Another respondent reported:

*"The project was a good opportunity for us to get out of the studio and interact with the actual end users of a project. As well as see an actual site that development would occur. This helped in terms of analysis and inventory."*

The respondents also gave a retrospective analysis of their experience with JJAEP. Again, the major theme of these responses highlighted the real-life feel of the process, especially with regard to working with adjudicated juveniles. A comprehensive analysis was given by one respondent as follows:

*"Looking back, I feel I took a lot of the project for granted. I wish I would have done even more for the JJAEP students. I absolutely loved the whole project idea at the time. I just wish now I could have spent more hours on the project. Other class work seemed to take my time away. However, looking back, it was still one of the more beneficial classes, especially for the materials and details side of things. When drawing up details, it is really hard to totally understand what is actually going into the ground because you are just drawing things on paper. In classes most of the time we never really went out and saw things put into the ground the way you drew them. Things always come out so different it seems. I feel to see things in front of you on site the way you drew them teaches you better than any one class can do. ... The JJAEP project however allowed us the opportunity to draw up details and designs and then actually see those details in real life, actually being built."*

Many of the responses to the narratives provided insight from the perspective of working with the JJAEP students and the opportunity to mentor them. Some examples included:

*"As a studio project, I think it gave my classmates a new understanding of what can happen at a young age. I don't think any of them have ever been around kids like the kids at the JJAEP. It gave us another view to look at when dealing with clients, of all ages/backgrounds."*

*"One of the most memorable aspects of the project was when the students were asked to describe how they felt working with us. The kids were there because they had done something against the law to send them there. The introduction to nature and the outdoors helped them to open up and describe how they believed they could help and become productive citizens."*

*"The ability to see what a client wants and what a client thinks they want. Sometimes this is very different. JJAEP was a great example because the*

*kids just wanted to have typical activities until they were introduced to what a nature walk consists of and this triggered areas in their lives that had never been touched."*

Moreover, two of the respondents succinctly put the landscape architecture component of the project into perspective with regard to the greater good of improving the lives of society's at-risk youth:

*"I think more attention should have been paid to mentoring the students, which would have taken away from the landscape architecture but could have changed a kid's life."*

*"I greatly appreciate participating in the project. It reminded me a lot of high school and brought [me] back down to ground level. I look at it now and realize that we probably did some good for the kids; hopefully one or two will become better."*

These survey respondents recognized and reported the value of the JJAEP project in terms of both personal and public interest. It was a unique enhancement to their study of the field, but also an opportunity for their work in landscape architecture to develop life-skills and enhance citizenship, both for the student-respondents, and the adjudicated juvenile clients, especially since the clients themselves were also part of the unique learning experience.

Notably, the responses were from students who had graduated and had been working in professional landscape architecture offices for about two years. Consequently they have a more practical and realistic view of world than wide-eyed college students, yet they still believed that improving the life of an outsider to society was an important enough undertaking that it should be a greater part of their basic preparation as a landscape architects.

### Summary

As expected, the results of the study indicate that the service-learning project in and of itself was a beneficial learning experience for both groups: the at-risk youth and the college age students. Both groups felt a sense of accomplishment and pride in their work and showed a greater understanding of the value of community. Additionally, the student journals, teacher interviews and the survey of the college participants indicated that combining community service-learning with a program of mentoring opportunities enhanced the project's learning outcomes.

The learning experience could probably be improved by increasing the time the mentors and their assigned youth spend together. The college students in their survey, the JJAEP youth in their journals, and faculty in their interviews all agreed that more contact time would have been beneficial. Scheduling was a difficulty due to the university's studio schedule and JJAEP's academic requirements. If a project were to be implemented that allowed for

more contact hours, issues of adjusting academic priorities, logistics and allocation of resources, including staff hours, would need to be addressed. However, DuBois and Neville (1997) found that increased contact between mentors and students increased the benefits to both groups. Additionally, the college students who worked only on developing the design of the trail said that they would have liked to have been involved in the construction of the trail with the JJAEP students. It is natural then, to expand this program into a semester-long or multi-semester program that would allow both groups to be involved in the construction of their design. This would help increase the contact hours and should subsequently increase the benefits for both groups.

Although this project represents a very small sampling, it is representative of the positive benefits of both service-learning and mentoring programs. During a short time period, LA students were affected to the point that many considered it one of the most important projects of their college career. Interviews with the teachers consistently referenced the positive affect working with the college students had on the JJAEP students. This was echoed in the student journals and the student survey.

The use of the mixed paradigm to evaluate the program in a more holistic manner, as described by Shumer (2000), is a logical and viable approach. However, additional sources of information could be included to further enhance and support the findings. For example, the landscape architecture students' involvement did not include any planned reflection activities that could also be used for subsequent qualitative analysis. Including more formal reflection activities, such as journaling, would enhance their learning experience and provide an additional data source for evaluation. This notion is supported by Boyd, et al. (2006), who found that descriptive reflection provided an appropriate method of assessment for affective learning. Their research into the evaluation of writing in the affective domain could also be incorporated to provide additional insight and assessment. This would also extend the dialog of experiences and opportunities that Shumer (2000) feels is an increasingly important part of the service-learning pedagogy.

Perhaps one of the most beneficial outcomes of this project was the author's subsequent pursuit of the service-learning pedagogy and techniques for assessing learning outcomes. Since the completion of the Liberty Nature Trail project, additional, formalized service-learning projects have been conducted and evaluated with encouraging results. This includes a program involving the inclusion of a service-learning component into a short-term study abroad program.

This study of the Liberty Nature Trail project program demonstrates once again the positive values that service-learning provides students of all ages. Those positive outcomes can be multiplied by



bringing groups of different ages and backgrounds together in a supportive, mentoring environment.

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