

## The Impact of Service Learning on Middle Level Pre-Service Teachers

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*In this study, candidates at two universities in the southeastern United States engaged in service-learning projects that investigated the effects of service learning on pre-service teachers' understanding of the unique characteristics of young adolescents from diverse backgrounds and knowledge of middle level professional roles. Data were collected through a survey that included Likert scale and open-ended items. The data were used to determine the pre-service teachers' understanding of young adolescents and the professional role of middle level educators.*

*The data are organized into four themes: (a) knowledge of young adolescent development, (b) advocacy for young adolescents, (c) family and cultural diversity, and (d) dispositions and professional behaviors. Within each theme, correlations are made to Association for Middle Level Education (AMLE) standards and then specific data are provided to support the pre-service teachers' relationship to each theme. The data provide insight into university students who changed majors to middle level education and comments related to the experience being a life-changing event. Pre-service teachers reveal increased knowledge and understanding of the nature and needs of young adolescents, which is critical to becoming an effective middle school teacher. They exhibit positive dispositions such as confidence and embracing opportunities to grow professionally. They indicate increased awareness and appreciation for diverse students from various cultural and socioeconomic backgrounds.*

Young adolescents are characterized by variable and uneven rates of physical, cognitive, and social-emotional growth and development. Furthermore, this nation's school-age population is becoming increasingly diverse. We believe middle level educators need to be prepared to enter classrooms equipped to work with this age group and to work effectively with students from backgrounds different than their own. The National Council for the Accreditation of Education (NCATE, 2013) provides colleges of education with specific standards associated with exemplary middle schools. Together these two resources call for candidates to be able to identify "the characteristics of adolescent development" and to be "prepared to teach them." The Association for Middle Level Education (2010) is rewriting standards for middle level teacher preparation programs. The new standards focus on five categories: (a) the learner and learning, (b) content, (c) curriculum, (d) instruction, and (e) professional development. This study investigates the emergent insights of pre-service teachers as they engage in service-learning experiences to determine whether common themes associated with middle level teacher preparation are revealed.

Teaching young adolescents presents challenges unique to this age group. The "middle school concept" goes well beyond school organization and has "two prime foundations: the nature and needs of young adolescents and the accepted principles of learning, both undergirded by a commitment to our democratic way of life" (Lounsbury, 2009, p. 2). Since its inception in 1973, the AMLE has been committed to the educational and developmental needs of young adolescents and the preparation of middle level teachers. In the position paper, *This We Believe: Keys to Educating Young Adolescents*, AMLE advocates for creating schools that are developmentally responsive, challenging, empowering, and equitable (AMLE, 2010).

Service learning is an approach to preparing teachers to work with young adolescents effectively. Service learning can be seen in fieldwork, when candidates work with classroom teachers and in work that is designated specifically as "service learning" such as working in an after school enrichment program. Fieldwork and service learning engage students in activities that enhance the academic learning that takes place in a classroom (Ben-Perez, 1995; Carver, 1997). For the purposes of this study, both field-

work and service learning are considered “service learning” because of the nature of the experiences.

Colleges and universities began using service learning to prepare pre-service teachers in the early 1970s (Bruce, 1975). Field experiences took on a new model in the 1980s with professional development schools (Colburn, 1993). Both involved candidates working with teachers to develop their skills. The understanding that children benefitted and candidates benefitted both as service learning experiences. Rock and Levin (2002) concur that service learning experiences engage candidates in opportunities to develop their knowledge, skills, and dispositions. Bollin (2007) and Cone (2009) connect service learning to candidates’ development of purpose and insights into their own abilities. Service learning has developed into an effective pedagogy that enhances pre-service teachers’ academic learning and, at the same time, addresses specific needs in the community.

As research in support of service learning has emerged, this study seeks to add knowledge as to how candidates’ service learning experiences, along with opportunities for self-reflection, connect theory with practice. Research suggests that service-learning experiences provide candidates with opportunities to develop their own self-knowledge of coursework, diversity, and instructional strategies, and gives pre-service teachers access to strategies for building a community in the classroom (Desmond, Stahl, & Graham, 2011; Dunlap, Scoggin, Green, & Davi, 2007; Eyler & Giles, 1999; Watson, Miller, & Patty, 2011). This study discusses how colleges of education can use service learning and self-reflection to enhance the experiences of their candidates while meeting the tenets of NCATE Professional Preparation Standards.

#### Method

This service-learning project engaged candidates in experiences to enhance their understanding of “the learner and learning” and their “professional roles” as described in the AMLE Professional Preparation of Teachers (AMLE, 2012).

#### Research Question

The research question that framed this study is: How does a service learning project impact pre-service teachers’ knowledge of young adolescent development and middle level professional roles over the course of one semester?

#### Participants and School Sites

This study was a collaborative effort between two universities that both used service learning projects to enhance their middle level teacher preparation programs. The pre-service teacher participants at University A (n=137) were undergraduate secondary or middle-level education majors who were enrolled in an adolescent development class. As a course requirement, candidates completed a semester-long, 20-hour service-learning project at a diverse, Title I middle school located near the university campus. Data collection for each cohort began in spring 2009.

For the purpose of comparison, this study focused on just one group of middle level teacher candidates at University B. This group was selected because their service-learning project was similar to that of University A, and the same evaluation tool could be used. The spring 2012 pre-service teacher participants at University B (n=20) completed a 20-hour service-learning project in an after-school enrichment program at a local middle school. University B focused on having the candidates connect their service learning experiences to knowledge, skills, and dispositions as they relate to the tenets of *This We Believe* and the NCATE standards.

Interestingly, the faculty members from both universities discovered that their service-learning projects had similar origins: in both cases, middle school teachers initiated contact with the university and expressed a need for hands-on help in their classrooms. The two service-learning projects grew out of that need.

This study in both settings was built on established partnerships. The two middle school sites met the following criteria: 1) They had culturally diverse populations and 2) more than 50% of the students qualified for free or reduced lunch. Table 1 shares the demographics of the two schools in which pre-service teachers were involved in service learning. All demographics are based on state reports for 2010-2011.

**Table 1**  
*School Demographics 2010-2011*

Category	School A n=471	School B n=713
Male	51%	52%
Female	49%	48%
White	65%	52%
Black	28%	33%
Asian	<1%	1%
Hispanic	6%	6%
Other	0%	8%
Students with Disabilities	12%	16%
Limited English Proficient	4%	2%
Subsidized Meals	62%	53%

#### Procedures

Each pre-service teacher in University A was paired with a classroom teacher at a middle school. The pre-service teachers were scheduled to visit the same classroom for two, one-hour class periods per week for 10 weeks. During the 20 hours of service learning, each candidate spent time with and served as a mentor for a young adolescent. They were specifically asked to select a child from a racial, ethnic, or socioeconomic background different than their own. Activities included helping with schoolwork, communicating a personal interest in the child, and attending extracurricular events such as a sports event or school dance. At the conclusion of the project, the pre-service teachers were asked to complete a survey that included a 5-point Likert scale and open-ended questions. They were also asked write a summary and reflection of the experience, making connections to AMLE’s *This We Believe* position statement.

Candidates in University B completed their 20-hour service learning placements in an after-school program at a local middle school. The candidates served as mentors and advocates in a chosen activity from 3:00 - 5:30 p.m. one day a week for 8 weeks during the spring semester.

At the end of the semester, all of the pre-service teachers at both universities were asked to complete the same survey. The common survey was administered so that the results could be compared across institutions. The survey questions are listed in Appendix A.

Candidates in both settings used written reflections to collect and analyze their thoughts. Qualitative data were collected through journals, reflections, and surveys. Quotes that were relevant to the research question were highlighted and potential categories were identified as patterns emerged. Aspects of the experience that were common to many of the participants were segregated and coded, and data from multiple sources were compared.

## Results

Comparisons of pre-service teachers' survey data and reflections from both universities revealed common benefits of service learning. The Likert scale items on the surveys supported the candidates' open-ended responses and reflections. The results were organized into four main themes. Other results were organized into sections for students changing majors and for students expressing life-changing events.

### Themes

The themes were aligned with sections of the AMLE's new standards (3rd draft) for initial middle level teacher preparation. AMLE's new standards are used for review of undergraduate middle level teacher preparation programs beginning in 2013 (AMLE, 2012). The themes include the following:

- Theme 1: Knowledge of Young Adolescent Development
- Theme 2: Advocacy for Young Adolescents
- Theme 3: Family and Cultural Diversity
- Theme 4: Dispositions and Professional Behaviors

Each theme corresponds to specific NCATE-specialty area standards for middle level teacher preparation principles, standards, and elements. Following a brief description of each theme, survey results are presented, followed by quotes derived from the candidates' reflections of the service-learning experiences from both schools. This information provides insight into the perceptions and insights of pre-service teachers who engaged in service learning. Survey questions are listed in Table 2 and survey results are listed in Table 3.

#### Theme 1: knowledge of young adolescent development.

This theme related to candidates' observations and insights regarding the unique characteristics of young adolescents. Effective middle level teachers understand the major concepts, principles, and theories of young adolescent development including intellectual, physical, social, emotional, and moral development (AMLE, 2012).

##### AMLE standard.

- Principle A: The Learner and Learning
- Standard 1: Young Adolescent Development
- Element a. Knowledge of Young Adolescent Development

**Survey results.** Theme 1 corresponded to Question 3 on the survey: "This experience gave me new insights into adolescent development." This question elicited the strongest, most positive responses to the survey. Of the 137 candidates surveyed over a 7-semester period at University A, only one responded "Disagree" and no one responded "Strongly Disagree." Five candidates responded "Neutral." Candidates clearly indicated that they gained increased knowledge of the unique characteristics of young adolescents. Overall, 96% of the pre-service teachers at University A

surveyed responded "Agree" or "Strongly Agree" to this question on the survey. In spring 2012, 86% of the pre-service teachers at University B responded "Agree" or "Strongly Agree" to this question. The mean scores and percentages for Question 3 are listed in Table 3.

##### Quotes from pre-service teachers.

- I learned that each student is different and unique, each having a personality of their own.
- I could definitely tell who had and had not reached puberty. Many of the girls had begun to develop and looked like high school girls, while many of the boys looked as though they still belonged in elementary school!
- I learned that students are easily distracted by their own lives. Adolescents have so many things going on that it may be hard to focus on schoolwork. It is our job as a teacher to show them that school does matter; that it is a key for their future.
- I never realized how much work there is in learning the English language; when it comes to students who are in the sixth grade and are on a 1st grade reading level, reading, writing, and even speaking can prove difficult. Most importantly, I learned that the students are just kids. They don't quite understand how the world works and they are still piecing it together, whether or not they show it. Even if they are cruel to you, they still deserve your compassion, however difficult that may be.

**Theme 2: advocacy for young adolescents.** Effective middle level teachers believe that all adolescents can learn and accept responsibility to help them do so; they are enthusiastic about being positive role models, coaches, and mentors for all young adolescents; and they value and respect all young adolescents regardless of family circumstances, ethnicity, and/or economic conditions (AMLE, 2010). They understand their professional responsibilities to serve as advocates for all young adolescents and to create equitable opportunities for all young adolescents to maximize learning (AMLE, 2012).

##### AMLE standard.

- Principle D: Professional Responsibilities
- Standard 5: Middle Level Professional Roles
- Element b. Advocacy for Young Adolescents

**Survey results.** This theme related to Question 7 on the survey: "I had opportunities to work effectively with at-risk students." In their reflections, candidates in both settings indicated an increased understanding of the difference an adult advocate could make in the lives of young adolescents. However, University A's scores on the corresponding survey question were lower than expected. The Likert scale data was reviewed and used to make programmatic changes. As a result of the lower scores on Question 7, "I had opportunities to work effectively with at-risk students," University A added a mentoring component to the project and provided clarification of expectations for pre-service teacher involvement in the classroom. The mean scores (Table 3) ranging from 3.71 to 4.53 (Spring 2012) represent the programmatic improvements. The higher percentage of Agree/Strongly Agree responses (89%) on Question 7 in spring 2012 was a direct result of the mentoring assignment for the pre-service teachers and a corresponding professional development session for the classroom teachers. Overall, 71% of the pre-service teachers at University A surveyed responded "Agree" or "Strongly Agree" to this question on the survey. In spring 2012, 86% of the pre-service teachers at University B surveyed responded "Agree" or "Strongly Agree" to this question. The mean scores and percentages for Question 7 are listed in Table 3.

### *Quotes from pre-service teachers.*

- I believe that all students can learn, and sometimes all it takes to help them is to show them a little extra time and attention.
- Middle school teachers are in a unique position to identify untapped potential in their adolescent students.
- Right away, I was drawn to her cry for help. She opened up to me and told me a little about her personal life. It seemed as though she trusted me from the start because of how easily she shared her story.
- With a little understanding and showing her that I cared, one student opened right up to me. She was in the habit of not turning in her homework and by the end of my time, she was turning in her assignments and focusing better in class. I realized that this particular instance is really what teaching is about, touching lives.
- I gave a girl ten seconds of inspiration and she turned her attitude around. Each child needs direct encouragement, motivation, and attention.
- This student was a basketball player and he invited me to his games; he wanted me to 'see him play ball.' He told me that his mother does not come to his games and his grandmother cannot drive so she is not able to come either. I was able to make it to two of his games and he was awesome!
- A lot of these students were just looking for an individual to take an interest in them, guide them, and offer help in a way that would be positive and constructive. I never really thought about the awkward growth period middle school brings.
- These students are capable of learning as long as they have someone who can explain things for them more than once in different ways until they can understand. Middle school teachers are not just teachers; they are also mentors and advocates for their students.

**Theme 3: family and cultural diversity.** The third theme, Family and cultural diversity, did not correspond to a specific question on the survey, but a great deal of data was collected on this topic through pre-service teachers' reflections. This theme referred to the way effective middle level teachers understand and value their students' diverse cultural backgrounds and family structures (AMLE, 2012).

### *AMLE standard.*

- Principle D: Professional Responsibilities
- Standard 5: Middle Level Professional Roles
- Element c. Working with Family Members and Community Involvement

### *Quotes from pre-service teachers.*

- The diversity of the students in the classroom was another important thing I observed. It was pretty clear that the students came from many different socioeconomic backgrounds with diverse family structures. A lot of these students were just looking for an individual to take an interest in them, to guide them, and offer help in a way that is positive and constructive.
- On one of my visits I helped a Mexican student who did not speak good English at all. He did not know what the teacher had said while she was explaining the lesson. After about ten minutes of me re-explaining it to him, it seemed to click. This really made my day.
- I had a strong connection with one girl. At first, I chose her to be my mentor student because she was completely different from me. Her hair was a mess and her clothes seemed to be passed down. I assumed that she would be unmotivated, and thought to take it upon myself to promote that focus and drive; but boy, was I wrong! She was probably the smartest student in the class! She wanted to be challenged. She

was the motivator at her table. She not only proved my assumption wrong, she also gave me hope in our future generation.

- Kids are kids everywhere; their socioeconomic status doesn't matter. This made me realize that my job is to teach, educate, and motivate students, no matter where I am. This job is not about me; it's about the kids I will have a positive impact on.
- The environment has a major impact on classroom behavior. I believe that all children are capable of learning, regardless of origin or ethnicity.

**Theme 4: dispositions and professional behaviors.** This theme related to the way in which pre-service teachers begin to see themselves in a professional role. Effective middle level teachers demonstrate positive attitudes toward teaching young adolescents, and they model high standards of ethical behavior and professional competence (AMLE, 2012). Service learning provides candidates with the opportunity to consider whether the teaching field is right for them (Kitman, 2008). When teachers engage in service learning they not only learn how to effectively communicate with young adolescents but they gain insight into how children learn (Miller & Gonzalez, 2009).

### *AMLE standard.*

- Principle D: Professional Responsibilities
- Standard 5: Middle Level Professional Roles
- Element d. Dispositions and Professional Behaviors

**Survey results.** The fourth theme, Dispositions and professional behaviors, related to two questions on the survey. Question 4 stated: "This experience provided opportunities for professional growth" and Question 5 stated: "This experience increased my confidence in working with students." Overall, 93% of the pre-service teachers at University A responded "Agree" or "Strongly Agree" to Question 4 on the survey. In spring 2012, 100% of the pre-service teachers at University B responded "Agree" or "Strongly Agree" to this question. Overall, 88% of the pre-service teachers at University A responded "Agree" or "Strongly Agree" to Question 5 on the survey. In spring 2012, 80% of the pre-service teachers at University B responded "Agree" or "Strongly Agree" to this question.

The mean scores and percentages for Question 4 and Question 5 are listed in Table 3.

### *Quotes from pre-service teachers.*

- I really feel prepared now, and each time I work with the students in the service work I get more confident that I can do almost anything. I also find myself really enjoying the experience, and I had an "aha" moment two weeks ago. I taught the lesson, the kids did it, and they succeeded, and had fun. I felt a sense that I really can teach, and it was really neat. I feel that I really can succeed, and I want to keep going and learning more each week. I am excited to work with the students, and I know that I can teach them.
- I believe that without working directly in the field and on service work that I would not properly comprehend the aspects that are required to teach. We must better understand the children through service work and better understand teaching through fieldwork.
- I realized very quickly that textbooks do not mean much when you have to find a way to have a rowdy group of ten middle school kids to listen to you on a Friday afternoon. The real world experience is definitely the most valuable aspect of my field and service work. I now look at my education classes as basic training for the ultimate battle of intelligence that will take place in my classroom.

**Table 2**  
*Survey Questions*

Theme	Number	Question
1	3	This experience gave me new insights into adolescent development.
2	7	I had opportunities to work effectively with at-risk students.
3	4	This experience provided opportunities for professional growth.
4	5	This experience increased my confidence in working with students.

**Table 3**  
*Survey data for Questions 3, 7, 4, 5 (Means and percentages of Agree or Strongly Agree responses)*

University A											
Semester	Participants	Question 3	Question 7	Question 4	Question 5						
	n	X	%	X	%	X	%	X	%	X	%
Sp 2009	24	4.83	96	4.00	67	4.71	100	4.29	88		
Fa 2009	19	4.84	100	4.26	84	4.79	100	4.58	89		
Sp 2010	24	4.58	96	3.79	67	4.42	88	4.46	88		
Fa 2010	18	4.33	83	3.67	67	4.33	89	4.06	78		
Sp 2011	19	4.68	95	3.95	68	4.63	95	4.47	95		
Fa 2011	14	4.62	100	3.62	50	4.15	79	4.23	79		
Sp 2012	19	4.68	100	4.53	89	4.68	100	4.63	95		
Overall	137	4.66	96	3.99	71	4.55	93	4.40	88		
University B											
Semester	Participants	Question 3	Question 7	Question 4	Question 5						
	n	X	%	X	%	X	%	X	%	X	%
Sp 2012	20	4.30	86	4.00	86	4.70	100	4.40	88		

**Unexpected Results**

Some of the collected data did not fit neatly into the four theme categories. However, the data was interesting and is included here.

**Changing major.** As a result of this experience, several pre-service teachers changed their majors to middle level education.

**Quotes from pre-service teachers.**

- At the beginning of this semester I was planning to teach high school chemistry; however, I recently changed my major to middle level math and science because of the things that I have seen during my service learning.
- I enjoyed the middle school grade level more than I really thought that I would. After observing at this middle school my whole train of thought has changed.
  - I gained an entirely new perspective on middle school and middle school students. In fact, after completing my hours, I

decided to add on a middle-level certification to my major, which I had never considered before.

- I had never considered teaching in middle school but because of this placement, I learned that I am passionate about this age group. I am changing my major to middle level education!

**Life-changing event.** Finally, candidates reflected on the overall experience as a “life changing” event. The ultimate goal of service learning is that participants walk away with a sense of civic responsibility (Bolin, 2007; Cone, 2009). A major focus of fieldwork and service learning is that pre-service teachers realize they have the potential to make a difference (Dunlap et al., 2007; Eyler & Giles, 1999).

**Quotes from pre-service teachers.**

- This has been a life changing experience for me. I will definitely take the things I have learned and apply them to my job as an educator in the future.

- I learned that I cannot always be there for my students and I cannot always provide them with the things that they need. But I can offer them support and let them know that I am there to make a part of their day easier. However, the only way I can do that is to be there. Attendance, understanding your students, and understanding who you are important elements to becoming a teacher.
- I had lost my vision, my passion, and my desire to become a teacher at one point this semester.... [This project] has encouraged me to keep striving to do my best so that I can impact the lives of adolescents through teaching.
- I realized why I want to become a teacher. I want to be able to help change children's lives, and help them become something greater than they were before they met me. I wouldn't have been able to come to this conclusion if it wasn't for this assignment.

### Discussion

Candidates revealed increased knowledge and understanding of the nature and needs of young adolescents, which is critical to becoming an effective middle school teacher. They exhibited positive dispositions such as confidence and embracing opportunities to grow professionally. They indicated increased awareness and appreciation for diverse students from various cultural and socioeconomic backgrounds. Several pre-service teachers stated that this service learning experience was life-changing and served as a catalyst to making a commitment to work with this age group.

It became clear that these service-learning projects had the potential to engage pre-service teachers in self-reflection and challenge stereotyped assumptions about students from diverse backgrounds. Serving as mentors and developing personal relationships with these middle school students helped facilitate "unlearning the misinformation and stereotypes" (Milner, 2007, p. 388). This is consistent with Coffey (2010) who describes a pre-service teachers' field experience as "an opportunity to disrupt their own biases and to challenge the deficit paradigm" (p. 336).

Social cognitive theory contributes to our understanding of candidates' abilities to learn through reflection of experiences they encounter. As pre-service teachers interact with young adolescents from diverse backgrounds, colleges of education can assess candidates' knowledge of young adolescence and teachers' professionalism in schools as revealed by candidates' descriptions of their own dispositions and professional growth.

In both settings, teachers in the middle schools worked closely with university professors. The initial focus of the activities were designed by both and focused on the needs of the local middle schools. Service-learning placements can provide candidates with models of exemplary teachers and provide pre-service teachers with the opportunity to develop their knowledge, skills, and dispositions (Ruppert, 2012). That pre-service teachers were able to develop their depth of understanding and insights into their own knowledge of young adolescents suggests that service learning provides a win-win situation for pre-service teachers and other stakeholders involved in the project.

This study contributes to the professional practice of middle level teacher preparation. It adds to the understanding of the process by which pre-service teachers, especially those with limited experience with diverse populations, learn to recognize, respect, and respond to the diversity found in young adolescents.

The success of this project validates the practice of implementing a field experience in the form of service learning for middle-level education majors. A related study could examine how pre-service teachers gain an understanding of the implications for teaching and learning as they learn to connect instruction to the experiences of a diverse community. In addition, assessing pre-service teachers' knowledge, beliefs, and assumptions about young adolescents from diverse backgrounds at the beginning of the experience, and then again at the end of the experience would provide a deeper understanding of the impact of service experiences over the course of their preparation.

In addition to the value this experience had for candidates, the researchers also benefitted from this experience. Faculty members across institutions were able to share the impact of these experiences with one another as a tool for enhancing the courses they are teaching. Faculty members who gather ideas and share experiences can create valuable service learning experiences for their candidates. It is our hope to include more collaborative experiences among our candidates as well as among ourselves and other colleagues.

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**Appendix A: Service-learning Project Evaluation Surveys**

**Pre-Service Teachers' Evaluation Form**

**Please rate the following:**

	<i>Strongly Disagree → Strongly Agree</i>				
1. My service-learning placement helped middle school students.	1	2	3	4	5
2. My service-learning placement helped middle school teachers.	1	2	3	4	5
3. This experience gave me new insights into adolescent development.	1	2	3	4	5
4. This experience provided opportunities for professional growth.	1	2	3	4	5
5. This experience increased my confidence in working with students.	1	2	3	4	5
6. The classroom teacher was a positive role model for instruction.	1	2	3	4	5
7. My knowledge and interest in middle level education increased.	1	2	3	4	5
8. I had opportunities to work effectively with at-risk students.	1	2	3	4	5
9. This experience will positively affect my teaching.	1	2	3	4	5
10. I would recommend this service-learning placement to others.	1	2	3	4	5

**Please respond to the following:**

- 11. What aspects of this service-learning placement were most beneficial? (Please give examples)
- 12. What aspects of this service-learning placement created areas of concern? (Please give examples)
- 13. How would you change the experience to increase its effectiveness? (Please be specific)

COMMENTS: