

ABSTRACT

Title of Document: SERVICE-LEARNING IN TEACHER
EDUCATION: WEAVING A TAPESTRY OF
RELATIONSHIPS

Catherine M. Castellan, Doctor of Philosophy,
2006

Directed By: Associate Professor, Linda Valli, Department of
Curriculum and Instruction

The purpose of this interpretive study was to gain an understanding of the sense freshmen elementary education majors made of service-learning in their teacher education courses. Data were gathered from six majors during their Introduction to Education course in the fall and Learning Theory course in the spring of their freshman year. Three majors participated in a regular model of service-learning while another three participated in a cascading model. Data were inductively analyzed from codes organized into categories and then synthesized into themes. This study was conducted at a private college in a Mid-Atlantic city where many of the students came from middle and upper middle class backgrounds. Service-learning projects involved a local urban elementary/middle school.

Findings indicated that majors made sense of their service-learning projects by recognizing that service-learning offered them the opportunity to establish relationships. A collaborative relationship was established between the majors and individuals in the school which resulted in majors learning how to collaborate and the benefits of collaboration. A reciprocal relationship was established between the majors and the

teachers and students in the elementary school where the majors' service activities met school needs. A cognitive relationship was established as majors connected their course content to their service-learning experiences and learned the content. A relationship was established between the majors and others in an urban setting resulting in opportunities for majors to experience, address and adapt to issues related to diversity. Service-learning allowed majors to synthesize teaching principles from their experiences in an urban setting.

There were some differences in perspectives between the cascading and regular majors. Cascading majors' experiences allowed them to develop more specific and in-depth insights into the world of elementary education than their regular model counterparts as they planned and carried out service-learning projects *with* the elementary school students. The cascading majors also experienced reinforced pedagogy when they taught the elementary students and then watched the elementary students teach others the same material. The effectiveness of the cascading majors' pedagogical approach was assessed by the application of that knowledge when elementary students introduced and taught the material to others.

SERVICE-LEARNING IN TEACHER EDUCATION:
WEAVING A TAPESTRY OF RELATIONSHIPS

By

Catherine M. Castellan

Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
2006

Advisory Committee:
Professor Linda Valli, Chair
Professor Jacqueline Cossentino
Professor James Greenberg
Professor Joseph L. McCaleb
Professor Karen M. O'Brien

© Copyright by
Catherine M. Castellan
2006

Dedication

To My Dad
James J. Kerley, Jr.

To My Mom
Mary Agnes Bier Kerley

To My Teacher, Advisor, Mentor, and Friend
Dr. Beatrice Sarlos

Acknowledgments

Just as it takes a village to raise a child, it took me about as many people and about as long to get my Ph.D. I cannot call this document complete until I have named and thanked those who assisted me on my Ph.D. journey. I will address them in somewhat chronological order.

Thanks to my dad who introduced me to philosophy, Aristotle, and inductive thinking. He not only taught me, but also taught me how to teach. He shared with me his life-long quest to understand how people learn. It is his work that informs and inspires my research and teaching. From time to time I imagine him in conversations with those philosophers he tried so hard to understand through self-study.

Thanks to my mom who lived a life of service to others. Her compassion, caring and selfless acts of kindness were an effective example of true giving without asking for anything in return. She made such a difference in the lives of others that I know she now walks with the angels.

Thanks to my husband Jim. Without his support this document would not exist. I am so grateful for his undying belief in me (even when I doubted myself), his willingness to take on more than his share, his patience with my technological deficiencies, and his never wavering love and support.

Thanks to my children, Mike and Bridget, who, at times, tolerated a somewhat distracted mom. Their love and support were motivating as they became inspiring examples of persistence and determination when they worked to overcome the challenges that life threw at them. Thanks also to their spouses, Teresa and Len.

Thanks to my extended family and friends whose love, prayers, encouragement and support helped me stay the course as they tolerated my forgetfulness and absence.

Thanks to Dr. Beatrice Sarlos who saw in me potential that I did not know existed and encouraged me to consider doctoral studies. I will remain eternally grateful.

Thanks to the faculty and staff of the Education Department at Loyola College under the wise leadership of Dr. Victor Delclos. Their support, words of encouragement, gentle reminders to stay focused, offers of help, prayers and good wishes were very much appreciated and more than I could have hoped for. I knew I had to finish and succeed so that I could continue to work with such a talented and caring group of individuals.

Nearly last, but certainly not least, I want to thank my committee: Dr. Linda Valli, Dr. Jacqueline Cossentino, Dr. James Greenberg, Dr. Joseph McCaleb, and Dr. Karen O'Brien. Their time and expertise were very much appreciated. A special thanks to Dr. Linda Valli, the chair and my advisor, for her wise counsel and patience. She set a high standard and then encouraged and guided me to meet that standard.

Finally, thanks to my students, past, present, future, and especially those who, as freshmen, volunteered to participate in this study. They work so hard and are very dedicated to learning how to be the best possible teachers. They inspire me to stay committed to research and improved instruction so that I may be worthy to be called their "teacher".

TABLE OF CONTENTS

| | |
|--|------|
| Dedication | ii |
| Acknowledgments | iii |
| List of Tables | viii |
| List of Figures | ix |
| Chapter 1: Introduction | 1 |
| Overview | 1 |
| Purpose | 4 |
| Theoretical Perspective | 9 |
| Research Questions | 10 |
| Research Design | 11 |
| Limitations | 14 |
| Assumptions | 15 |
| Significance | 15 |
| Chapter 2: Review of the Literature | 18 |
| Theoretical Framework | 19 |
| Continuity | 20 |
| Education of the Young in a Society | 21 |
| Growth | 22 |
| Thinking | 24 |
| The Acquisition of Knowledge | 26 |
| The Social Condition | 31 |
| Overview of Service-Learning | 34 |
| Service-Learning Content | 34 |
| Early days | 35 |
| Definitions and elements of service-learning | 36 |
| Service-learning components | 39 |
| Types and models of service-learning projects | 40 |
| Review of Studies on Service-Learning | 42 |
| Academic outcomes in general education studies | 44 |
| Academic outcomes in teacher education studies | 50 |
| Professional development | 58 |
| Personal development | 61 |
| Social outcomes | 63 |
| Discussion | 70 |
| Conclusion | 72 |
| Chapter 3: Methodology | 78 |
| Overview | 79 |
| Research Questions | 80 |
| Setting | 80 |
| Participants | 81 |
| Description of Courses | 86 |
| ED 100: Introduction to Education Fall 2002 | 86 |
| Service-Learning Description | 90 |
| ED 300 Learning Theory Spring 2003 | 90 |

| | |
|--|-----|
| Service-Learning Description | 92 |
| Data Sources..... | 93 |
| Interviews..... | 95 |
| Weekly Reflection Journal..... | 96 |
| Service-Learning Field Forms..... | 97 |
| Questionnaires..... | 98 |
| Mid-Terms..... | 99 |
| Final Reflections | 99 |
| Data Analysis | 100 |
| Chapter 4: Analysis..... | 107 |
| Collaboration..... | 107 |
| Collaboration with Peers | 107 |
| Regular model..... | 108 |
| Cascading model..... | 110 |
| Synthesis: Collaboration with Peers..... | 112 |
| Regular model..... | 112 |
| Cascading model..... | 114 |
| Summary of regular & cascading models..... | 117 |
| Collaboration with Community..... | 119 |
| Regular model..... | 119 |
| Cascading model..... | 120 |
| Synthesis: Collaboration with Community..... | 123 |
| Regular model..... | 123 |
| Cascading model..... | 125 |
| Summary of regular and cascading models..... | 127 |
| Collaboration Theme..... | 129 |
| Reciprocity..... | 131 |
| Regular Model..... | 131 |
| Cascading Model..... | 134 |
| Synthesis: Reciprocity..... | 135 |
| Regular model..... | 135 |
| Cascading model..... | 138 |
| Meeting a Need..... | 140 |
| Regular model: Mary..... | 140 |
| Cascading model: Nina..... | 141 |
| Synthesis: Meeting A Need..... | 142 |
| Regular model: Mary..... | 142 |
| Cascading model: Nina..... | 143 |
| Reciprocity Theme..... | 144 |
| Connections..... | 146 |
| Abstract Connections | 146 |
| Regular model..... | 146 |
| Cascading model..... | 147 |
| Synthesis: Abstract Connections..... | 148 |
| Content-Specific Connections..... | 150 |
| Regular model..... | 150 |

| | |
|--|-----|
| Cascading model..... | 153 |
| Synthesis: Content-Specific Connections..... | 154 |
| Reflection Connections..... | 156 |
| Regular model..... | 156 |
| Cascading model..... | 157 |
| Synthesis: Reflection Connections..... | 158 |
| Elementary Connections..... | 159 |
| Synthesis: Elementary Connections..... | 160 |
| Elementary Students' Connections..... | 162 |
| Synthesis: Elementary Students' Connections..... | 166 |
| Connection Expansion and Exceptions..... | 169 |
| Synthesis: Connection Expansion and Exceptions..... | 172 |
| Connections Theme..... | 173 |
| Diversity..... | 179 |
| Urban Schools..... | 179 |
| Urban environment..... | 180 |
| The minority issue..... | 181 |
| Urban students and relationships..... | 184 |
| Synthesis: Urban Schools..... | 185 |
| Urban environment..... | 185 |
| Minority issues..... | 186 |
| Urban students and relationships..... | 187 |
| Summary: Urban Schools..... | 189 |
| Diversity and Teaching..... | 189 |
| Synthesis: Diversity and Teaching..... | 192 |
| Diversity Theme..... | 197 |
| Conclusion..... | 198 |
| Chapter 5: Summary and Conclusions..... | 199 |
| Collaboration..... | 200 |
| Reciprocity..... | 201 |
| Connections..... | 202 |
| Diversity..... | 204 |
| Insight..... | 206 |
| Making Sense..... | 209 |
| Findings Within the Greater Picture..... | 211 |
| Collaboration..... | 211 |
| Reciprocity..... | 213 |
| Connections..... | 214 |
| Diversity..... | 217 |
| Regular and Cascading Models..... | 222 |
| Future Studies..... | 227 |
| Conclusion..... | 229 |
| Appendix A. Interview Protocol: Students I & II..... | 232 |
| Appendix B. Interview Schedule I & II..... | 233 |
| Appendix C. Service-Learning "Field" Form..... | 234 |
| Appendix D. Weekly Reflection Journal..... | 235 |

| | |
|---|-----|
| Appendix E; Questionnaires | 236 |
| Appendix F. Overview of “Introduction to Education” Course..... | 246 |
| Appendix G. Overview of “Learning Theory” Course | 247 |
| Bibliography..... | 248 |

List of Tables

| | |
|--|-----|
| Table 1. Academic Outcomes | 57 |
| Table 2. Professional Outcomes..... | 61 |
| Table 3. Personal Outcomes..... | 63 |
| Table 4. Social Outcomes..... | 70 |
| Table 5. Description of Participants..... | 86 |
| Table 6. Questions and Related Data Sources..... | 95 |
| Table 7. Themes and Literature..... | 221 |

List of Figures

| | |
|--|-----|
| Figure 1. Theoretical Framework..... | 33 |
| Figure 2. Development of Collaboration Theme. | 130 |
| Figure 3. Development of Reciprocity Theme..... | 145 |
| Figure 4. Development of Connection Theme..... | 178 |
| Figure 5. Development of Diversity Theme..... | 197 |
| Figure 6. Collaboration Patch of Tapestry | 208 |
| Figure 7. Reciprocity Patch of Tapestry..... | 208 |
| Figure 8. Connection Patch of Tapestry..... | 208 |
| Figure 9. Diversity Patch of Tapestry | 209 |

Chapter 1: Introduction

Overview

For more than a decade, service-learning has steadily been gaining recognition as an integral component of the educational process in both schools and colleges. The integration of service and learning in the curriculum in a way that each is enriched by the other is becoming the norm in many classrooms across the nation. For many educators today, the purpose of education is considered to be broader than just preparing scholars, technicians, and job-seekers. In addition to these goals, education should also, “facilitate the psychological and social development of learners, enhance appreciation for all individuals and cultures in our diverse world, and prepare students to assume the role of active citizens in our democracy, working for justice for all” (Anderson, Swick, & Yff, 2001, p. xvii). Anderson et al. (2001) propose that service-learning provides educators with a pedagogy powerful enough to achieve all of these goals.

Concurring with this perspective is John Glenn, the astronaut and former senator who served as chair for the National Commission on Service-Learning. When addressing the 57th annual conference of the Association for Supervision and Curriculum Development (ASCD) in March 2002 he explained that too many students experience a disconnect between the curriculum and their own lives. He claimed that with service-learning many students discover a connection between what the teacher is saying and the real world:

Service learning is not just community service, it's not just volunteerism - it's something far beyond that. Service learning puts academics into action because it puts learning into an authentic context. It engages young people in addressing real problems in their communities, not just fictitious problems in a textbook. They respond to that (Willis, 2002, p. 3).

Anderson, Swick, & Yff (2001) explain that service-learning is an approach to teaching and learning in which learning and service are integrated so that both occur and each is enriched by the other. Academic content is intentionally linked to service activities that address a real community need while students are involved in active participation and reflection. They state that according to a recent U.S. Department of Education study, about one-third of all public schools offer service-learning in their curricula. In order to increase this number, many proponents of service-learning have begun to focus their efforts on service-learning in teacher education programs. The Embedding Service Learning into Teacher Education Project (ESTE) at Indiana higher education institutions is just one example of this focus on service-learning in teacher education. Their newsletter describing the ESTE initiative suggests that service-learning is an old idea with a new impetus that derives from two premises: first, the best form of education involves real experience under the guidance of an effective teacher, and second, teachers want their students to learn how to be smart and they want their students to learn how to be good citizens (Morgan, 1998). They claim that the idea behind the ESTE project is a simple one. "If service-learning is to be used effectively and widely, it must be an integral part of the education that all future teachers receive, not an idea that they come across after their undergraduate education is complete" (Morgan, 1998, p. 2).

Lilly (2001) seems to agree as he states that teacher education programs need to consciously and systematically guide future teachers to connect their future practice with

a goal to improve the human condition. Service-learning is an effective way to establish this connection. According to Lilly (2001), in order to prepare future teachers to implement service-learning in their own classrooms, teacher education programs should incorporate service-learning within the context of their education courses. Many teacher education programs across the country are already promoting service-learning as an integral component of their teacher education program. According to a National Service-Learning in Teacher Education Partnership survey in 1998, just under one-fifth of teacher education programs in the nation offer service-learning experiences for their preservice teachers (Anderson et al., 2001).

This chapter presents an introduction to a study of service-learning in teacher education. It begins with an overview, rationale and purpose for this study. These are followed by a brief discussion of the theoretical framework based on Dewey's (1944) ideas of experiential education. Finally, the research questions, the research design, limitations, assumptions, and significance of the study are presented. According to Root and Swick (2001), service-learning can stimulate new visions of what teacher education can be. It has the potential to transform teacher preparation programs through "the expanded and enriched structure that service-learning offers for the education of teachers, and by engaging teacher educators and 'community' as partners in crafting experiences that will lead to improved teacher preparation and stronger schools and communities" (p. 151). Root and Swick continue with the idea that for service-learning to be respected, accepted, and implemented as an effective component of teacher education programs, more research in this area is needed. Erickson and Anderson (1997) advocate the same as they state the pressing need for research in a number of areas associated with service-

learning in teacher education: valuable experiences that help incorporate service-learning in programs; reasons for using service-learning; rewards and challenges of participating in service-learning; the value of peer and administrative support; and characteristics of teachers who are most and least likely to engage in service-learning projects. Howard, Gelmon, and Giles (2000), in their article, “From Yesterday to Tomorrow: Strategic Directions for Service-Learning Research,” are more specific as they call for future research to address topics including service-learning and the freshman experience, and the relationship between K-12 and higher education, which are the focus of this study.

Purpose

At the conclusion of a lesson or course, a teacher tends to look back and assess the effectiveness of his or her teaching. Certain assumptions evolve from this reflective experience that can agree with or do not necessarily coincide with students’ perspectives of their participation in the same experience. It was with this thought in mind that I set out to do this study. Prior to this study I had been involved in service-learning in my teacher education courses for a few years and from my perspective it seemed to be an effective pedagogy. I got involved in service-learning when I accepted the position of instructor at Rowan College to teach “Introduction to Education” and “Learning Theory” courses. I was told that a service-learning component would be part of the requirements for the “Introduction to Education” course. After an explanation of service-learning I was willing to give it a try because it seemed consistent with my own idea of service and my philosophy of teaching.

When contemplating the service side of service-learning, I realize that I learned about service from my mother. She was always helping and serving others, even if she

had to sacrifice something in the process. She intended to leave the world a better place than she found it. I've always tried to follow her example with the added dimension of trying to build community in the process. Service-learning seemed compatible with these ideas where students do a service project to meet a community need. In a community, it is important for members to take care of each other.

To see the learning side of service-learning, I offer my perspective on teaching and learning. To me, teaching is always and ultimately about the student, each, but every student. You look into her eyes, you see the need and you work to meet that need. All decisions, all choices should be focused on that need. The quest to meet that need begins with a desire, and comes to fruition in experiences and studies that may spiral up to graduate school. At any point in time, to remember why you are doing what you are doing, you can slide back down the spiral, come face to face with the student, and remember your purpose, to meet her needs.

That is where I go when I am trying to remember why I study, why I research, why, at this point in my life, when many of my friends are talking about their afternoon naps, I am working on a paper, or teaching a class. It's all in the eyes. I've seen the eyes reflect a "gestalt" shift from not-knowing to knowing, and then knowing they know. Facilitating this shift resembles a drug effect. Once you experience it, you keep going back. You continue to try and meet the needs and assist an "aha" moment for another child and so on. I have never had enough. I've just taken on the larger eyes of college students.

I arrived in this place because learning has been a life-long struggle for me. I can often remember sitting in classes and having no clue what was going on. Through many

years of schooling I have come to recognize that moving from the not-known to the known can be quite a challenging and often frustrating endeavor on my part. Through much of my research and studying I have come to realize that my intake, analysis, association, patterning, synthesis, and output cycle does not always work as effectively and/or quickly as others who sit in the desks around me. When I was younger, I just thought I was dumb.

I have tried to explain this phenomenon to fellow graduate students and colleagues. Not many of them understand. I have found that many of my classmates pursuing masters and doctoral degrees in education had mainly positive school experiences prior to entering college. I originally surmised this through comments made during class discussions, but found supporting evidence when I would broach the subject either in personal conversations or class discussions. Often times these discussions would come around to a child's perspective or reflecting back on elementary school experiences. Many discussion mates could not put themselves in the place of a struggling young student. I would try, often in vain, to explain my rather confusing and frustrating experiences in elementary school.

Finally, in one doctoral class I came up with an idea. I handed out a bottle of children's bubbles and asked everyone to blow some bubbles. After everyone had blown a few strands of bubbles from the bubble wand, I suggested that they observe each bubble, in its beauty and uniqueness, as it traveled through the air. Did they see the different hues of color as the bubbles seemed to float away? Did they see the large, small, teeny, double, triple, and conglomerate shapes of bubbles? "Try and catch a bubble" I would encourage. As they reached out to capture the fragile floaters, they

would pop, and they were gone. All that was left in their hand was the soapy remnants of once beautiful orbs. So we put away the bubbles.

Next, I handed out a handful of blocks to each person. Everyone had a selection of different shapes and sizes. I invited them to form a structure, to build something, anything that they wanted. When everyone was finished, I asked them to hold up their structures for all to see. Some structures were orderly or simple while others resembled a pile of bricks and still others had protrusions extending out in all directions. We noted how each structure was unique and they seemed to appreciate each others' creations. Then we put away the blocks.

Up on the overhead screen I projected this poem, my poem:

The Disconnect

A child sits in a classroom
and as the teacher speaks
Her words are as beautiful bubbles
of different sizes and shapes and configurations.
The child reaches out to catch the bubbles
but they pop and they are gone.
Only the bubble slime remains.

Another child sits in a classroom
and as the teacher speaks
her words are as building blocks
of different sizes and shapes and colors.
The child reaches out to catch the blocks.
They are gathered in and a structure is built.

Both children are sitting in the same classroom.
The first child looks around
and sees exciting structures
of different colors and shapes
being constructed by other children.
She is confused and frustrated
trying as hard as she can,
she cannot construct.
She only has bubble slime.

From the “Oh’s”, the look in their eyes and the discussion that followed, it would seem that maybe a few persons experienced a glimpse of that bubble perceiving perspective, the frustration of recognizing that words from the teacher are important and significant, but it’s a struggle to make sense of them and/or difficult to remember them.

I approach the world through what I would consider to be an inductive perspective. I need to touch, see, or hear as many physical objects as necessary to establish patterns, realize connections, and make sense of the world around me. Moving through the concrete world of experience is quite often necessary before entering the symbolic, transformative world of abstraction. I need to attach meaning to words, numbers, and symbols before I can remember them. This is not a choice. It is how my mind works.

I believe that everyone can learn if learning is defined as understanding and making sense of the world. This may not hold true if learning is defined as a process that involves mainly memorization and regurgitation. Certain methods of instruction are based on the assumption that learning will lead to understanding and making sense of the world. Other methods of instruction seem to require learning that involves memorization and regurgitation of information without attached meaning.

It is with this perspective in mind that I took a look at service-learning. The active, real-world experience of a service-learning project, from my perspective, seemed to fit the understanding and “making sense of the world” definition of learning. But, did my students share that definition with me, or did their perspective of service-learning experiences take on a different definition of learning, or maybe no learning at all? These questions helped provide the rationale for this study. I knew what I thought, but I needed

to know what my students thought. The purpose of this interpretive study was to gain an understanding of what sense freshmen elementary education majors made of their service-learning experiences in their teacher education courses.

Theoretical Perspective

My theoretical perspective draws from a framework developed around John Dewey's (1940) ideas on experience in education, Aristotle's view of reasoning, Piaget's (1970) and Bransford, Brown, & Cocking's (2000) description of constructivism, and Shulman's (1999) scholarship of teaching. The acquisition of knowledge is a theme that is common to these four views and they all contribute to my perspective of how we come to know.

Dewey (1944) spoke of the role of experience in education. The acquisition of knowledge occurs when both the body and the mind work together for meaningful learning. Aristotle also explained that the body and mind work together utilizing inductive and deductive reasoning processes to acquire knowledge (Ozman & Craver, 1990). Contemporary theories of constructivism are consistent with these perspectives. Constructivism describes the reasoning that involves the assimilation and accommodation of new information into existing schema of prior knowledge to construct new knowledge (Bransford et al., 2000; Brooks & Brooks, 1993; Piaget, 1970; Shulman, 1999). More on this theoretical foundation is discussed in Chapter Two.

Research Questions

The following research questions were addressed by studying the experiences of freshman elementary education majors in “Introduction to Education” and “Learning Theory” courses. The first question with its two subsequent questions focused on the classroom activities and assignments for the college course while the second question focused on the service-learning experience.

What sense do freshmen elementary education majors make of their service-learning experience in their teacher education courses? What sense do they make of service-learning as it is integrated with the “Introduction to Education” course content in the Fall semester? What sense do they make of service-learning as it is integrated with the “Learning Theory” course content in the Spring semester?

What sense do freshman elementary education majors make of their service-learning experiences in the projects they conducted in the elementary school?

When asking about sense making rather than simply learning, I focused on the constructivist perspective (Brooks & Brooks, 1993) that promotes understanding and meaningful learning as making sense of content. This can be contrasted with learning that does not necessarily require understanding.

Division of fractions is a good example to illustrate this point. In elementary school, when given the problem $\frac{1}{2} \div \frac{1}{4}$, I learned to flip the second fraction and multiply to get the answer, 2. I knew that flipping and multiplying would get the correct answer, but it seemed a bit odd that I would multiply to solve a division problem. It also seemed odd that dividing two fractions would result in a whole number. My father approached this problem differently. He asked me where I had seen and used the division sign (\div)

before. I offered $6 \div 3$. He got me to admit that in order to see this problem I would have to ask the question, “how many groups of 3 are there in 6?” He then asked me if this same question could be asked when dividing fractions. How many of the second fractions were there in the first fraction, or how many $\frac{1}{4}$ were there in $\frac{1}{2}$? Looking at a chocolate bar, how many $\frac{1}{4}$ pieces were there in $\frac{1}{2}$ of the chocolate bar?, two. There were two $\frac{1}{4}$'s in $\frac{1}{2}$ of a chocolate bar. This made sense. I could see it, smell it, taste it, and feel it. My senses helped me make sense of this information. This was a comfortable fit. I used my prior knowledge of division of whole numbers to help understand the division of fractions. I learned, but it also made sense. All learning doesn't always make sense, but all sense making does require meaningful learning. When I asked what sense majors made of their service-learning experiences, I did not want to hear or read only the words from the text or those discussed in class. I was looking for the greater context of their sensory world with the hope that this would provide not only what they learned, but what made sense to them.

Research Design

In addition to investigating the sense freshmen elementary education majors make of their service-learning experiences, this study also delineates two different models of service-learning: regular and cascading. Data are analyzed with these two models in mind, so that distinctions and patterns are recognized and discussed. This study is not meant to compare these two models, rather it will bring to light any issues that emerge in relation to distinct findings of one or both models.

The “regular” model of service-learning involves the elementary education majors in a service-learning project that will meet a need that has been identified by the

community (in this case the elementary school administration or individual classroom teachers). Typical examples include: college students assisting elementary students during classroom instruction; assisting classroom teacher in administrative tasks; assisting in the teaching of a lesson, etc. While it may seem that a regular model of service-learning is similar to a field experience, there are some significant differences. Participating in service-learning requires collaboration between the elementary school and the college program where a community (or school) need is identified and a plan is devised to meet that need. There is also a reciprocal relationship established between the elementary school and the college program where each can gain from the participation of the other. Field experience usually has a focus on the knowledge that is gained by the college students involved in an experience.

The second, “cascading” model involves the elementary education majors in the planning and implementation of a service-learning project *with* the elementary students. This model moves beyond the regular model of meeting a need identified by the elementary school. The college majors’ service-learning project involves going into the school to work with a group of elementary students. These two groups work together to identify a community (or school) need and then continue the collaboration as both groups work together to design a plan to meet the identified need. Instead of being the sole recipients of the college majors’ service as in the regular model, in the cascading model the elementary students become part of the process for providing the service and they also have their educational needs met in the process. Typical examples might include: renovating and/or cleaning up the playground area; doing research on a topic relevant to the elementary classroom curriculum and then involving the elementary students in

preparing and implementing a lesson on that topic to a lower level class; planning a party or letter writing project for senior citizens, etc.

This study took place at Rowan College (pseudonym), a private, Catholic, liberal arts College located in a Mid-Atlantic city. Within the college mission is a focus on service with a goal to produce men and women for others. At the time of this study, there were about 3,400 undergraduate students in the entire college with about 180 in the elementary education program. A large majority of Rowan College elementary education majors came from middle and upper middle class families with a large concentration coming from the North Eastern states, less from Middle Atlantic states, and a few from various other states.

All students in the “Introduction to Education” courses completed a survey which asked questions related to service-learning, teaching and learning. Freshmen students in the first and second sections of this course who agreed to take “Learning Theory” the following spring semester and who believed that they wanted to be an elementary school, teacher were eligible for participation in this study. Participants were chosen from their questionnaire responses. Three students were selected from “Introduction to Education” section one (the cascading model) and three students were selected from “Introduction to Education” section two (the regular model) to be participants in this study. A more detailed explanation of the participant selection process is included in chapter three on Methodology. For clarity in future discussions, the college elementary education majors are referred to as majors and the elementary school students are referred to as students.

Since this study attempted to gain an understanding of what sense freshmen elementary education majors made of their service-learning experiences, I considered it

an interpretive study with a goal to develop grounded theory. A further explanation of this methodology follows in chapter three.

Limitations

A few issues were considered to be limitations of this study. This study was conducted at a Catholic, liberal arts college where the majors came from middle and upper middle class families and attended private and/or Catholic schools prior to entering college. Their experiences of a service-learning project in an inner-city elementary school might have been different from other college students who come from more religiously and economically diverse backgrounds.

I believe it is important to acknowledge that I was the researcher for this study and also the instructor of the courses under study. While this was a great benefit to me and my understanding of my own teaching, it also provided me with a greater framework of experience to draw from when analyzing and making sense of the data. The lens through which I was looking may be different from that used by a researcher who has not experienced service-learning as an instructor. In order to try and somewhat mitigate these particular circumstances, I put the data down and did not analyze it for about one year after I had finished gathering it for this study. By that time I could better focus on the data itself, and not be as distracted by the memory of other experiences that might have accompanied the data analysis if it had been directly analyzed after the completion of the courses under study.

At the time of this study, Rowan College had four courses in the teacher education program that had service-learning components. This study looked at the first two courses encountered by majors that required a service-learning experience. While the

meanings constructed by participants in this study is presented in Chapter four, these meanings may not have lasted beyond the boundaries of this study, and may have changed since participants encountered at least two more courses with a service-learning component.

Assumptions

There were a few assumptions established for the purpose of this research study. I assumed that the elementary education majors accurately described their experiences, perceptions, and beliefs. I also assumed that those who chose to participate in this study believed that they wanted to get a degree in Elementary Education. They might approach their service-learning experiences with a bit of a different perspective than those who take the “Introduction to Education” course as a means for ascertaining whether or not they have chosen the correct major. This was done in an attempt to rule out an extra factor that might have confounded the analysis of the data. It seemed to make sense to focus on participants who were confident in their choice of a major.

Significance

This study will add to the literature on service-learning in teacher education. With teacher education programs becoming more demanding and comprehensive to meet the call for more competent and effective teachers, information and insight on different components incorporated in the plan to prepare such teachers is useful for program design. As alluded to earlier, professors including service-learning in their courses believe that it is an integral component of teacher education programs, otherwise they would not expend the time and energy required of this commitment. But what is the

students' perspective on service-learning? Is it a bonus or a detriment in preparing them to be teachers? This study can add to the discussion on service-learning in a teacher education program already over-crowded with courses and requirements.

Additionally, this study adds to the literature on different models of service-learning in teacher education. For clarification, I first heard the term "cascading" in relation to service-learning from the individual who explained service-learning to me at Rowan College. She was not sure of her source for the term. While I could not find the term "cascading" in any of the service-learning literature, the concept, not the term, was present in the different service-learning projects explained in the literature. Each service-learning research study used either a regular or cascading model of service-learning, but there was no distinguishing between the two models, or naming of the different models within the text of the studies. This study is offering a naming and description of the two models and students' meaning-making in relation to their participation in their respective service-learning experiences.

Gaining an understanding of how students made sense of different models of service-learning may help college professors who may wish to choose a specific model of service-learning to better meet the criteria for their course. Studying how participants make sense of their service-learning experiences may lead to a better understanding of which model might be more appropriate to achieve course goals. The type of experience may be impacted by the service-learning model that is used. As Dewey (1944) explained, it is experience that connects the particulars that result in the formation of generalizations. Service-learning will provide the sensory experience of particulars that will assist students in forming the generalizations required as course content. Depending

on the goals of the course, one model may better suit the enhancement of the connection that is established between the prior knowledge and new information to form new knowledge.

Chapter 2: Review of the Literature

As mentioned in the previous chapter, I struggled to learn as a child. My father, an engineer by profession, but a philosopher and educator at heart, recognized my struggle (and that of my brothers and sisters) and set out on a quest to find out how people learn. After years of self study he came upon Aristotle and his ideas on inductive and deductive reasoning. He not only taught me using what he called an inductive approach to learning, but he eventually shared this theoretical perspective with me when I was studying to be an elementary school teacher. I spent years incorporating inductive and deductive reasoning into my practice as I gained experience teaching second through ninth grades. While recognizing the value of this practice, I realized that there must be more to the big picture of how people learn. After twelve years in graduate school, I have come to realize that there are no simple answers to that question, but I have developed an appropriate theoretical framework upon which to hang my teaching practice. It is this theoretical framework, described below, that provided the structure within which this study was conducted.

Through the discussion presented on the following pages, I explain the philosophical and psychological theories and ideas of Dewey (1944), Piaget (1970), Bransford, et al. (1990), Shulman (1991), and, Aristotle (Ozman & Craver, 1990) that have contributed to my own theoretical framework on how people learn. I then define and explain service-learning and service-learning in teacher education and why I embraced this practice as being seemingly consistent with this theoretical framework. I review studies on service-learning to further develop the foundation upon which this study on

elementary education majors' perspectives on their service-learning experiences is situated.

Theoretical Framework

The origin of service-learning varies according to perspective: religious and cultural traditions (Erickson & Anderson, 1997); urban uprisings, the War on Poverty, and humanistic educators of the 1960s and 1970s (Stanton, Giles, & Cruz, 1999); community service organizations (YMCA, 4-H, Scouting, Peace Corps, Volunteers in Service to America-VISTA), and the Civil Rights Movement of the 1960s (Jacoby & Associates, 1996). While the origin of service-learning is in dispute, there is agreement across the literature on the theoretical basis for service-learning: a grounding in experiential education with a focus on John Dewey and his theory of experiential learning (Anderson et al., 2001; Erickson & Anderson, 1997; Jacoby & Associates, 1996; Stanton et al., 1999).

Dewey's (1944) ideas on experience in education are quite expansive so only those concepts that are most relevant to service-learning and that provide the framework for supporting service-learning are discussed. Dewey's emphasis on continuity - in experience and consequently in life is presented. This is followed by his view on education of youth in society, the role that growth and thinking play in education, the acquisition of knowledge, and social conditions. This is then supplemented by discussions of constructivism and critical theory as they are connected to Dewey's ideas and also to service-learning.

Continuity

The idea of continuity of experience seems to be woven throughout Dewey's discussion of the role of experience in education. Continuity, for Dewey, means that "every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after" (1997, p. 35). Throughout his discussion of democracy and education", Dewey proposes that continuity is the key to education. He begins his book "Democracy and Education" by situating his ideas about teaching and learning in a contemplation of life in general, not just education in the classroom. On page two he wrote, "Life is a self-renewing process through action upon the environment...Continuity of life means continual re-adaptation of the environment to the needs of living organisms" (Dewey, 1944, p. 2). He further develops his ideas on education throughout the book until he comes back to the significance of continuity. On almost the last page he offers, "the function of sensory stimulation and thought is relative to reorganizing experience in applying the old to the new, thereby maintaining the continuity or consistency of life" (1944, p. 343). This continuity in the educational process can be assisted by service-learning experiences. The service-learning experience can actually become the catalyst for growth from the old to the new by bridging the gap between prior knowledge and new knowledge through reflection upon those experiences that assist in formulating the new from the old. These and more of Dewey's ideas are further discussed in reference to the role of experience in education and significance to service-learning.

Education of the Young in a Society

Dewey (1944) explains that for humankind to go on, society must educate the young because they are not capable of learning on their own. Social life demands teaching and learning in order to persist and the mere act of living together educates. Dewey would consider this indirect or informal education where the subject matter of life is experience. This is in contrast to formal education which deals with the subject matter of the schools. He claims that such school material can easily become “remote and dead - abstract and bookish” (p. 8) if the learner is not sharing in the actual pursuit of coming to know, whether directly through experiences or vicariously through play. He continues with the idea that education has to keep a proper balance between the formal and the informal or the material of formal instruction will be the subject matter of the schools with no connection to real life. Referring to social conditions, interestingly enough, Dewey offers the perspective that the accumulated knowledge of “low grade societies” is put into practice and meaning is attached to it within daily activities. In a more advanced culture, accumulated knowledge is most often stored in symbols, without the attachment to familiar acts and objects of experience.

The development of attitudes of the young for the continuity of society cannot be a direct conveyance of beliefs, emotions and knowledge from the teacher to the learner according to Dewey (1944). These factors can only come through interaction with the environment, especially, the social environment consisting of all the activities of the group that are bound up with the activities of any one member of the group. A deeper formation of disposition comes as youth participate in activities of the groups to which they belong. Dewey (1944) explains that youth, by nature, are not conformists to the life-

customs of their groups so they need to be directed or guided which is not the same thing as physical compulsion.

In summary, Dewey addressed the education of the young by suggesting that the subject matter of schools not be too far removed from the subject matter of life - which is experience. He also offered that interaction with the environment facilitates the educative process, not direct conveyance of ideas from the teacher to the learner. Both of these ideas support service-learning because it is in service to the community that students are gaining experiences that will help them connect the subject matter of the schools to the service experiences in which they participate. While some classroom interactions may involve direct conveyance from the teacher to the student, the associated service experience outside of the classroom may serve to clarify or augment that which was conveyed by the teacher within the classroom. Finally, he suggested that the young need guidance to adapt to the life-customs of society. Participation in a service-learning experience under the guidance of the teacher will not only enhance communication skills through interaction with others, but also the potential exists for students to possibly develop a sense of caring for others (ASLER, 1993). According to Dewey (1944), the process of learning from experience can bring about growth.

Growth

Dewey (1944) describes growth as “the cumulative movement of action toward a later result” (p. 41). He explains that the power to grow comes from two things: a need for others; and the power to learn from experience. Experience, from his description, as an active process takes up time and its

...later period completes its earlier portion; it brings to light connections involved, but hitherto unperceived. The later outcome thus reveals the meaning of the earlier, while the experience as a whole establishes a bent or disposition toward things possessing this meaning. Every such continuous experience or activity is educative, and all education resides in having such experiences (Dewey, 1944, p. 78).

He suggests that the purpose of education in the schools is to establish a pattern for continual learning by organizing the powers that will support growth. Dewey reinforces the idea of learning as growth when he presents his “progressive” view of the results of education in contrast to the more “conservative” or traditional perspective. He explains that from a progressive view, the result of the educative process is the capacity for further growth. Within the growth process, experiences should not be traditionally viewed as a presentation to the learner, rather they are interactions of actions with the environment which “progressively” (p. 79) modifies both the actions and the environment. Through this process, progressive communities attempt to shape the experiences of the student so that instead of reproducing the current status quo, better habits are formed resulting in the future adult society becoming an improvement over the current one. Dewey claims this is in opposition to those results expected by those from a traditional or conservative perspective: getting ready for future duty or job; an unfolding of what was implicit by making it explicit; the narrow training of functions of the mind for specialized skills; and recapitulation of the past. He claims that those professing a progressive view work to utilize the past as a resource to develop the future through continuous reconstruction of experience while the conservatives work to accommodate the future to the past.

Dewey (1944) is explicit in his definition of experience and implies that education should focus on the future through continuous reconstruction of experiences which create the pathway to further growth. This again supports service-learning as an educative

experience because the focus of the service-learning course does not remain in the classroom, but opens itself up to the growth experiences encountered by those doing the service outside of the classroom. According to Dewey (1944), growth is required to fill the gap between experience and learning and this requires thinking.

Thinking

Dewey (1944) goes into detail when he describes thinking. He begins with the idea that the nature of experience has an active and a passive element. The active is the doing of something and the passive is the undergoing or the consequences that result from the action. The active element of the experience involves change, but that change is not significant unless it is consciously connected to the consequences. According to Dewey (1944), “when the change made by action is reflected back to a change made in us, the mere flux is loaded with significance. We learn something” (p. 139). In this explanation, Dewey is qualifying an experience. He explains that if we do things and something happens to us as a result, but there is no connection in retrospect or outlook, then that activity barely deserves to be called an experience. We have learned nothing.

On the other hand Dewey offers:

To ‘learn from experience’ is to make a backward and forward connection between what we do to things and what we enjoy or suffer from things in consequence. Under such conditions, doing becomes a trying; an experiment with the world to find out what it is like; the undergoing becomes instruction - discovery of the connection of things (p. 140).

It is this connection or relationship between the doing and consequences of experience that make up the genuinely intellectual matter - and hence the educative matter of learning. “Accurate and deliberate instituting of connections between what is done and its consequences” (p. 151) is defined by Dewey as thinking. Thinking not only notes

these connections, but also takes in the details of the connections involved in the experience. Because of this, thinking results in knowledge.

Dewey (1944) explains that the processes - the doing, the consequences, and the discovery or reflection upon the connections between the two - involve both the body and the mind. Our senses - within the body - he considers avenues of knowledge when they are used to do something with a purpose. The discernment between the doing and the consequences requires reflection - or thinking - which operates in the mind. Therefore it is wrong to create a dualism by trying to separate the body from the mind. "A separation of the active doing phase and the passive undergoing phase destroys the vital meaning of an experience" (p. 151) because there can be no connection if the two phases are separated. If there is no connection, there is no thinking, and hence, no meaning because meaning comes with the knowledge gained from thinking. Dewey writes emphatically:

The failure arises in supposing that relationships can become perceptible without *experience* - without that conjoint trying and undergoing of which we have spoken. It is assumed that "mind" can grasp them if it will only give attention, and that this attention may be given at will irrespective of the situation, hence the deluge of half-observations, of verbal ideas, and unassimilated "knowledge" which afflicts the world. An ounce of experience is better than a ton of theory simply because it is only in experience that any theory has vital and verifiable significance" (Dewey, 1944, p. 144).

The emphasis here on thinking or reflecting upon the connection between the doing and the consequences invites a correlation to service-learning experiences. Reflection is a crucial component of a service-learning experience. Reflection acts as the means for connecting service-learning experiences outside of the classroom with academic course material within the classroom (Astin, Vogelgesang, Ikeda, & Yee, 2000).

Dewey's views of thinking or reflection as the connection between the doing and the consequences of an experience lay the foundation for his perspective on the acquisition of knowledge.

The Acquisition of Knowledge

Discussing theories of knowledge, Dewey (1944) presented two main ideas: dualism and continuity. He describes dualism as a separation of the mind and body so that they are viewed as separate entities. He explains that dualism is classified into two sub categories which grew out of different schools of thought from the past (prior to 1944): one associated with an empirical, sensationalism perspective to which he assigns a focus on the body, and second, a higher rationalist perspective to which he assigns a focus on the mind. The sensationalism perspective is associated with external functions, doing, and practice focused on concrete particulars for learning while the rationalist perspective is associated with internal functions, knowing, and theory focused on abstract generalizations for learning.

In contrast to this dualist perspective, Dewey (1944) introduced his theory of knowledge based on continuity which he called "pragmatic" (p. 344) as he explained that the separation of mind and body hinders the acquisition of real knowledge. With real knowledge, the body and mind work together just as the particular aspects and abstract generalizations work together. Dewey suggests that when considering a problem, the first step is to break the problem into well-defined particular details. We come to know these particular facts and qualities through our sense organs.

Since our task is to discover their connections and to recombine them, *for us at the time* they are partial. They are to be given meaning; hence, just as they stand, they lack it. Anything which is *to be* known, whose meaning has still to be made

out, offers itself as particular. But what is already known, if it has been worked over with a view to making it applicable to intellectually mastering new particulars, is general in function. Its function of introducing connections into what is otherwise unconnected constitutes its generality. Any fact is general if we use it to give meaning to the elements of a new experience. "Reason" is just the ability to bring the subject matter of prior experience to bear to perceive the significance of the subject matter of a new experience (Dewey, 1944, p. 344).

The acquisition of knowledge, for Dewey (1944) requires an experience that involves the use of the body where the senses take in the details of the particular facts. The mind then reflects on the particular facts and finds connections among them resulting in the identification of a generalization. That generalization can then be used as a particular element in a new experience. This reasoning process moves from the particulars to a generalization and then that generalization can be used as a new particular to group with other particulars to form a new generalization. This process continues as particulars and generalizations work together to form new knowledge.

In comparison, Aristotle (a few centuries before Dewey) discussing ideas similar to Dewey's about the inaccuracies of dualism, described coming to know as the balanced process of body and mind operating together. Bodies receive data through sense perception (Bechtel, 1983). Minds then construct the relation of objects to their universal (general) form. The mind organizes raw sense data by its reasoning. Aristotle described this process of moving from sensed particulars to abstract generals as inductive reasoning (Ozman & Craver, 1990). He seemed to recognize that induction involves passing from the particulars of sense experience to the universal (general) principles involved in sense experience (Runes, 1983). Once generalizations have been established through the inductive process, they are then used as the premises to deductively reason from the general to the particular (Ozman & Craver, 1990). Along the same line, Conway (1959),

a scholar on Thomistic philosophy and its relationship to Aristotelian thought and education, addressed the idea of body and mind working together in the interaction of inductive and deductive reasoning to attain truth:

Since it is often customary, in logic books and elsewhere, to speak of the “inductive” and the “deductive” processes as though they were two mutually independent methods of arriving at the truth, it will perhaps not be amiss to underline the fact that in Aristotle and St. Thomas, as in thinking itself, the two processes are not separated and parallel, but complementary: the prerequisites of deduction are premises arrived at by induction (Conway, 1959, p. 337).

Previously mentioned was a reference to how Dewey “seemed” to be in agreement with Aristotle and Conway (1959) on the acquisition of knowledge. The word “seemed” was used because of the agreement on *how* knowledge is acquired: the process of moving from the particular to the general and back again, or more formally, using inductive and deductive reasoning. What is in conflict is *what* is acquired by engaging in this reasoning process. Dewey (1944) refers to the acquisition of knowledge, but does not refer to this knowledge as “truth” as both Aristotle and Conway (1959) do. As a matter to consider, Dewey (1944) and his pragmatist view of education recognized the individual interacting with the environment through experiences as essential to gaining knowledge, but he stopped short of calling that knowledge truth. With pragmatism, there is no absolute truth. With Aristotle, Conway (1959), and others, reasoning is used as a method to ascertain truth. A conflict exists, not in the process involved in coming to know, but in what the product of that process is perceived to be.

Also into this mix comes a more contemporary perspective of how we come to know, constructivism. Constructivism was discussed by Piaget (1970) as he presented the idea of children actively constructing knowledge by assimilating or accommodating information into their cognitive structures or schema in the process of adapting to their

environment. Assimilation involves incorporating new information into an already existing schema or cognitive structure. Accommodation is a modification of the cognitive structure because the new information would not fit in with the prior, existing cognitive structure or schema (Ormrod, 1995). Most adherents to a constructivist perspective would agree that students construct their own knowledge through an active process of accessing prior knowledge and connecting that to new information so that it becomes new knowledge. “Each of us makes sense of our world by synthesizing new experiences into what we have previously come to understand” (Brooks & Brooks, 1993, p. 4).

There seems to be confusion in the field among those who claim an association with a constructivist perspective. Bransford, et al. (2000) in “How People Learn” from the National Research Council explain that there is a common misconception regarding constructivist theory. They say that people confuse the theory of knowing (constructivism) with a theory of pedagogy and believe that a teacher should never tell students anything directly, but rather allow them to construct knowledge for themselves. Bransford et al. (2000) argue that “constructivists assume that all knowledge is constructed from previous knowledge, irrespective of how one is taught” (p.11). Since people actively construct new knowledge and understanding from what they already know and believe, it is the teacher’s job to pay attention to the “incomplete understandings, the false beliefs, and the naive renditions of concepts that learners bring with them to a given subject” (p.10). They suggest that teachers need to build on these understandings and beliefs in order to assist students to a more mature understanding.

Considering the teaching/learning process from a teacher educator perspective, Shulman (1999) presents what he calls the scholarship of teaching. When trying to answer, “What is learning?” he explains that about thirty five years ago the conception of learning was fairly simple. “the ‘inside’ of the learner was treated as more or less empty: learning was understood as a process of getting knowledge that was outside the learner in books, theories, the mind of the teacher-to move inside” (p. 2). Testing for learning was done by looking inside the heads of students to make sure what was on the outside is now inside the learner. He goes on to explain that now we see learning as a dual process.

Initially, the inside beliefs and understandings must come out, and only then can something outside get in. It is not that prior knowledge must be expelled to make room for its successors. Instead, these two processes-the inside-out and the outside-in movements of knowledge-alternate almost endlessly (Shulman, 1999, p. 2).

The learning process does not begin with instruction by the teacher, but rather a coming out of the inside knowledge – or prior knowledge. Learners construct meaning out of their prior understanding so new learning must connect with what learners already know. Shulman (1999) admits that this is an oversimplification, but states that we must take seriously what the students have already learned. Once the inside is out, then knowledge can be enriched and elaborated by social interactions with other people. “Learners construct their sense of the world by applying their old understandings to new experiences and ideas. That new learning is enriched enormously by the ways in which people wrestle with such ideas on the ‘outside’ before they bring those ideas back inside and make them their own” (Shulman, 1999, p. 3). He suggests that this process is best for enhancing understanding and clarifying misconceptions because the learner is supported

in an “active, collaborative, reflective reexamination of ideas in a social context” (Shulman, 1999, p. 3).

In summary, Dewey (1944), Aristotle, Piaget (1970), Bransford et al. (2000), and Shulman (1999) describe similar processes involved in the acquisition of knowledge. Dewey and Aristotle addressed the interaction of particulars and generalizations working together in the reasoning process while Piaget, Shulman and Bransford et al. describe reasoning as the assimilation and accommodation of new information into existing schema of prior knowledge to construct new knowledge. Implicitly or explicitly, service-learning draws from these different theories and ideas as students move out into the real world to participate in experiences that help them connect their concrete experiences with academic content in order to facilitate their construction of knowledge.

Having discussed theories of knowledge and knowledge acquisition, the discussion will return to Dewey. In what he calls an “analogous way”, Dewey draws a connection between theories of knowledge and the social condition.

The Social Condition.

Interestingly enough, in his discussion on dualism, Dewey (1944) relates these opposing perspectives to the social condition. The sensationalist perspective (dealing with particulars or bare facts) he associates with the working class who live everyday lives as ordinary individuals lacking a specialized intellectual pursuit. Their work involves interaction with the immediate environment. The rationalist perspective (dealing with generalizations or bare relations) is associated with the learned class who were concerned with higher intellectual pursuits as they were focused on attaining rational knowledge for its own sake. Dewey claims that, because of the duality of the

situation, there is a physical and intellectual separation of the two groups. Each group is cut-off from the other so that each lives a one-sided experience. They are one-sided because “barriers to intercourse prevent the experience of one from being enriched and supplemented by that of the others who are differently situated” (Dewey, 1944, p. 344). This perspective almost seems a precursor to that of critical theorists who ask us to challenge our long-held assumptions and reflect critically on our own experiences and those of others and to work for change (Wink, 2000). Dewey is questioning the division of society into the ordinary and the elite. He suggests a move in a democratic direction. “Since democracy stands in principle for free interchange, for social continuity, it must develop a theory of knowledge which sees in knowledge the method by which one experience is made available in giving direction and meaning to another” (Dewey, 1944, p. 344-345). These ideas support service-learning by allowing students to step outside of their own culture, through service-learning experiences, as they attempt to understand the world from different perspectives. Critical reflection on their service-learning experiences should challenge students to ask important questions and seek an understanding of the world outside the classroom so that they will be able to incorporate avenues of change in their pedagogy. Having discussed this theoretical framework that essentially represents my perspective on teaching and learning, I will now discuss how the practice of service-learning is situated within this framework. A synthesis of Dewey’s ideas can be found in Figure 1.

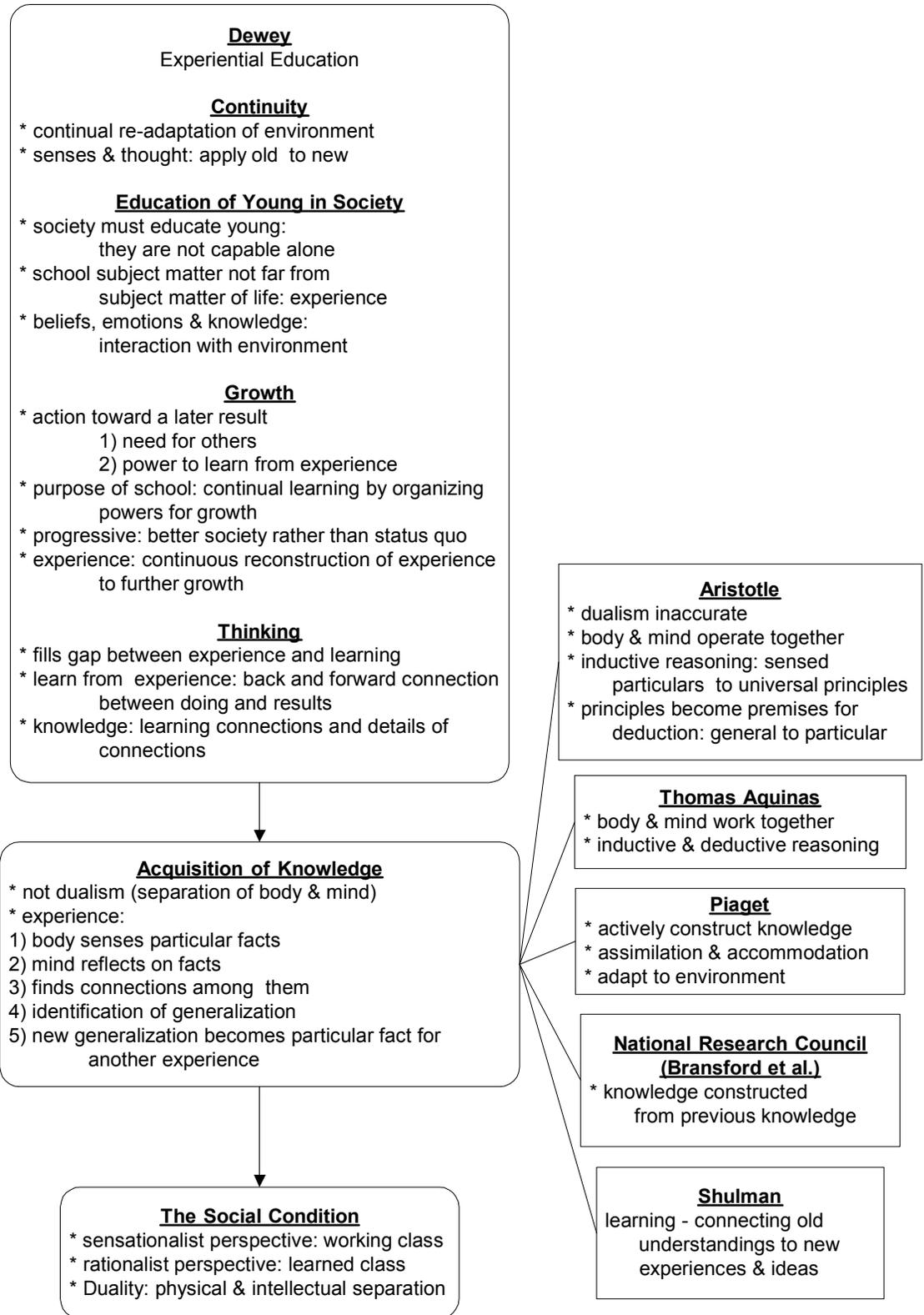


Figure 1. Theoretical Framework.

Overview of Service-Learning

I was a bit skeptical when, after I accepted a full time faculty position at Rowan College, I was told that a service-learning project would be a component of my *Introduction to Education* course in the fall of 1999. I was not sure what service-learning really was, but I decided to keep an open mind. I discovered that, according to definitions, descriptions, and research studies, service-learning is designed to provide the real-life, sensory experiences necessary for learning as defined by Aristotle, Dewey (1944), Piaget (1970), and Shulman (1999). Ideally, students hear or read about course content and then observe or experience that course content in the real world at their service-learning sites. A more in-depth look at service-learning and its related literature is provided in the following sections.

Service-Learning Content

The use of service-learning has increased dramatically in both K-12 schools and teacher education programs throughout the decade of the 1990s (Anderson et al., 2001; Howard et al., 2000). Service-learning is now advocated by students, faculty, states, presidents of colleges and university, members of the Senate, Congress and even the president of the United States (Jacoby, 1996; Stanton et al., 1999; Willis, 2002). This literature review begins with a brief history of service-learning and then continues with definitions, elements, components, types, models and principles of service-learning in order to set the foundation for a discussion of service-learning research studies.

Early days.

Stanton et al. (1999) explain that the increase in service-learning in the schools and colleges is rather remarkable considering that until about the mid 1980s, service-learning was advocated and practiced by a relatively small group of “pioneers” in the early days of service-learning. In the 1960s, a small, loosely connected group of practitioners “began exploring how community action and academic learning could be integrated” (Stanton et al., 1999, p. xv). Many in this group were community activists and educators who believed that “action in communities and structured learning could be combined to provide stronger service and leadership in communities and deeper, more relevant education for students” (Stanton et al., 1999, p. 1). Some of these original pioneers actually lost their jobs as a result of advocating and practicing service-learning because an activist approach was seen as too far removed from the norm of classroom lectures and acquisition of facts.

The earliest definition of service-learning seems to be in a 1969 publication of the Southern Regional Education Board: “the accomplishment of tasks that meet genuine human needs in combination with conscious educational growth” (Stanton et al, 1999, p. 2). Good service-learning was not viewed as a charity, but rather a reciprocal relationship between the server and the served. Focusing on social justice issues, it was enabling and empowering as it supported those people who wished to address their own needs *with* the server as opposed to the server doing something *for* them. These ideas were aligned with the three principles of service-learning that were identified by Robert Sigmon in 1979:

1. Those being served control the service(s) provided.

2. Those being served become better able to serve and be served by their own actions.
3. Those who serve are also learners and have significant control over what is expected to be learned (Stanton et al., 1999, p. 3).

The early pioneers, according to Stanton et al. (1999), had differing views as to the purposes of education and its relationship to the social order. They each were affiliated with one of three positions: education, service, and democracy. The first position claimed the relationship between education and service and addressed the question, How does education serve society? Service-learning was viewed as the avenue through which education could serve social needs. The second position claimed the relationship between service and democracy and addressed the question, What is the relationship between service and social change? Social justice issues were at the heart of this position. The third position claimed the relationship between democracy and education and asked the question, What is the purpose of education in a democracy? For this group, democratic participation identified the role of education as fostering a more engaged, effective citizenry. Stanton explained that rather than being a discrete type of program, service-learning appeared to be an approach to experiential learning. The early practitioners of service-learning were pedagogically situated within the field of experiential education. They wanted to connect students' experiences to reflection and analysis in the curriculum.

Definitions and elements of service-learning.

Recognizing that service-learning had its roots in diverse perspectives helps to explain the difficult and complex task of trying to narrow down service-learning to a

single definition. Anderson (1999) suggests that service-learning is a philosophy of education and an instructional method. Jacoby and Associates (1996) expand that idea further by offering that service-learning is a program, a philosophy and a pedagogy. As a program, service-learning focuses on the accomplishment of a task that combines community needs with intentional learning goals incorporating reflection and analysis. Service-learning can be considered a philosophy of human growth and purpose, a vision of community, a social focus and a way of knowing. As Jacoby et al. (1996) explain, it is the element of reciprocity - “the social and educational exchange between learners” (p. 9). that identifies it as a philosophy. Service-learning as a pedagogy focuses on experience as a basis for learning. Giving credit to Dewey (1940) and Piaget (1970), Jacoby et al. (1996) also credit Kolb with a perspective on experiential learning as they refer to his experiential learning cycle. This cycle is a consistently renewing four step process: concrete experience, reflection on the experience, synthesis and abstract generalization, and active experimentation where concepts are tested in new situations.

In concurrence with the above discussion, Shumer (1997) explains that with service-learning there is a continuum of program formats, a complexity of purposes and a variety of definitions. Eyler and Giles (1999) note that Jane Kendall, (former executive director of the National Society for Experiential Education (NSEE), identified 147 definitions of service-learning in the literature in 1990. With the increase in practice and research since, there could even be a greater number. In an attempt to define service-learning for this study I have chosen what seems to be an all-inclusive definition offered by the Alliance for Service Learning in Education Reform (ASLER):

A method through which young people learn and develop through active participation in thoughtfully organized service experiences that–

- meet actual community needs and that are coordinated in collaboration with the school and community;
- are integrated into each young person’s academic curriculum;
- provide structured time for a young person to think, talk, and write about what he/she did and saw during the actual service activity;
- provide young people with opportunities to use newly acquired academic skills and knowledge in real life situations in their own communities;
- enhance what is taught in the school by extending student learning beyond the classroom; and
- help to foster the development of a sense of caring for others (ASLER, 1993, p. 1).

This definition is also appropriate for those students who may be beyond the “young people” title mentioned here. Simply stated, service-learning, as a teaching method, combines meaningful service, academic instruction and critical reflective thinking to enhance student learning and civic responsibility (Peace Corps, 1998).

Kielsmeier (2000) explains that while there may be different versions of a definition for service-learning, there is relative consensus on standards for quality. A set of standards were established by ASLER and then a version of these standards was updated by 13 service-learning organizations producing the “Essential Elements of Service Learning.” They address both content and performance and are usually stated in terms of what students will know and be able to do as a result of their participation in a service-learning experience (Kielsmeier, 2000). The eleven Essential Elements are synthesized here for quick review.

In effective service-learning: there are clear educational goals that provide for students to construct their own knowledge; tasks are challenging; assessment should enhance learning & evaluate the meeting of standards; service tasks have clear goals, meet genuine needs, and have significant consequences; there are formative and summative evaluations of effort and outcome; student voice includes selecting, designing,

implementing, and evaluating; diversity is valued; communication and interaction are promoted and partnerships and collaboration are encouraged; students are prepared – to understand tasks and roles, with skills and information; with safety precautions; and with knowledge about and sensitivity to the people with whom they will be working; students reflect before, during, and after service using multiple methods that encourage critical thinking; and multiple methods are used to acknowledge, celebrate, and further validate students' service work (National Service-Learning Cooperative, 1998 as presented in Kielsmeier, 2000, p. 663).

Service-learning components.

There are a number of formats for service-learning experiences that have been described in a variety of ways throughout the literature. Toole and Toole (1999) within the Compass Institute and National Youth Leadership Council offer six components of service-learning in a clear and succinct model of what they call “The Service Learning Cycle.” The cycle of a new service-learning experience begins with the collaboration of students and community in identifying a genuine community need. The partners then plan, prepare and implement a meaningful service experience that involves observation and problem solving. At the culmination of the experience an evaluation should yield new insights and understanding. Finally, there is a celebration involving all the participants. Toole and Toole (1999) indicate that there should be a preservice, a post-service, and on-going reflection throughout the experience. The basic components of the cycle involve: collaboration, planning, service, evaluation, celebration, and reflection throughout. Jacoby et al. (1996) point out similar components (they called elements) in the Campus Outreach Opportunity League (COOL) “Critical Elements of Thoughtful

Community Service”. They explain that these five elements have assisted hundreds of institutions across the country in developing community service programs. These five elements include community voice which corresponds with collaboration previously discussed, orientation and training which refers to the previously described planning stage, meaningful action that refers to the service, and reflection and evaluation which are the same elements listed previously. The COOL elements do not include celebration.

Types and models of service-learning projects.

There are three types of service-learning projects: direct, indirect, and advocacy. With a direct service learning project, students perform a service directly with those being served. Examples include: tutoring younger students, coaching physically disabled youth, participating in habitat for humanity, spending time with elderly, cleaning up a local stream or open space, helping in a soup kitchen, and planting a community garden. An indirect service-learning project allows students to perform a service where they do not have first hand contact with the recipients. Examples of indirect projects might be: Organize a Read-a-Thon in school or neighborhood; offer clerical help to Special Olympics; hold book drives for groups in need; increase local environmental awareness and support by writing an article about a stream clean-up; and contact local bakeries and restaurants to set up a program for them to donate day old food to homeless shelters. An advocacy project requires students to take civic action by educating the public about an issue in hopes of producing a change. Examples of advocacy projects include: sending a letter or email to a congressperson or senator; organizing a letter writing campaign; and organizing an awareness raising assembly. Having examined types and examples of service-learning, principles are presented.

There are also two service-learning models. A regular model involves students participating in a service-learning project that meets a community need. Examples include: a class studies ecology and works to clean a local stream and a third grade class studies poetry and writes a book of poetry that they take to share with the first graders to help them learn about poetry. In a cascading model of service-learning one group of students (usually older) is involved in a service-learning project *with* the second group (usually younger). The older group's project is to work with the younger group on a service-learning project that they plan, implement and evaluate together to meet a community need. Examples might include: renovating and/or cleaning up the playground area where both groups work together to study, plan and clean up the playground; the older group does research on a topic relevant to the elementary classroom curriculum and then involving the elementary students in preparing and implementing a lesson on that topic to a lower level class; planning a party or letter writing project for senior citizens, etc. A direct service-learning project can utilize either a regular or cascading model while indirect and advocacy projects can not utilize a cascading model. Participants in this study were involved in both regular and cascading models of direct service-learning projects.

Principles of service-learning.

Since this study was focused on service-learning in teacher education, The Principles of Good Practice for Service-Learning in Preservice Teacher Education are presented. Anderson et al. (2001) explain that these principles are neither absolutes nor research based, but are important considerations identified through the collected wisdom of those involved in service-learning in teacher education. They are ideals to strive for.

Anderson et al. (2001) offers that integrating even one will strengthen service-learning activities and be beneficial.

Principles of Good Practice for Service-Learning In Preservice Teacher Education

1. Preservice teachers should prepare to use service-learning as a pedagogy by participating in service-learning experiences as well as in-class study of principles of good service-learning practice.
2. Teacher education faculty involved with service-learning should have a clear understanding of service-learning theory and principles of good practice and model these principles in their use of service-learning as a teaching method.
3. Teacher education courses that include service-learning should be grounded in theories and practices of teaching and learning that are congruent with service-learning.
4. The design, implementation and evaluation of service-learning projects should reflect all stakeholders' needs and interests, including those of preservice teachers, P-12 students, and other community members.
5. Reciprocity and mutual respect should characterize the collaboration among teacher education programs, P-12 schools, and the community.
6. Preservice teachers should participate in multiple and varied service-learning experiences that involve working with diverse community members.
7. Preservice teachers should participate in a variety of frequent and structured reflection activities and prepare to facilitate reflection with their future students.
8. Preservice teachers should learn how to use formative and summative assessment to enhance student learning and measure service-learning outcomes.
9. Teacher educators should align service-learning outcomes with program goals and state and national standards for teacher certification and program accreditation.
10. The teacher education program, institution, and the community should support service-learning by providing the resources and structural elements necessary for continued success (Anderson et al., 2001, p. 73).

Review of Studies on Service-Learning

Much of the research on service-learning falls under one or more of the following four outcome categories: academic, professional, personal or social. Each of the four categories was developed by reviewing the literature related to that category. Many studies overlap categories so their contribution to each category is presented within the discussion of each category respectively. To situate the service-learning in teacher education literature within the context of all service-learning literature, both service-

learning in teacher education and service-learning in general education literature (what I am identifying as all service-learning literature not related to teacher education) are discussed. For the sake of clarity, the former are referred to as TE studies and the latter as GE studies.

Many of the service-learning studies addressed academic outcomes, which makes sense because one of the reasons for engaging in service-learning, as presented previously, is the supposed enhanced learning experienced by the participants.

When participating in service-learning, students should connect course content with their service-learning experiences. Many studies identified and addressed this content-experience connection in a variety of ways. When considering GE studies, this *content—experience* connection was named as *academic material—service* (Vogelgesang & Astin, 2000); subject matter-every day life (Tannenbaum & Barrett, 2005); and Asian history-service in a cross-cultural setting (Frank & Lee, 2005). Astin et al. (2000) eluded to this connection when they claimed that “both the qualitative and quantitative findings of their study indicate the service-learning courses should be specifically designed to assist students in making connections between the service experience and the academic material” (p. 4). Reflection is named as the link between the content and the service (Astin et al., 2000; Eyler & Giles, 2002; Swick, 2001, Vogelgesang & Astin, 2000).

The TE studies also addressed the *content—experience* connection, but the majority named the connection as a *theory—practice* connection (Abourezk & Patterson, 2003; Brown, 2005; Malone, Jones, & Stallings, 2002; McKenna, 2000; Wade, 1995). For the TE studies, reflection was addressed by Cox-Petersen, Spencer and Crawford, (2005); and Rockquemore and Schaffer, (2000). For both the GE and TE studies, the

content—experience connection was named and reflection was identified as the link.

These studies are examined in more depth to ascertain the academic outcomes identified by each study.

Academic outcomes in general education studies.

Vogelgesang and Astin (2000) conducted a quantitative study of 22,000 students attending 177 universities and colleges across this country. This was a longitudinal comparison of service-learning (course related service), “generic” community service, and non-service participants. Data were collected from surveys at the beginning and end of students’ college experiences (four years). They found that service connected to academic courses (service-learning) enhanced the development of academic outcomes they defined as grade point average, writing skills, and critical thinking skills. Astin et al. (2000) conducted a case study on three campuses and found that “service-learning courses should be specifically designed to assist students in making connections between the service experience and the academic material” (p. 3). They also found that the frequency with which the professor connected content to experience and experience to content directly impacted whether the academic material enhanced the service experience and whether the service experience facilitated the understanding of the academic material. A third finding named reflection as the powerful facilitator between content and experience. The forms of reflection included written journals and papers and discussions among students and with professors.

Staying with the GE Astin service studies, Astin and Sax (1998) conducted a quantitative, longitudinal study investigating the effects of service participation on almost 3,500 undergraduates at 42 institutions. Data were collected in surveys similar to Astin’s

2000 study. Astin and Sax (1998) reported that all 35 student outcome measures (12 civic responsibility, 10 academic development, and 13 life skills items) were favorably influenced by service participation. A positive effect (small but statistically significant) of service on academic outcomes of GPA, increase in general and discipline knowledge, time devoted to study, and preparation for graduate studies was reported. Astin & Sax (1998) concluded that undergraduate service preparation serves to enhance academic development. When they looked at just those students who were involved in an education-related service program, they found that education-related service had a positive impact on more academic outcomes than any other type of service. This led them to claim that these findings might be interpreted as strong evidence that students become better students by helping to teach others. This study might have implications for education majors who work in schools for their service experience. It would make sense for students pursuing an education degree to academically benefit from teaching experiences in an educational setting.

All three of these studies are cited often in the literature of service-learning studies. A few questions remain unanswered. Is there a correlation between the quality of the service-learning and academic outcomes? Could it be that students who are interested in service might be predisposed to improving in the indicated areas? These two quantitative studies relied mainly on grade point average and students' self reports. Is there a way to assess academic outcomes without relying on students' perceptions? What one chooses as a standard for measuring learning may not be used by another.

A GE mixed method study done by another often-cited researcher, Furco (2002), focused on measuring 529 high school students' development across six domains

(academic, career, personal, social, civic, and ethical). Furco compared service to non-service groups and then compared the differences in outcomes for students doing three types of service (community service, service-learning, and service-based internships). The qualitative analysis used an inductive approach to establish patterns and themes. A comparative analysis on the frequency and strength of data entries was conducted on a six by eleven mega-matrix through the quantification of qualitative data. Both quantitative and qualitative analyses revealed significant differences between the service and non-service groups. The domain score for the service group was significantly different than the non-service group for each of the six domains. When looking at the three different types of service, the academic domain adjusted mean was significantly higher than the non-service groups' adjusted mean. Furco (2002) explained that this was interesting because enhancing students' academic development is usually an intended purpose of service-learning programs. The qualitative analysis found no identifiable domain patterns for any program type; all four had a substantial number of incidents of positive educational outcomes in all 6 domains. Furco (2002) stated that this finding dispels the notion that certain types of service programs promote particular outcomes. In this study, perhaps the focus on frequency and strength as qualitative data was more limiting than possibly quality of experience, but frequency and strength may be easier to measure for the comparative analysis.

This finding of no difference among the different groups seems at odds with Vogelgesang and Astin (2000) who found that service-learning, more than community service or a service internship, enhanced the development of academic outcomes defined as GPA, writing and critical thinking skills. Could it be that Furco's (2002) choice of

frequency and strength had a different focus than Vogelgesang and Astin's (2000) GPA, writing, and critical thinking? Could the disconnect come with the definition of academic outcomes?

These issues were addressed by two other often-cited researchers in GE service-learning studies. Eyler and Giles (1999) observed that in most studies academic learning is measured by tests and grades. They suggest that maybe it should be understanding that is measured. Again in 2000, Eyler claims that it is difficult to determine academic outcomes so she suggests that perhaps the field of service-learning should define what they mean by academic outcomes so those outcomes can be measured and tested. Eyler and Giles (2002) conducted a GE quantitative study of 66 students in service-learning courses in seven colleges and universities to assess students' depth of understanding and critical thinking. They used interview data and found that the quality of the service-learning experience made a difference when measuring logical outcomes of service-learning: quality of issue understanding and cognitive development central to critical thinking. They explained that survey research does not allow for the capture of complex thinking or the assessment of critical thinking. Essays allow for a demonstration of a range of thinking, but elaboration is not possible. Interviews are interesting and challenging and provide rich data to accurately assess appropriate outcomes for academic learning so students can demonstrate and not simply report. They again call for the field to identify the kinds of student performances that should be enhanced by service-learning.

Also focusing on academic issues, Rockquemore & Schaffer (2000) conducted a mixed method study of 120 students enrolled in service-learning courses at Pepperdine

University where the students were racially homogeneous and in a high socio-economic bracket. All students answered a 26 item questionnaire before and after their service-learning experience. Questionnaire data empirically demonstrated that service-learning was a pedagogical strategy that facilitated student learning.

A sub-sample of 50 students was chosen for a qualitative analysis of reflective journals and class discussions. The inductive approach of grounded theory was used to identify common themes, develop a hierarchy and synthesize themes into theses. Their goal was to inquire into the cognitive processes that take place during the service-learning experience. Rocquemore and Schaffer (2000) claimed to place students' voices at the center of their grounded theory approach to data analysis. Qualitative data suggested that individuals progressed through three distinct stages of cognitive development: shock, normalization, and engagement. They closed the discussion with suggestions for facilitating students' journey through these stages. They also suggested that reflections should be a significant portion of the class assignments. They did note that this stage theory emerged from the data of this particular group of students, but the findings may not be consistent for students of different races or different economic backgrounds.

In a more recent study, Michael (2005) conducted what he called a small scale project. In a self-proclaimed answer to Eyrer's call for a clarification of academic outcomes, Michael (2005) conducted a GE quantitative study of 118 college students in a developmental psychology course. He set out to assess direct academic outcomes of service-learning where 60 participants were in a service-learning section of the course and 58 participants were not involved in service-learning. He designed specific exam

questions that asked for application of knowledge to new situations. He explained that there was a statistically significant difference between the two groups. Service-learning had a positive impact on academic outcomes. Students' learning was enhanced by service-learning as they were able to apply the knowledge they acquired to a new area. This study differed from others because the academic outcomes tested were application of knowledge and the data were exam questions, not GPA or self-reporting.

In another recent GE quantitative study, Tannenbaum and Barrett (2005) found that their study of 566 college students in 19 service-learning courses (drama, communications, multicultural perspectives, business, sociology, science, and gerontology) with ten faculty members substantiated previous research on service-learning's improvement of students' understanding of course content. The survey had students' completing fifteen items on a five point Likert scale at the end of the fall and spring semesters. Faculty members were interviewed before the surveys were given. The academic outcome identified for this study was improving students' understanding of course content, but no specific content was mentioned. Tannenbaum and Barrett's (2005) unique contribution identified a correlation between student perspectives' of improved understanding and faculty utilization of best practices.

The final GE service-learning program claiming academic outcomes, was a case study by Frank and Lee (2005). They took their college students beyond their comfort zones to Inner Asia. In this GE case study, Frank and Lee (2005) studied the effects of restoring a Buddhist temple on Asian history students. They found that students were able to connect Asian history and Buddhism to service in a cross-cultural setting by connecting classroom instruction to their service work of restoring a Buddhist

environment in Inner Asia. The researchers did not discuss the methodological aspects of their case study. They focused instead on making a case and offering proceedings for International service-learning experiences. This study was included because it reaches so far away from the typical service-learning setting that it allows me to take a step back and view college service-learning in a greater context. Furco's (2002) study is also beyond the boundaries of the general education studies discussed here in its focus on high school students. These two studies provide the awareness of the placement of college service-learning studies within a greater service-learning context.

Academic outcomes in teacher education studies.

As mentioned previously, many TE studies made reference to the *content—experience* connection, and often it was stated as a *theory—practice* connection. Theory about teaching and learning is introduced and discussed as content in education courses while service-learning provided opportunities for students to experience practices based on those theories. Researchers claim these connections are responsible for academic outcomes of service-learning experiences.

In 1995, Wade, an oft cited scholar of service-learning in teacher education conducted a mixed method TE study on the effects of service-learning on 41 future social studies teachers. Data included students' papers and journal entries, surveys at the beginning and end of the semester; practicum seminar discussions, standardized open-ended interviews with ten students; public school teachers' evaluations and interviews; and school children's comments. She inductively analyzed in-class written feedback, seminar papers, practicum evaluations and interview data by reading and rereading entries to develop categories. A graduate student and Wade (1995) coded papers

independently using the emerged categories while remaining open to new possibilities. Inter-rater reliability was 82 percent with differences resolved through discussion and consensus.

Wade (1995) found that service-learning experiences filled the gap often experienced by preservice teachers between theory and practice. In this study the participants made connections between the social studies curriculum and active citizenship. She noticed a difference between two types of service-learning experiences, direct and indirect. The direct service-learning projects were more productive at filling the *theory—practice* gap.

Wade (2003) conducted what she called an informal TE study of students in social studies classes. She was interested in how her students might be advocates for change so she included an advocacy service-learning component in the class. Students had to choose, research, and write an advocacy letter to an organization with the goal to promote social change. She then had them write a reflection on how the assignment could be changed for elementary students. She found that for most students, this task was a valuable learning experience that resulted in meaningful learning of issues related to social studies.

Also claiming beneficial, academic outcomes, while connecting theory to practice in an elementary school setting, were Cox-Petersen, Spencer and Crawford, (2005) and Dodd and Lilly (2000). In a case study conducted by Cox-Petersen et al. (2005), 32 preservice teachers in two sections of math and language arts methods courses had to design an eight lesson integrated unit to teach elementary English language learners in an after-school program at five elementary schools. The researchers believed that this

context provided opportunities for preservice teachers to authentically use the content and skills presented in their science and language arts courses. After analyzing the reflections, lessons and self evaluations through matching to course objectives and open coding techniques, Cox-Petersen et al. (2005) claimed that service-learning was a worthwhile experience that assisted preservice teachers to feel more confident about teaching science and literacy and “enhanced their knowledge and skills for teaching English learners” (Cox-Peterson et al., 2005, p. 8). They added that service-learning in methods courses helped preservice teachers connect course content with service-learning experiences. While their findings were consistent with other studies on service-learning, the description of their analysis procedures was lacking depth. Matching data to course objectives and open coding techniques (Strauss & Corbin, 1998) were all that was offered for analysis of data.

Continuing with the elementary school context, Dodd and Lilly (2000) conducted a qualitative TE study on the logistics and implications of service-learning projects on 46 early childhood and elementary preservice teachers enrolled in language arts or curriculum courses at two southern universities. Similar to the work done by Wade (1995, 2003) and discussed previously, students’ service-learning projects involved direct, indirect and advocacy partnerships and services in the local communities. Researchers read, analyzed, and synthesized questionnaires, planning guides; documentation and pictures from site visits; focus group responses; and students’ narratives & reflections in a constant process to code, generate patterns and identify emerging themes. When referring to the theory-to-practice connection, Dodd and Lilly (2000) found that students learned about literacy through real world experiences and one

student offered that service-learning was a great way to put learning theories into practice. They found that structured and on-going reflections were integral to the success of the service-learning program.

Looking at a secondary setting, Brown (2005) conducted a qualitative TE study of 73 graduate teacher candidates over five years to explore the influence of service-learning when infused into a one year, site-based, alternative route to secondary teacher certification program. She found that even though the one year certification program was more intense than more traditional programs, students experienced a number of benefits, including a theory to classroom practice connection resulting in the augmentation of educational foundations and content knowledge. Unique to this discussion thus far, Brown (2005) found that service-learning was often interpreted differently by the servers and receivers. The servers saw their role as creators of new activities, demonstrations, and methods to assist high schoolers with their learning. Receivers (the high school classroom teachers) saw the servers as volunteers who were there to help them. It seemed that service-learning outcomes were more successful when the two groups negotiated a shared definition of the role of servers within the context of the program goals.

The *theory—practice* connection discussed in all the above TE studies carries through to Abouezk and Patterson's (2003) mixed method TE study on 26 elementary and then 27 secondary preservice teachers' perspectives and usefulness of service-learning in physical education teacher education. Students worked in teams to design and teach six lessons on physical activity and nutrition to low income families. Researchers explained that these service learning projects bridged the gap between theory and practice by allowing students to actively practice their teaching, leadership, and communication

skills. They found that university students and supervisors worked together facilitating the discovery and application of subject specific content. Abourezk and Patterson (2003) used quantitative and qualitative methodologies while conducting this study. They wanted to assess whether or not the findings were in alignment. They found that the qualitative themes (coded by two independent researchers with an inter-rater agreement of 93.6%) mirrored the results of the quantitative data. The three emerging themes were collaboration, application of subject matter, and enhancement of leadership skills. The above TE studies in this academic outcome section addressed different perspectives of the *content—experience* connection perceived as a *theory—practice* connection by teacher education researchers focused on social studies, elementary school, secondary school, and physical education.

Also claiming academic outcomes with service-learning experiences are the last two TE studies in this section, Malone, Jones, and Stallings (2002) and Shakir (2003), who take a more transformation perspective. “The goal of learning is not only the acquisition of knowledge, but the transformation of students’ perspectives of themselves and the world in which they live” (Malone et al., 2002, p. 1). This quote set the stage for a mixed methods TE study on how a service-learning tutoring experience might foster a perspective transformation in 108 teacher education students. Using the grounded theory approach in analyzing essays, four categories emerged from the data with one identified as Perspectives on Teaching and Learning (the others are discussed in the following sections of this review). Students indicated that their perspectives on teaching and learning were transformed as a result of their service-learning experience. There was a clear connection between school and the real world as service-learning experiences

reinforced the academic content students learned in the college classroom and content reinforced service-learning experiences. Some students wrote that they did not understand some of the course concepts until they experienced them in service-learning. In addition to learning the course content, the researchers shared that the students appreciated having the opportunity to apply the course concepts in their tutoring sessions. The significance of not only learning course content, but also applying it in a service-learning experience was also indicated as a valuable component of service-learning in the previous study by Abourezk and Patterson (2003). Also similar to Abourezk and Patterson's (2003) finding, many of the qualitative themes that were identified in students' essays were in alignment with the quantitative analysis of questionnaire responses.

Finally, Shakir (2003) also offered a transformation perspective to her mixed method TE study. She used the qualitative methodology utilizing observation, surveys, questionnaires, group meetings and dialogic interaction to study the college students while the quantitative used a one-group pre-test, post-test design to measure elementary students' academic achievement. Also, different from Malone et al.'s self description of education as a transformative experience, Shakir looks to Freire's educational philosophy or "education for liberation" for her description of transformation. She explains her perspective of Freire's

conscientizacao ...this stage of liberation first requires revealing to the oppressed that, through their struggle, they must find the way to life-affirming humanization. Those being educated, the poor, oppressed, and marginalized- 'must perceive the reality of oppression not as a closed world from which there is no exit, but as a limiting situation which they can transform.'" (Freire in Shakir, 2003, p. 4)

Quantitative results showed that the math and language scores of the elementary students in the study group showed the greatest amount of growth over the length of the study when compared to the control groups in three other elementary schools. The qualitative part of this study looked at the classroom readiness of seven new teachers and one preservice teacher in an elementary urban setting. 102 sixth graders made up the receiving end of the after school and Saturday tutoring sessions. Qualitative results found that teachers were able to practice teaching using culturally congruent approaches while contributing to elementary students' academic achievement in math and language. Answers on a self-assessment/evaluation questionnaire indicated that participants felt they had gained pedagogical knowledge that would make them more effective teachers. Shakir (2003) claimed that these findings and those to be presented in the following sections of this review "helped to transform previous assumptions and beliefs with practical knowledge and understanding." (p. 21).

After reviewing all of these GE and TE studies on service-learning, I realized that there was a variety of outcomes that fell within the general "academic" category: course *content—experience* connection for GE studies that translate into *theory—practice* connection for TE studies; GPA; critical thinking; student understanding; stages of cognitive development; augmented or reinforced content; and application of newly acquired knowledge. With so many options it makes sense that Eyler and Giles (1999, 2000, 2002) would suggest that the field should clarify what constitutes academic outcomes for service-learning experiences. Table 1 offers a summary of the primary academic outcomes for service-learning.

Table 1.
Academic Outcomes

| General Education | Teacher Education |
|--|--|
| <ul style="list-style-type: none"> • GPA • Writing skills • Critical thinking skills • General knowledge • Disciplinary knowledge • Preparation for graduate study • Understanding • Issue understanding • Applying knowledge • Understanding course content | <ul style="list-style-type: none"> • Theory and practice connection • Understanding social studies issues • TESOL language and skills • Literacy • Applying content • Teaching perspectives • Gaining pedagogical knowledge |

Academic outcomes claimed by the researchers of all these studies are in accord with Dewey’s ideas on experience in education. Service-learning experiences help students connect school to the real world as interacting with the environment facilitates the educative process. Sensory experiences of the body provide the mind with new information that connects to prior knowledge to form new knowledge and understanding (Aristotle in Ozman & Craver, 1990; Dewey, 1944; Piaget, 1970; Shulman, 1999).

While most qualitative studies used student reflections as part of the analyzed data, a few studies (Astin et al., 2000; Dodd & Lilly, 2000; Eyler & Giles, 2002; Rockquemore & Schaffer, 2000) actually named reflection as the connecting agent between content and experience, or theory and practice. Dewey (1944) named the connection thinking, but his definition could fit a current day interpretation of reflection: an accurate and deliberate connection between what is done and its consequences. He continues with the idea that when thinking not only notes connections, but also takes in details of the connection involved in the experience, the result is knowledge.

Professional development.

The chosen service-learning literature related to professional development includes some of the studies discussed in the previous section on academic issues. If a study has already been described in the academic outcomes section, the description will not be repeated in this section. Rather, just the findings and pertinent information necessary to understanding the study findings and their connection to professional development are discussed. All of the literature discussed in this section focuses on teacher education studies because it refers to the professional development of teachers.

There is a strong theme in the literature that indicates that preservice teachers who have participated in service learning during their preservice years are predisposed to using service-learning as a teaching strategy in their future classrooms (Brown, 2005; Dodd & Lilly, 2000; Root, Callahan & Sepanski, 2002; Wade, 1995; Wade, Anderson, Yarbrough, Pickeral, Erickson, & Kromer, 1999). While most of these studies rely on preservice teachers' self reporting on their future intentions, one study by Wade et al. (1999) looked at novice teachers' experiences of community service-learning. The participants included 344 K-12 public school teachers in their first through fourth years of full time teaching in urban, rural and suburban settings. Each of the participants attended one of four teacher education programs that incorporated service-learning as a teaching method in their preservice teacher education program. In this mixed method study, the quantitative data included a short and long form survey. Wade et al. (1999) credited Miles and Huberman with the analysis procedures used on the qualitative interview data of 30 of the teachers. Data were analyzed through a data reduction, data display, and conclusion drawing and verification process.

Wade et al. (1999) came to the general conclusions that a vast majority of the teachers had positive experiences with service-learning in their teacher education programs. This vast majority also expressed a strong commitment to service-learning involvement in the future. About 30 percent of the novice teachers had already implemented service-learning in the first few years of their full time teaching. Two challenges to implementing service-learning were pointed out: time limitation and lack of support for service-learning from school communities. The researchers noted that despite the prevalence of these two factors, 102 teachers in this study did manage to implement service-learning practice.

Wade et al. (1999) concluded that novice teachers were more likely to employ service-learning as a pedagogical strategy under two conditions: if they participated in varied high-quality service-learning experiences in their teacher education programs in which they had significant ownership; and if they were provided with support for implementing service-learning in their schools. They also explain that novice teachers were more likely to teach as they were taught in their early years, but this study suggested that novice teachers were willing to try new teaching strategies that they learned in teacher education programs and could do so with success.

In a previously discussed study focusing on the effects of service-learning on future social studies teachers, Wade (1995) found that preservice teachers came to value service-learning as a teaching strategy. They self reported that they would use it in their future teaching even though they recognized that service-learning has challenges related to time and organizational issues.

Also addressing intent to use service-learning is a multi-site study by Root, Callahan, and Sepanski (2002) which was conducted to test the connections between service-learning and six teacher development areas: teaching efficacy; commitment to teaching; service ethic of teaching; acceptance of diversity; intent to personally engage in service-learning in the future; and the intent to utilize service-learning in future teaching. There were 442 participants from nine teacher education programs who voluntarily completed pre- and post- tests on the first and last day of classes. 89% of students in the study provided service to children while 22% assisted a classroom teacher, 10% worked with senior citizens, 9% worked with the ill or disabled, and 7.8 % worked with the homeless. Root et al. (2002) found that there was no significant effect of service-learning on teaching efficacy or commitment to teaching which is not surprising because on the pre- and post-test students demonstrated a high degree of certainty on their desire to enter the teaching field. The service ethic of teaching had a significant positive change for “teachers can bring about social change” and a significant decline in “I like helping people.” All items improved for attitude toward diversity. There was no change for intent to personally engage in service-learning in the future, but there was a significant increase in overall intent to utilize service-learning activities in their future teaching. A few results have implications for this research study. The fact that participants made significant gains in their plans to include service-learning in their future teaching supports the contention that including this method in teacher education can foster service-learning’s filtering down into K-12 classrooms. Despite Wade et al.’s (1999) finding explained in the previous study above that designing and implementing a service learning project for K-12 students more strongly predicted intent to use service-learning than other

experiences, the results of this study indicate that a wide variety of service-learning activities in teacher education can encourage future teachers to adopt this method.

Service-learning provided opportunities for preservice teachers to develop professional practices of teaching. Service-learning also provided preservice teachers with opportunities: to make sense of the behavior of students (Shakir, 2003); to develop skills, knowledge, and values of an effective social studies teacher (Wade, 1995); to gain confidence for teaching science and math by authentically using content and skills (Cox-Peterson et al., 2005); to plan and do collaborative lessons with other preservice teachers (Brown, 2005); to acquire cross-cultural communication skills (Brown, 2005; Shakir, 2003); to gain insight into school politics (Brown, 2005); and to serve as a resident expert on teaching teams which positively impacted their ability to lead (Abourezk & Patterson, 2003). Table 2 offers a summary of the professional outcomes of these studies.

Table 2.
Professional Outcomes

| General Education | Teacher Education |
|-------------------|---|
| | <ul style="list-style-type: none"> • Use of service-learning in own classroom • Valuing service-learning • Being a change agent • Making sense of students' behavior • Gaining pedagogical skills & knowledge • Gaining confidence for teaching • Planning and teaching collaboratively • Gaining insight into school politics • Gaining leadership skills |

Personal development.

Studies included here are those that name personal development as an outcome of participating in service-learning and those who describe characteristics of personal

development without naming it as personal development. Because of this, both general education and teacher education studies are included in this section. As in the last section, if studies have been described in a previous section, only the findings and other necessary information are included here.

Participating in service-learning allowed high school and college students to develop leadership skills (Furco, 2002; Astin & Sax, 1998), although Vogelgesang and Astin (2000) found that growth in leadership was not impacted any more from service-learning than it was from “generic” service. For GE studies, leadership comes under personal development while it is included in professional development for TE studies. Part of the work of teachers is to take a leadership role and service-learning helped them do that within the professional setting. Another similarity was related to career choice. In the GE studies, service-learning helped students make a career choice (Furco, 2002; Vogelgesang & Astin, 2000) and develop self confidence (Astin & Sax, 1998; Astin et al., 2000). TE studies produced findings that indicated that service-learning assisted preservice teachers’ to feel personal satisfaction and self worth from their service experiences (Cox-Peterson et al., 2005; Dodd & Lilly, 2000; Malone et al., 2002).

The next three groupings are mixed with GE and TE studies. Students found that participating in service-learning contributed to the feeling that they made a difference in the world (Astin et al., 2000; Wade, 2003) while Wade (1995) warned that there may be difficulties in trying to make that difference. Participants gained an awareness of themselves and the world (Astin et al., 2000; Malone, 2002). Frank and Lee (2005), who took their student to restore a Buddhist community in Inner Asia, found that students who

participated in their international service-learning project had a more sophisticated understanding of the world.

Finally, because of their service-learning experiences, participants showed positive changes in their attitude toward school, themselves, and others (Carlan & Rubin, 2005; Furco, 2002). Carlan and Rubin (2005) conducted a qualitative TE study on the effects of service-learning on preservice teachers working with minority students where many participants were of the same cultural and economic background as the minority elementary students. Data included a before and after service survey and reflections. Analysis involved what the researchers called an emic, inductive approach where each professor found patterns in their own data and then reviewed patterns in others in a peer check of the data. Carlan and Rubin (2005) found changes in preservice teachers' attitudes about children's academic abilities, motivational level, behavior and families if they were from a different background. Consciousness was raised for those preservice teachers who came from the same background as the minority elementary students.

Table 3 offers a summary of personal outcomes from these studies.

Table 3.
Personal Outcomes

| General Education | Teacher Education |
|--|---|
| <ul style="list-style-type: none"> • Leadership skills • Self-confidence • Self-awareness • Attitudes toward school, self & others | <ul style="list-style-type: none"> • Self worth • Personal satisfaction • Attitude toward students |

Social outcomes.

This category of service-learning research encompasses all those studies that address other people: community, cultures, diversity, reciprocity, citizenship, and social

justice. Both GE and TE studies are discussed with more details provided for those studies that have not yet been introduced in this review.

One of the major elements, principles and benefits of service learning is the task to meet a community defined need. Service-learning participants became involved in the community and tried to work effectively so that they could contribute something to the community (Cox-Peterson, 2005; Furco, 2002; Wade, 2003). Students became more committed to helping others, serving their communities and doing volunteer work (Astin & Sax, 1998). Shakir (2003) explained that service-learning strengthened connections between the school, the families and the community. The seven new teachers and the one preservice teacher, when tutoring the sixth graders, became a vital part of the community. Wade (1995) found that forty-one preservice social studies teachers came to believe in the importance of community service, while Malone et al. (2002) found that through tutoring fourth and fifth graders, preservice teachers in three teacher preparation classes were transformed as they developed new perspectives and attitudes about service and their responsibility to the community.

Fenzel and Leary (1997) found that after participating in service-learning, college students had a greater level of commitment to want to work in the community to help solve social problems. They conducted a GE mixed methods study involving two groups (n=28, n=29) taking the same philosophy course with the same instructor, but one group was involved in service-learning while the other had a non-service assignment. The quantitative study involved two measures with acceptable reliability, a Social and Personal Responsibility Scale and a Defining Issues Test. A number of documents were used for the qualitative study, but there is no discussion offered for how the qualitative

data were analyzed. When analyzing the quantitative data, Fenzel and Leary (1997) found that there were no significant differences in gains in social and personal responsibilities between the two groups. Qualitatively they found the commitment to community as described above. Here is a case where the quantitative and qualitative outcomes do not correspond. Quantitative showed no difference while qualitative offered a few findings (others are discussed later). A further examination of documents showed that on the standard course evaluation form filled out by students at the end of the semester the service class rated the course higher on all 14 aspects of the course and the instructor higher than the non-service class.

Another aspect of social outcomes is culture. Brown (2005) found that service-learning positively influenced students' multicultural perspectives. Students participating in service-learning also improved their cross-cultural communication skills (Boyle-Baise & Kilbane, 2000; Brown, 2005; Frank & Lee, 2005). The promise of service-learning was not fully realized for multicultural education in a study by Boyle-Baise and Kilbane (2000). They conducted an interpretive case study to discover what happens and what preservice teachers think about what happens within a service-learning experience for a multicultural education course. Among the twenty four preservice teachers, twenty were white, seven were male and thirteen were female. Two women were Latinas and two were African American. Most described their neighborhoods as middle-income, while five were high-income and three were from low income backgrounds. Data included interviews, observations, and reflective essays which were analyzed through recurring themes, frequency of responses, and constant comparison. Data were read separately and then interpretations were cross-checked. The goals set for this service-learning

experience were: to interact with culturally-diverse and low income groups, to disrupt stereotypes, to gain awareness of community problems and resources, and to learn to work positively with diverse youth.

Boyle-Baise and Kilbane (2000) found that the roles and perspectives of preservice teachers fell into three categories: playing it safe, teacher helper, and companionship. Preservice teachers were concerned with fitting in and many times decided to play it safe by staying focused on the task at hand, keeping comments to students positive, and responding to children rather than initiating interactions. The teacher/helper role dominated the service-learning interactions. Preservice teachers found it was easy to provide assistance or help out the teacher. Companionship allowed preservice teacher to “hang out” with children on an informal level. Time seemed to challenge the establishment of this type of relationship with children. The researchers explained that these three roles and perspectives did not lie on a continuum, but there did seem to be a progression toward companionship.

When considering their goals, Boyle-Baise and Kilbane (2000) reported that preservice teachers did learn through service-learning experiences in culturally diverse situations. They had the “opportunity to interact cross-culturally, disrupt stereotypes, experience community resourcefulness, and learn to work positively with diverse youth” (p. 62). The researchers claimed that what happened in this study did not fully realize the promise of service-learning for multicultural education. Preservice teachers’ links to understanding the diverse community were weak. They suggest that some issues should be resolved so that future service-learning experiences could be more effective.

One essential component of service-learning is reciprocity. Jacoby et al. (1996) explained that reciprocity is one concept that has driven efforts to achieve high quality service and learning in a service-learning project. “Reciprocity suggests that every individual, organization, and entity involved in service-learning functions as both a teacher and a learner. Participants are perceived as colleagues, not as servers and clients” (Jacoby et al., 1996, p. 36). They argue that service-learning is a philosophy of reciprocity which moves from charity to justice and from service to the elimination of need. Porter and Monard (2001) reinforced this idea as they explained that a service-learning project involving reciprocity focused more on offering a “hand-up” rather than a simple “hand-out” (p. 5). Jones and Hill (2001) conducted a qualitative study where six (university) student participants in a service-learning class worked with eight community participants from two community service organizations in a food pantry and an AIDS service organization. The purpose of their study was to uncover the meaning of the service-learning experience for participants and gain an understanding of the learning that occurs when individuals engage with persons who are different from themselves. Data included one semi-structured interview with each participant (students, community members and executive directors) and analysis involved the constant comparative method of grounded theory with three levels of coding.

Jones and Hill (2001) found that developing an understanding of diversity in a service-learning context comes through relationship building. The relationship building was developed through the creation of common ground for work, an increasing sense of efficacy, and compassion and empathy among participants. The creation of the common ground provided opportunities for dialogue and interaction which allowed reciprocal

learning to occur as community members became teachers and role models based on their expertise in a particular setting.

Jones and Hill (2001) explained that if reciprocal relationships were those in which all partners designed, learned, and benefited from an experience, then the design should raise questions as to whether or not this was truly possible in diverse settings where time was a constraint. They also explained that the community looked on service-learning as essentially about college interests and college student learning so they suggested that anyone who included service-learning in their courses should work to make sure the community also benefited from the experience.

When considering community voice, Jones and Hill (2001) found that all persons involved in this study had different perspectives, life experiences, and needs and the students learned some of their most valuable lessons while listening to community voices. But they cautioned, reciprocity in the context of diversity, or bridging boundaries between diverse communities, requires mutual understanding and appreciation of differences. Without the presence of these important qualities, reciprocity would be shallow, stereotypes reinforced, and power dynamics between the community and university clearly tilted in the direction of the university (p. 214).

The researchers suggested that the university should rethink their role in the community and the meaning of their partnership with the community. While reciprocity was presented as an integral component in a service-learning experience (Eyler and Giles, 1999; Jacoby et al., 1996; Stanton et al., 1999), care has to be taken in how the equity of benefits in that reciprocal relationship could be maintained.

When looking at citizenship, Astin and Sax (1998) stated that service activities during the undergraduate years had a positive effect on students' sense of civic responsibility. Astin et al. (2000) looked to the qualitative findings and reported that both faculty and students developed a heightened sense of civic responsibility and personal effectiveness through participation in service-learning courses. Wade (2003) summarized her study of social studies preservice teachers by situating them on a journey to becoming informed and active democratic citizens and teachers. Carlan and Rubin (2005) stated that service-learning promoted social awareness and served as a catalyst for activism and social justice while Brown (2005) offered that participants gained social justice cognizance through their service-learning experiences.

Vogelgesang and Astin (2000) found that for values and beliefs, service-learning had an independent effect both on students' commitment to promoting racial understanding and activism. They indicated that this suggests service-learning provides a concrete means by which higher education institutions can educate students to become concerned and involved citizens. After participating in service, students were more willing to stand up for what they perceived to be right, were willing to advocate for a cause they believed in, became more inclined to believe that individuals had the power to change society and were stronger in their belief that they could make a difference in the life of another (Astin & Sax, 1998; Fenzel & Leary, 1997; Furco, 2002; Wade, 2003). Lilly (2001) suggested that "we need to consciously and systematically lead future teachers to connect their own practice with a personal goal to improve the human condition" (p. 214). Service-learning may be an avenue for that improvement. If teacher educators model the use of service-learning in their practice, then future teachers may be

more inclined to incorporate service-learning in their own teaching which might assist in improving the human condition one classroom at a time. Issues of equity often require an ethic of care. Table 4 offers a summary of the primary social outcomes of these studies.

Table 4.
Social Outcomes

| General Education | Teacher Education |
|--|--|
| <ul style="list-style-type: none"> • Commitment to helping others • Cross cultural communication skills • Understanding of diversity through relationship building • Mutual understanding • Sense of civic responsibility • Becoming concerned and involved citizens • Advocacy | <ul style="list-style-type: none"> • Service attitude • Responsibility to community • Multicultural perspectives • Cross-cultural communication skills • Social justice perspectives • Becoming informed and democratic citizens |

Discussion

The studies in this review were quite varied in their methodology. Some involved self-reporting and included archival data, such as GPAs, on thousands of students. Other studies took a more in-depth look at individuals or programs. Each approach has its strengths and weaknesses. Large samples can show typical patterns and relationships but often do not describe quality of programs. Self reporting and GPAs, while helpful, do not provide details for closer scrutiny of cause and effect relationships. On the other hand, inquiry into individuals and programs may offer insight on service-learning within a particular context, but the findings do not necessarily transfer to different settings.

A few studies reviewed here were conducted with a large number of participants but did not address program quality (Astin & Sax, 1998; Furco, 2002; Tannenbaum & Barrett, 2005; Vogelgesang & Astin, 2000). The Astin studies focused on GPA and self reporting while Furco limited the identification of academic outcomes to frequency and strength of data entries in order to compare across types of service experiences. Dodd and

Lilly (2000) had fewer participants with a variety of data sources and a detailed data analysis process, but their research questions were more open ended than other qualitative studies. Their findings were broader and more general compared to studies that focused on a particular aspect of service-learning. Eyler and Giles (2002) studied issue understanding and critical thinking; Michael (2005) focused on application of new knowledge; Wade (1995, 2003) looked at direct, indirect and advocacy types of service-learning projects while Malone et al. (2002) and Shakir (2003) studied transformation of participants' perspectives.

While the academic outcomes in these studies seem logically connected to Dewey's ideas of experiential education and the acquisition of knowledge, not all of the outcomes would be identified as knowledge acquired according to Dewey and others. Looking at the academic outcomes reviewed here, those that might connect include critical thinking, understanding, application, and gaining pedagogical knowledge. GPAs, writing skills, and literacy do not necessarily indicate how knowledge, as described in the theoretical framework, was acquired. No one studied how participants made sense of their experiences. When considering professional development outcomes, making sense of students' behavior, gaining pedagogical skills & knowledge, gaining insight into school politics, gaining confidence for teaching, and planning and teaching collaboratively might indicate that participants acquired knowledge in these areas. Personal outcomes indicate that participants might have acquired knowledge about themselves which impacted their leadership skills, confidence, attitudes, and self worth. Finally, social outcomes suggest that participants gained knowledge about the world beyond themselves in order to profess a commitment to help others, acquire cross cultural

communication skills, understand diversity through relationship building, gain a sense of civic responsibility, become concerned and involved citizens and gain a social justice perspective.

Conclusion.

The empirical work on service-learning in teacher education is consistent in its conclusion that something good invariably comes out of service-learning experiences. What is that good? It depends. As illustrated in the aforementioned studies, there could be academic, professional, personal or social outcomes for service-learning participants. If the academic outcomes were not strong, then the personal or social tended to rise to the forefront. Overall, study results look pretty positive, maybe because there are so many options for looking good.

Since there are so many options for the positive, the not-as-positive may seem to pale in comparison or as Whitfield (2005) explains, rarely are the difficulties that accompany service-learning ever addressed. Whitfield is the director of a University service-learning center and lauds the many and varied benefits that service-learning has to offer. She also cautions that the field should pay close attention to the “unwanted outcomes of service-learning lest the pitfalls create a regretful experience” (p. 248). Sometimes the community becomes the lesser partner in decision making when, in principle, their needs should be the focus. The community partner can also be left with the feeling of being used as the students pack up and leave at the end of the semester. Whitfield (2005) also explains that the students enter into service-learning experiences with expectations and many of those are fear related. Other student issues are related to flexibility, ambiguity, grading, lack of connection to participants in community setting,

group conflicts, and lack of preparation to step into a different setting, culture, or community than that with which they are familiar. Faculty are concerned that more service than learning might be happening, there might be liability issues, and it takes a tremendous amount of work, “it is not for the faint of heart” (Whitfield, 2005, p. 249).

There are so many factors that have to come together for an effective service-learning experience for all parties involved. I would guess that some of these issues might have emerged during the studies I have reviewed here and they were given little or no attention because there usually are many and more positive aspects to focus on. A few that were mentioned include: Boyle-Baise & Kilbane (2000) found that participants had significant positive outcomes as explained in the Social Issues section, but they did not have an in-depth understanding of family and community strengths and problems; and Wade (1995) found that about two-thirds of the social studies preservice teachers, when participating in service-learning projects in elementary schools, had some negative feelings about the project. They found home situations shocking and were frustrated because they could not provide quick solutions to inequity problems.

Tannenbaum and Barrett (2005) reported positive outcomes for service-learning experiences, but explained that there were problems when faculty did not adhere to the principles of best practice. They suggested that faculty be trained and follow the best practices for more positive outcomes. It is not explained in detail, but I imagine that the service-learning college students that traveled to Inner Asia had many financial, logistical, and organizational issues to deal with in traveling – and even more so considering their remote destination (Frank & Lee, 2005). Connecting with Whitfield’s (2005) assessment of challenges to the community, Brown (2005) found that community

members interpreted service-learning differently than the college students, so expectations were misguided. From my own perspective, service-learning advocates seem to have a more optimistic perspective on life and living. Due to the amount of time, effort and flexibility required to implement an effective service-learning project, advocates have to be seeing that the glass is half-full and not half-empty. As a result, the less than positive aspects may be perceived as not worthy of recognition. Whether researchers should also have that view is questionable.

Most of the studies on service-learning had outcomes in more than one of the four categories: academic, professional, personal, and social. Many of the studies with academic outcomes addressed the service-learning elements of students' construction of knowledge, challenging tasks, genuine need and reflection. Connections to service-learning principles included reflection, pedagogical strategy, and meeting all needs and interests. Some of these studies and more had professional outcomes. These included elements that addressed assessment, student voice, and preparation and principles that addressed pedagogy, assessment and goals. The studies offering personal outcomes addressed challenges, sensitivity, and leadership. Many of the studies with social outcomes had academic, professional and personal outcomes and addressed elements of diversity, communication, interaction, and collaboration and principles of diversity, reciprocity, and mutual respect. Many studies addressed multiple aspects of service-learning. A question one might ask is: Would the field be better served by a more narrow focus on an individual aspect under study?

Looking at individual aspects of service-learning components, elements, principles, etc. as the focus for a study might allow for a better assessment of its

effectiveness. Wade (1995) studied the types of service-learning and found direct projects were more productive for filling the *theory—practice* gap than indirect projects. In 2003 she did an informal study and found that an advocacy project resulted in meaningful learning of social studies issues (Wade, 2003). Eyster and Giles (2002) studied the specific academic outcome of critical thinking, while Michael (2005) focused his study on the application of knowledge to a new situation. Transformation was the focus of studies conducted by Malone et al. (2002) and Shakir (2003). These are examples of studies that focused on a specific aspect of service-learning and their findings addressed that particular aspect. This study was designed to follow a similar pattern. While searching for students' perspectives of their service-learning experiences, a more specific focus offers these perspectives through the lens of two models: regular and cascading.

When searching the literature of service-learning studies, I did not find any studies that utilized a cascading model of service-learning and named it as such in the article. Within the massive number of articles describing service-learning projects, I found a few articles that actually named service-learning projects as cascading. The Florida Community/Higher Education/School Partnership (CHESP) (n.d.) claimed to engage kindergarten through higher education students in collaborative service learning that addressed Florida's educational and community needs. This partnership funded two types of documents, projects that build infrastructure (research, curriculum design, etc.), and models of K-HE collaborative service-learning in which K-HE students serve together in teams or through a cascading process (e.g., A HE student tutors a HS student who tutors a middle school student). A second organization that named the cascading model was the Student Sharing Coalition in Baltimore City (n.d.) whose mission it is to

provide meaningful service and civic engagement experiences to students from diverse backgrounds with the goal of developing these students into mature and knowledgeable citizens. They named a cascading model of service-learning among their accomplishments, but they do not describe or define it. Mattos (2005), when describing his service-learning work at Windward Community College in Hawaii, claimed a cascading model of service-learning, but his description was of college tutors and mentors for younger students. In his description he did not talk about a second service project that is essential for the cascading service-learning model as defined for this study. The CHESP (n.d.) project was the only one to identify and name the cascading model in keeping with the description for this study.

Most service-learning projects utilize the regular model (e.g., Cox-Peterson et al.; Dodd & Lilly, 2000; Frank & Lee, 2005; Malone et al.; Shakir, 2003; Wade, 2003). Other service-learning projects were either too big to define the type of model used, or the researcher did not give enough information about the project to define it one way or the other (Astin & Sax, 1998; Astin et al., 2000). Among the descriptions of projects, not the studies, there were a few service-learning projects that were cascading, but they did not name the project as cascading. Kennedy (2005) talked about 36 special education service-learning projects where nineteen of them included service-learning projects for both the teacher and the students. Swick (2001) described three cascading service-learning projects. Preservice teachers mentored primary grades through tutoring and they read to the kindergarten in what Swick (2001) called mutual service-learning and empowerment. The second project involved preservice teachers in an environmental service-learning project with middle school students. The preservice teachers, their students and the

students' teachers collaborated on selecting, planning and doing an environmental study. The third project had preservice teachers help four and five year old children select books to read to senior citizens. After reading to the seniors, preschool students donated the books to a school that had minimal resources.

This study looked specifically at the sense regular-model majors made of their service-learning experiences and what sense cascading-model majors made of their service-learning experiences. Was there a difference between the regular majors' and the cascading majors' perspectives? Chapter four examines this question, but first the methodology of this study is presented in the following chapter, chapter three.

Chapter 3: Methodology

This study on service-learning in teacher education was an interpretive study using grounded theory methodology. According to Erickson (1986), everyday life is invisible to those who live it because of its familiarity. The type of inherent reflectiveness involved in interpretive research can help researchers “*make the familiar strange* and interesting again...the commonplace becomes problematic. What is happening can become visible, and it can be documented systematically” (Erickson, 1986, p. 121). The purpose of this study, to understand how freshman elementary education majors make sense of service-learning in teacher education courses, invited the use of this interpretive method described by Erickson as being appropriate for a study when one needs to know more about “the meaning-perspectives of the particular actors in the particular events” (Erickson, 1986, p. 121). He explains that interpretive research is not only an alternative method of study, but an alternative view of how society works as compared to the quantitative, positivist approach to research. Shulman (1986) seems to come from a similar perspective as he suggests that this type of study focuses on “discovering the meanings constructed by the participants as they attempt to make sense of the circumstances they both encounter and create” (p. 8). While this study was interpretive, to understand students’ perspectives, the data were analyzed and synthesized using grounded theory methodology which is addressed here.

The analysis of collected data, according to Strauss and Corbin (1998), is the interplay between the researcher and data. They suggest techniques and procedures for developing what they refer to as “grounded theory”. This grounded theory is inductively derived from data, systematically from the ground up. Codes are identified as data are

read and analyzed. These codes are grouped together into larger categories which are integrated in such a way as to develop more general assertions and tenets that form the theory. Along with this scientific, inductive processing of data within an interpretative study is the involvement of creative thinking. Creativity is called on to assist the researcher in naming categories, making comparisons, and developing a unique, integrated, and realistic theme from large quantities of raw data (Strauss & Corbin, 1998; Patton, 1990).

Overview

This study was conducted over two semesters, Fall 2002 and Spring 2003. It included the “Introduction to Education” course in the fall and the “Learning Theory” course in the spring. Both of these courses involved all majors in a service-learning project in a local, urban school, Granger Elementary School. For the “Introduction to Education” course, majors met in class on campus two times a week and then they participated in a service-learning project in the elementary school once a week. For the remainder of this document, all references to the college elementary education majors will be written as “majors” and all references to the elementary school students will be written as “students”.

Majors in one section of the “Introduction to Education” course participated in a regular model of service-learning (majors meet a school need) while the other section participated in a cascading model (majors and students worked together to meet a need). Three majors from each section were the participants for this study.

Research Questions

The following research questions were addressed by studying the experiences of freshman elementary education majors in “Introduction to Education” and “Learning Theory” courses. The first question with its two subsequent questions focused on the classroom activities and assignments for the college course while the second question focused on the service-learning experience.

What sense do freshmen elementary education majors make of their service-learning experience in their teacher education courses? What sense do they make of service-learning as it is integrated with the “Introduction to Education” course content in the Fall semester? What sense do they make of service-learning as it is integrated with the “Learning Theory” course content in the Spring semester?

What sense do freshman elementary education majors make of their service-learning experiences in the projects they conducted in the elementary school?

Setting

At Rowan College, students are first accepted to the college and then are able to declare their major. There are no additional qualifications required to declare elementary education as a major. Because of this process, the number of students entering the elementary education program can only be estimated, which makes planning a challenge. All incoming freshmen who indicate that they want to be in the elementary education program were advised to enroll in the “Introduction to Education” course in the fall of their freshman year. Over the three years prior to this study, there was an average of 57 students a year indicating that they wanted to be elementary education majors as determined by their registration for the “Introduction to Education” course. When this

study was conducted in the fall of 2002, there were 47 freshmen (upperclassmen were also enrolled in these courses, but were not included in this study or discussion) who indicated that they were interested in elementary education and enrolled in “Introduction to Education.” I taught three sections of “Introduction to Education.” Section one had 21 students, section two had 19 students and section three had 11 students (a fourth section was taught by another professor).

At the time of this study a large majority of Rowan College elementary education majors came from middle and upper middle class families with a large concentration coming from the North Eastern states, less from Middle Atlantic states, and a few from various other states. Only a few majors lived off campus or commuted from home while a large majority lived on campus.

Participants

The six participants were chosen from their questionnaire responses. They were asked to place a *yes* in the lower right corner of the first page of the questionnaire if they were interested in being a participant. I explained the course syllabus before majors have to fill out the questionnaire so I referred back to the syllabus and assured them that the grading system was linked to specific assignments and their grade would not be affected either positively or negatively by their participation or lack of participation in this study.

I limited this study to in-coming freshmen because I was interested in students’ initial perspectives of service-learning at the college level. Rowan College is very service oriented so sophomores and upperclassmen may have been exposed to service-learning in a different context. The selection of participants was not based on religious or socioeconomic criteria.

The criteria I used to select participants for this study included the following: college level, ethnicity, age, school type, and prior service-learning experience. I chose freshmen for the reasons described in the previous paragraph. With other categories I looked for diverse criteria for the possibility of gaining a wider view of different perspectives. There were two African Americans in the class and if they had volunteered to participate in this study I would have taken them with the hope that they would have offered ethnically diverse perspectives. I did not want to choose anyone under the age of 18 because parental permission to participate would delay the start of the study. I looked for variety in ages and found only traditional 18 and 19 year olds. I tried to include participants who attended public, private, and both public and private schools. Finally, I did not want to include anyone who had previously participated in service-learning at any time because I did not want this study confounded by participants' prior knowledge on service-learning experiences elsewhere.

“Introduction to Education” section ED 100.02, participated in the regular model of service-learning. Out of 20 students in the class, 12 indicated they were interested in being a part of this study. Out of that 12, five were sophomores and not considered for this study since there were enough freshmen volunteers. When I explained the study and that I was focusing on freshmen, some sophomores asked if they could volunteer just in case I did not get enough freshmen volunteers. Since this was discussed as a possibility at my proposal hearing I told them yes. One freshman volunteer was 17 and not considered for the study because parental permission was a time issue as mentioned previously. Of the remaining six volunteers, one was 19 and the others were 18. Five wrote "white" as their race while one wrote "African American". Because I was looking for diversity, the

19 year old African American was chosen for the study. Of the remaining five, three were private school students and two were public school students. The 19 year old was a public school student so I looked to the three remaining private school students and chose the two who had not participated in any service-learning in the past. Participants for the study from the regular model were Cindi, Tammy, and Mary.

Cindi was a 19 year old African American freshman from a public school in New Jersey. Prior to college she had participated in cheering, softball, Key Club, Environmental Club, scouts and dancing. She had worked with children ranging in ages from five to fourteen and had been an assistant dance teacher. When asked why she wanted a career in elementary education, she checked: I have an educator in my family; I have a desire to give back and serve; I think I would be a good teacher; I like the “flexible” schedule; and she enjoyed working with kids.

Tammy was an 18 year old white freshman from a private school in New Hampshire. In the past she had participated in volleyball, track, skiing, and Cornerstone (community service). She had worked as a church leader, a tutor/mentor and supervisor of an after-school program for kids. She had worked with children from ages four through twelve and she said that she was interested in elementary education because she had a desire to give back or serve and she thought she would be a good teacher.

Mary was an 18 year old white freshman from a private school in Pennsylvania. Prior to college she participated in field hockey, basketball, figure skating, sailing, dancing, Blue Key, AIDS awareness, church choir, chorale, Madrigals, orchestra, and jazz band. She indicated that she worked with children from age zero through age 15. She

wrote that she chose elementary education because she has an educator in the family, has a desire to give back or serve, thinks that she would be a good teacher, has a relative who is an educator, likes the “flexible schedule” and someone told her that she would be a good teacher.

“Introduction to Education” section ED 100.01 participated in the cascading model of service-learning. Out of 18 students in the class, only 16 were going to service-learning on Tuesday afternoon for the cascading model. The other two did service-learning at a different time due to schedule conflicts. Out of the 16 students in this class, seven volunteered for this study by writing yes (or the equivalent) at the bottom of the Initial Questionnaire. One was not considered for the study because he/she took the questionnaire and did not return it until the next class (even though they were asked not to carry the questionnaires out of the room). All who volunteered were freshmen. Four students were 18, one was 17 and one was 19. The student who was 17 was dropped from consideration. All remaining students wrote “white” as their race. The student who was 19 was chosen for the study to parallel the 19 year old participant in the other group. Out of the remaining four, one student attended both public and private schools. This student was selected for the study. Of the remaining three, two students attended public schools and one attended private schools. The private school student had previous service-learning experience and was not included. Out of the two remaining public school students, the one who did not have prior service-learning experience was chosen. The participants for the cascading model of service-learning were Nina, Deb, and Julie.

At the beginning of this study, Nina was an eighteen year old, white freshman from a public high school in Connecticut. She participated in varsity basketball, softball and field hockey. She was involved with her church youth group and spent the previous two summers, prior to the study year, working for a daycare center. She had worked with children ages one through eight. When asked why she had chosen to major in elementary education Nina checked off that she thought she would be a good teacher.

Deb was an eighteen year-old white, freshman who attended a public high school in New Jersey. She was a baby sitter, a day care teacher, a tutor/mentor, a member of both her youth group and the National Honor Society. When asked on a survey why she wanted to major in elementary education, she checked off: I have a desire to give back or serve; I think I would be a good teacher; I have a relative who is an educator, someone told me I would be good teacher, and in the “other” category she wrote, “I love kids”.

Julie was a nineteen year old, white, female freshman who had attended a private high school in Pennsylvania. She was involved with varsity and intramural field hockey, the Athletic Association, the National Honor Society, her church’s Catholic Youth Organization (CYO), and community service. She had worked with children aged 3 through 15 as a camp counselor, coach/referee, and tutor/mentor. When asked on a survey why she wanted to be an Elementary Education major, she checked off the following reasons: Someone told me I’d be a good teacher; I think I would be a good teacher; I have a desire to give back or serve; and under the column marked “other” she wrote “I like working w/ children.” Table 5 offers a description of participants.

Table 5.
Description of Participants

| | Ethnicity | Age | School Type | Prior Service-Learning |
|-----------------|------------------|-----|----------------|------------------------|
| Regular Model | | | | |
| • Cindi | African American | 19 | Public | No |
| • Tammy | Caucasian | 18 | Private | No |
| • Mary | Caucasian | 18 | Private | No |
| Cascading Model | | | | |
| • Nina | Caucasian | 18 | Public/Private | No |
| • Deb | Caucasian | 18 | Public | No |
| • Julie | Caucasian | 19 | Private | No |

Description of Courses

A description of the “Introduction to Education” and the “Learning Theory” courses are offered here to help situate the study and the data sources within their authentic context.

ED 100: Introduction to Education Fall 2002

All six participants attended ED 100, *Introduction to Education*, in the fall of 2002. The three students in the cascading model of service-learning were in ED 100.01 on Monday and Wednesday afternoons from 1:00 until 1:50. The three students in the regular model of service-learning were in ED 100.02 on Tuesday and Thursday mornings from 10:50 until 11:40. Both sections of ED 100 participated in service-learning on Tuesday afternoons from 12:30 until 2:30.

The content for the “Introduction to Education” course included an overview of seven topics that were grouped into three categories. The first category was The Child in Context which included the following topics: contemporary children; school organization and leadership; and collaboration with the community. The second category was Core Pedagogical Knowledge which included the history and philosophy of education and

learning theory. The final category was Practical Application and it included the topics classroom environment and curriculum and instruction (Appendix F).

Each week majors read about the topic of the week and created a topic information organizer on the text information. They came to class and participated in group discussions on that topic during the first class session of the week. After that they participated in their service-learning experiences at the elementary school. Majors then attended the second class session of the week where they synthesized the topic and their service-learning experiences and presented their perspective during a whole class discussion on the topic of the week. Throughout the discussion, the course content was integrated with service-learning experiences. Topics that came up under The Child in Context were urban, rural and suburban schools. Majors read about them, talked in small groups about them, went to Granger and then came back to the next class and talked about how most of them grew up in suburban schools and Granger fit the urban school profile. More data on this is presented in the Analysis chapter.

After these two class sessions and the service-learning experience, majors wrote a weekly reflection pertaining to a course topic or concept and experiences of the week. The reflection questions were the same each week: 1) What happened today? What did I do?; 2) How did my service today make me feel?; 3) What relationships am I building?; and 4) How does what I am observing/doing at my placement related to the concepts and ideas we are currently learning in class (be specific)? (Appendix D). After each service-learning experience majors filled out a Field Form (Appendix C). This was more or less a brief record of who, what, where, and when of the service-learning experience. Both

Reflections and Field Forms are further explained in more detail in the data sources section of this chapter

After the three topics of the Child in Context were covered, a class session was chosen for the majors to create an Inspiration software designed concept organizer based on the content, service-learning experience and reflections of the Child in Context. The majors created similar in-class concept organizers for Core Pedagogical Knowledge and Practical Application.

Other course assignments that were also used as data for this study included Mid-term and final reflections for both “Introduction to Education” and “Learning Theory” courses. These are detailed in a following section describing data sources.

Although I didn’t make my orientation toward service-learning explicit to the students, it would be most like those early pioneers (Stanton et al., 1999) who claimed a relationship between democracy and education and asked the question, What is the purpose of education in a democracy? For this group, democratic participation identified the role of education as fostering a more engaged, effective citizenry. Rather than being a discrete type of program, service-learning appeared to be an approach to experiential learning. The early practitioners of service-learning were pedagogically situated within the field of experiential education. They wanted to connect students’ experiences to reflection and analysis in the curriculum. As time went on, I realized my own philosophy of service-learning pulled from this democratic perspective, but also became integrated with the education perspective of those early pioneers who asked how education could serve society. Service-learning was viewed as the avenue through which education could serve social needs. I saw service-learning as an opportunity to build community with

individuals in surrounding neighborhoods. I explained to the majors that the people at Granger school were our neighbors and we had to take care of each other. In the process of serving they would learn more about teaching and learning.

Service-learning experience for majors began Tuesday, October 8th, but there was a seminar for all ED 100 students on Tuesday afternoon, October 1st, on campus. A PowerPoint presentation was used to share information on service-learning. Majors had a worksheet to fill in as the power point presentation progressed. It began with a definition for service-learning as identified by Learning In Deed, “A teaching method that combines meaningful service to the community with curriculum based learning. Students improve their skills by applying what they learned in school to the real world; they then reflect in their experiences to reinforce the link between their service and their learning.” After a discussion on this definition, the philosophy and theory underlying service-learning was introduced. Dewey and his focus on learning through experience by doing, Aristotle and his ideas of inductive and deductive reasoning, and Piaget & Vygotsky and their active construction of knowledge were presented through the PowerPoint presentation and demonstration. Reciprocity or the win-win situation for both the college majors and the elementary school was discussed. Finally, the 4 steps of service-learning (PARE) as identified by the Maryland Student Service Alliance were analyzed: Preparation, Action, Reflection, and Evaluation. Majors were then given three scenarios and asked to work in groups and ascertain whether or not each scenario was true service-learning according to the PARE criteria. A discussion of their assessment followed the group work.

Service-Learning Description

For both the regular and the cascading groups, service-learning placements were in the local, urban gym class on Tuesday afternoons. From 12:30 to 1:45, the cascading model group of sixteen majors worked on planning for a gym class. They decided on taping an exercise video with fifth grade students in their gym class. From 1:45 until 2:30 the cascading majors taught the gym class exercises and then recorded an exercise video with them. When it was complete, the fifth grade, with the help of the exercise video, taught the exercises to the second grade. The video has been used for other gym classes. This video service-learning project met the school need because exercising was part of the fifth grade healthy lifestyle physical education curriculum.

On October 8th, I covered the gym teacher's class while he talked with the regular model group of majors and then again when he talked with the cascading group of majors. This allowed the gym teacher time to get to know the Rowan students and share his expectations with them.

The regular model group assisted the gym teacher with the kindergarten class during their gym time, and then worked on researching and designing a "Healthy Lifestyles" binder containing multicultural gym activities. Toward the middle of the semester, the majors also assisted the kindergartners during class time in the kindergarten classroom.

ED 300 Learning Theory Spring 2003

All six study participants attended ED 300, *Learning Theory*, in the Spring of 2003. One participant from the regular service-learning group was in ED 300.01 with class on Mondays from 12:00 noon until 1:50 in the afternoon. Service-learning

experience for this group was Wednesday afternoons from 12:30 until 2:30. The other five participants, two from the regular group and three from the cascading group, were in ED 300.02 with class meeting Tuesday afternoons from 12:15 until 2:05. Service-learning for this group was Thursday afternoons from 12:30 until 2:30.

The content for the *Learning Theory* course was divided into two parts: learning theories and topics. The course was designed to delve into learning theories first and then talk about real world connections to those theories. After all the theories were covered, topics related to practical, everyday classroom life were explored and they were connected back to the different theories.

The discussion on learning theories began with a brief overview of the general philosophical perspectives of Idealism, Realism, Pragmatism, and Existentialism with the idea that theories are conceived and developed from a basic belief system or philosophy. This was followed by a more in-depth look at Behaviorism, Social Learning Theory, Piaget's Theory, Vygotsky's Theory, Information Processing Theory, and Contemporary Thought on Constructivism and Brain-Based Learning (Appendix G). Majors read their text and designed information organizers for each of the learning theories introduced in this course. They came to class and participated in group discussions on that week's theory and presented their perspective during a whole class discussion on the theory. Course content was integrated with service-learning experiences and became a part of the whole class discussions. Under operant conditioning majors read about punishment and rewards. They discussed this in small groups, saw examples at Granger and then came back to class and participated in a discussion that debated the benefits/pitfalls of both.

After the class session and the service-learning experience, majors wrote a weekly reflection pertaining to the theory and service-learning experiences of the week just as they did for the “Introduction to Education” course (Appendix D).

After all the theories were covered, the practical topics, Intelligence and Creativity, Ignatian Pedagogy, Motivation, Classroom Management, Multiculturalism, and Instructional Objectives, were each chosen by six groups of students, one topic per group. Each group was responsible for researching, planning and teaching the rest of the class about their topic. While the group was teaching a lesson on their topic, the rest of the class took notes on a special form where they noted connections between topics and theories. After the lesson was finished, there was a whole class discussion of these learning theory connections that were noted during the lesson, thereby relating the topics back to the learning theories.

Service-Learning Description

In order to review service-learning and its main principles before majors went to their first service-learning experience for the second semester, a special class session was scheduled on campus for the last week in January during their service-learning time. Again, I emphasized that the people at Granger school were our neighbors and we had to take care of each other. In both the Wednesday and Thursday sections, as they entered the room, majors were given a word or phrase related to service-learning on a half sheet of paper. When the whole class was present, each major was invited, one at a time, to tape their word/phrase up on the board in a position that made sense and created an information organizer on service-learning. The words they placed were: Dewey, Aristotle, Piaget, Constructivism, meaningful service, reciprocity, college, community,

preparation, action, reflection, evaluation, collaboration, direct, indirect, advocacy, course content, link, community need, and service-learning. This initiated a discussion about which concepts connected where and how. There was some rearranging and creative designs, but eventually the finished design concurred with the general overview of service-learning as presented and discussed during the first semester.

Also, during this session students were given the opportunity to indicate their first, second, and third choices for placement in the elementary school. Each section had five choices from which to pick. The one (regular) participant in the first section on Wednesday was assigned to a fifth grade math class where she planned and prepared to teach a math lesson to a small group of fifth graders every week. Two (regular) participants in the second section on Thursday were assigned to a different fifth grade math class. They assisted the students with the day's math activities. The three (cascading) participants in the second section on Thursdays were assigned to a second grade class. They conducted science, math, and geography activities and assisted students with their writing.

After each service-learning experience majors filled out a Service-Learning Field Form (Appendix C) just as they did for the "Introduction to Education" course.

Data Sources

This section presents the different data sources that were used in this study. While a few data sources were discussed in detail in the previous section, others are described here. The data sources used in the study were:

1. Interviews
2. Introduction to Education Weekly Field Forms and Reflections

3. Learning Theory Weekly Field Forms and Reflections
4. Introduction to Education Initial (a) and Final (b) Questionnaires
5. Learning Theory Initial (a) and Final (b) Questionnaires
6. Introduction to Education Midterm
7. Introduction to Education Final Reflection
8. Learning Theory Midterm
9. Learning Theory Final Reflection
10. Introduction to Education Concept Organizers
11. Learning Theory Concept Organizers

Sources are explained in the following discussion. A summary of each research question and its related data sources is offered in Table 6.

Bogdan and Bicklin (1998) warn against the use of the word triangulation because it is over used and has many meanings. For this study, triangulation of data is an attempt to accurately capture the sense that participants make of their service-learning experiences by collecting data from a number of sources. As stated earlier, these sources include questionnaires, interviews, field forms, reflection journals, mid-terms, final reflections and class assignments.

Table 6.
Questions and Related Data Sources

| Questions | Data Sources | Where | When |
|--|--------------------|---------------------------------------|--|
| What sense do freshmen elementary education majors make of their service-learning experience in their teacher education courses? | Interviews | Appendix A | Pre, during & post course (Appendix B) |
| | Field Forms | Appendix C | After every experience |
| | Reflections | Appendix | At end of the week |
| | Questionnaires | Appendix E | Beginning and end of each semester |
| | Mid-terms | Explained above in data sources | At mid point of the semester |
| | Final Reflections | Explained above in course description | Last day of class |
| | Concept Organizers | Explained above in course description | Three times during the semester |
| What sense do freshman elementary education majors make of their service-learning experiences in the projects they conducted in the elementary school? | Interviews | Appendix A | Pre, during & post course (Appendix B) |
| | Field Forms | Appendix C | After every experience |
| | Reflections | Appendix | At end of the week |
| | Questionnaires | Appendix E | Beginning and end of each semester |

Interviews

The six participants were interviewed six times during the two courses, Introduction to Education in the Fall of 2002 and Learning Theory in the Spring of 2003. They were interviewed in the beginning, after the mid-term, and at the end of the courses. See Appendix B for the schedule. These interviews were the only data gathering activities that were above and beyond the usual classroom routine.

The partially structured interviews were conducted by a graduate student who was employed by the Rowan College Education Department and practiced in the art and procedures of interviewing. Fontana and Frey (1994) describe interviews as either

structured or unstructured. According to them, an unstructured interview is used “in an attempt to understand the complex behavior of members of society without imposing any a priori categorizations (as in the structured interview) that may limit the field of inquiry” (p. 366). While this approach seems applicable to this situation, Krathwohl (1998) narrows the focus on the concept a little further with his description of a partially structured interview, “questions are formulated but order is up to interviewer. Interviewer may add questions or modify them as deemed appropriate. Questions are open-ended, and responses are recorded nearly verbatim, possibly taped” (p. 287). Adopting Krathwohl’s refinement, this graduate student followed the protocols described in the Student Interview Protocols (Appendix A). These interviews were recorded, transcribed and reviewed to ensure that answers were not skewed or prompted.

Weekly Reflection Journal

The Weekly Reflection Journal (Appendix D), was used by all the majors in the “Introduction to Education” and “Learning Theory” courses. The purpose for including these journals as a course assignment, and subsequently as data for this study, is twofold. The first results from the realization that reflection serves as a means for connecting the service-learning experience with the course content. Astin et al. (2000) in their longitudinal study found that reflection was a powerful means for connecting the service experience to the academic course material. The primary forms of reflection that enhanced this connection, they explained, included discussions among students, discussions with professors, and written reflections in the form of journals and papers.

The second purpose focused more on teacher reflection. While these majors were not yet teachers, it was the goal of the Education Department at Rowan College to assist

these future teachers in the development of a disposition for reflective teaching. Some of the questions that guided their weekly reflections focused on what Schon (1983) refers to as their “reflection-on-action” where they reflect both before the experience on what will happen and after the experience on what happened. Knowing the questions prior to having to answer them on a weekly basis was meant to assist majors in establishing a framework upon which they could reflect during their experiences or as Schon (1983) explains, “reflection-in-action”. Other questions take on a larger context than Schon’s (1983) individual focus inward to reflection on and within the social context of experiences. Zeichner and Liston (1996) explain that “teachers should be encouraged to focus both internally on their own practices, and externally on the social conditions of their practice, and that their action plans for change should involve efforts to improve both individual practice and their situations” (p. 19). While these majors were not yet teachers, answering the questions in the Weekly Reflection Journal assisted them in establishing a practice for habitual, internal and external reflection.

Service-Learning Field Forms

The Service-Learning Field Form (Appendix C) was an instrument that had been used for the prior three years and was used by majors on a weekly basis for keeping an account of their service-learning experiences in the elementary school. It was more of a description of what they did, when they did it, who they worked with and what their concerns might be at the time. Majors were encouraged to fill out this form as soon as possible after the service-learning experience in order to have an accurate account of their experiences. This form was used by all the majors in the “Introduction to Education” and “Learning Theory” courses because they all participated in service-learning experiences.

Questionnaires

All majors enrolled in ED 100, “Introduction to Education” in the Fall of 2002, and ED 300, “Learning Theory” in the Spring of 2003 filled out an initial and final questionnaire (Appendix E). These questionnaires were a routine activity for these courses. Some questions were added and others modified for this study. Majors were asked to place a code in the upper left hand line so that initial and final questionnaires could be matched for identification. (Code = their age, the number of siblings they had, the first four letters of the car they drove most frequently, and the first initial of their mother’s maiden name). Once participants were chosen from their responses I listed the codes on the board and asked the corresponding students to please let me know if one of the codes was theirs. This way their particular questionnaire identities remained anonymous until the end of the course.

The initial questionnaires were completed in class prior to majors’ participation in service-learning experiences. The final questionnaires were completed on the last day of class after the final service-learning experience for the semester. I explained to the majors that I would not look at the questionnaires until the grades were completed and on record and that is what I did.

The participants for this study were selected from the answers they provided for the initial questionnaire in the Fall 2002 “Introduction to Education” course as described in the participants section of this chapter. After participants were selected, the first and last sections of their initial and final questionnaires were used as a source of data for this interpretive study because these were open ended questions. The other questions were closed-form, or selected-response or forced-choice (Wiersma, 1991) and were not

included in this study. The closed-form items require either a Likert scale or multiple choice response (McMillan, 2000).

Mid-Terms

A midterm reflection question was given at the middle of the semester for both classes. The “Introduction to Education” question was, “How have service-learning and information organizers impacted your learning about the Child in Context?” The question for Learning Theory was “How has service-learning, through your efforts to meet a school-defined need, impacted your learning of learning theories?” Majors were given about fifteen minutes at the beginning of class to answer these questions.

Final Reflections

The final reflection task was, “As an elementary classroom teacher, design a service-learning activity for your class. Include: the grade level, a description of the activity, the need you want to address, action steps designed to meet that need, and how different subject areas will be involved.”

The Concept organizers were described previously in the Course Description of this section. I stored the data in files in the filing cabinets in my office at Rowan College. There were different colored files holding data from each participant.

The sources that were introduced as data to be collected for this study but were not used are the Classroom Observation Protocol, the Instructor’s Journal, and the Weekly Anonymous Questions. The Weekly Anonymous Question forms were optional and distributed in class with the request for students participating in the study to mark the forms so that they could be used as data for this study. No form submitted was ever

marked and all responses dwindled down to zero use by all students. The Classroom Observation Protocol was filled out a few times and then I realized that they did not offer any data that could be used for this study. By the time two back to back classes were taught, the details from one got interwoven with the details of the other and I could not make any pertinent contribution to the data with what was remembered. The Instructor's Journal presented a dilemma for me. If I tried to concentrate enough on study participants and what they were doing and saying in class, I could not effectively conduct the class. My memory would not hold particular details as to who said what, when. I might remember that Deb said something significant during class, but I couldn't remember what. If I tried to make a note of these observations during class, I interrupted the flow of the course. It became a choice between teacher and researcher and during class, respectful of my students, I focused on being the teacher and the researcher's journal was not written.

Data Analysis

Data collected through interviews, field forms, weekly reflections, mid-terms, final reflections, questionnaire open questions, and class assignments were analyzed using a grounded theory methodology. This is an inductive process that analyzes data from the ground up. Data are read and concepts are identified by a code that is placed in the margin. This open coding process can be carried out in three ways according to Strauss and Corbin (1998). Line-by-line analysis can be phrase-by-phrase or sometimes even word-by-word with the concept resulting from the analysis being identified and then represented by a code written in the margin. Whole line or paragraph analysis might result in a concept that represents the idea presented in the whole line or paragraph. This

concept can also be identified by a code and written in the margin.

A concept, according to Strauss and Corbin (1998) is a labeled phenomenon, the “abstract representation of an event, object, or action/interaction that a researcher identifies as being significant in the data” (p. 103). They explain that the purpose behind naming a concept is to enable the researcher to group similar concepts into a category or classification. Grouping concepts into categories assists the researcher in dealing with large amounts of data and also helps the researcher make sense of the information as connections are made and patterns identified among concepts.

Categories are then systematically developed and linked with other categories in the axial coding process as described by Strauss and Corbin (1998). Major categories are finally integrated and refined into a larger scheme or theory through selective coding. “Integration is an ongoing process that occurs over time...an interaction between the analyst and the data” (Strauss and Corbin, 1998, p. 144).

In a similar description of data analysis, Erickson (1986) explains that it is important to search your data for disconfirming and confirming evidence. “A deliberate search for disconfirming evidence is essential to the process of inquiry” (Erickson, 1986, p. 147). Analysis of discrepant cases found as disconfirming evidence can allow the researcher to rethink and possibly reframe their scheme or theory. Patton (1990) confirms this as he discusses what he calls negative cases. He explains that where patterns (connections) and trends have been identified, our understanding of these patterns and trends is increased by reflecting upon the cases that do not fit within the pattern. “These may be the exceptions that prove the rule. They may also broaden the ‘rule,’ change the ‘rule,’ or cast doubt on the ‘rule’ altogether” (Patton, 1990, p. 463).

For this study, I read all the documents during both semesters because they were course assignments. In order to narrow my focus to the perspectives of just the six majors, I read the interviews at the conclusion of the second course. I then synthesized the content of the interviews into words and phrases. These synthesized words and phrases were typed into a chronological matrix for each major with coded references to where they could be found in the data and an asterisk was placed next to possible quotes. I then took an eight month break from the data for various reasons.

Coming back to the data, I felt like I had a fresh start because I was no longer burdened by the data of the other 68 majors in the two courses at the forefront of my thoughts. I started back through the data on the six participants as I read through and coded the data from the first participant. I then went back and copied the idea represented by each code on a small sticky note. Under the idea on the sticky note I wrote a numeric/letter code that identified the locations of that idea within the participant's data. (For example: for Cindi, under the word "urban schools" I had 2-1, 2-3, 6, and 10a. 2-1 referred to Data Source 2, ED 100 field forms and reflections and 1 referred to the first day of service-learning, October 8, 2002. 2-3 referred to ED 100 field forms and reflections for the third experience, October 22, 2002. The 6 referred to the ED 100 mid-term and 10a referred to the ED 100 concept organizers while the a indicated that it was the first concept organizer for the Child in Context.

I continued until I had all the ideas (codes) and reference points on the sticky notes. I attempted to tentatively group possible connected ideas near each other as I placed the sticky notes on the board. When I finished with the first participant's data, sticky notes covered about a fifteen by twelve inch board. I continued coding and

referencing the data of the other five participants in the same way with a different colored sticky note for each participant: Tammy-yellow; Mary-pink; Cindi-blue; Nina-purple; Julie-green; and Deb-orange. With squeezing here and there, sticky notes covered about the same size board for each participant. I coded all the data from the three participants in the regular model of service-learning first and then I coded the three cascading model participants' data after that.

I sat down with all six participants' boards of sticky notes and started to look for similarities, links and connections. I went through one participant's data board at a time and physically stuck together the sticky notes that seemed related to each other (e.g., I grouped together 4 sticky notes from Cindi titled: urban schools, racial role model, students' background, and open to difference). I stuck them together and then placed them on a large board (science-fair display type). When I moved on to other participants I found similar ideas written on sticky notes (Mary had "different background", "stereotypes", "minority", etc.) so I attached them to the same large cardboard next to the original posting of "urban schools", for example, from the first participant, Cindi. I continued to connect and post each idea that emerged from the data on the large cardboard. When I finished all participants, there were a few single sticky notes left on each participant's board that did not seem to be connected anywhere so they were set aside – with the thought to check back through them as I wrote up the analysis in case there were some connections that emerged later.

When complete, the large board had 11 sections where different colored sticky notes were grouped together. I read through the sticky notes in each group and attempted to create an inclusive category for each group. The categories that emerged were:

cascade, collaborate, community, connect, course content, make a difference, meet needs, plan/work together, reflect, urban schools/different background, and 2-way. I wrote these individual sticky notes of a different color and played with them, grouping and regrouping them in an attempt to make sense of them.

After much juggling I came up with four main categories with the other categories as subsets of the main four. Collaboration happened as majors engaged in a reciprocal relationship while making connections within a diverse context. Collaboration, Reciprocity, Connections, and Diversity were the four main categories. Under Collaboration were collaborate, community, plan/work together and make a difference. Under Reciprocity were meet a need and 2-way, while under Connections were cascade, connect, course content, and reflect. Finally, under Diversity were urban schools and different background.

Now that I had the categories identified and sorted, I had to make sense of them. I started with Collaboration and pulled all the sticky notes that had been sorted under collaboration. Using the identification codes on each sticky note, I went back to each data entry for each participant and marked that quote with smaller (red) sticky notes. All the quotes from all the participants had a small red (for collaboration) sticky note hanging off the page along the right edge at the point in the data where the exact quote was. I then went back through each participant's data and typed up (or cut and pasted) each red sticky marked quote. Each quote had their identification code at the end of the quote (e.g., Cindi, 10a).

After printing them out, I cut out each quote and proceeded to arrange and rearrange and group them and even, at times, I would sketch out ideas in a graphic

organizer until they told a story. At this point I sat down and started to type up that story inserting quotes where appropriate. This became my analysis for the Collaboration data entries. I then reflected on the analysis that I had just developed in an attempt to make sense of the data. The meaning that I constructed from this synthesis process was typed up after the analysis section. After analyzing and synthesizing the Collaboration data in this way I identified the generalization as the theme of the Collaboration data and presented it in the conclusion of that section. I continued using the same process for the remaining categories. The Reciprocal category had small pink sticky notes, connections had yellow and diversity had purple. The data, when stacked had a sprinkling of colors protruding up and down the right hand side of the pages marking all the quotes in the different category colors.

Conceptually, I saw this data processing as involving an analysis *and* a synthesis process. The analysis involved breaking down the data into individual entries (by codes) and organizing them within the context of my thinking on a particular category. I then looked at all the pieces and tried to draw meaning from them. I considered this pulling back together to be a synthesis process. Once the data were broken down, organized and examined, I pulled them back together to derive meaning. The analysis presented in the following chapter somewhat follows this process. I present what I call the analysis first with the data entries woven throughout my vision of the context. Then I offer a synthesis, or meaning for the data within my perspective of its context. Someone else looking at the same data might envision a different context for the data resulting in a different synthesis and meaning. After presenting the analysis and synthesis, I bring each section to a conclusion and within that conclusion propose an inductively derived theme for the entire

section. Unlike other documents that might identify the theme first and follow it with the supporting analysis, I have chosen to bring the reader on my inductive journey of data analysis and synthesis.

The four main categories that emerged from the data and are presented as sections in the following chapter are collaboration, reciprocity, connections and diversity. Each of these sections is broken down into subsections and provided with headings using simple terms of what they are (e.g., Collaboration with Peers and Synthesis: Collaboration With Peers) as are the titles of each chapter. While I thrive on creativity and was tempted to name each section with a creative flair, I have chosen the simple, obvious title/heading in order to maintain a sense of clarity and organization.

Chapter 4: Analysis

Utilizing the inductive approach for data analysis as described in the previous chapter, four categories emerged from the data: collaboration, reciprocity, connections and diversity. The analysis of each section will be followed by the synthesis as the discussion begins with collaboration and proceeds through reciprocity, connections and diversity.

Collaboration

All six majors discussed issues related to collaboration in service-learning, but they made a clear distinction between collaboration with college peers and with the community. While collaboration with the community is essential to an authentic service-learning project, collaboration with peers seemed also to be important and was addressed by some of the majors. In the discussion below, focus on collaboration with college peers comes first, followed by collaboration with the community. For both of these discussions, the regular majors' perspective precedes the presentation of the cascading majors' perspective.

Collaboration with Peers

While collaboration with peers was not a major concept included in the curriculum of the "Introduction to Education" course, it was a topic that often came up in class discussions and was addressed by some of the majors. While all three cascading majors talked about collaboration with peers, only Mary from the regular model addressed this issue.

Regular model.

Mary seemed to value the walk to and from the school with the other majors, “On the way back from the school, the other Rowan students and I discussed some of the problems that we experienced at the school. We collaborated [on] some different ideas on how to help these students” (Mary, 2-8). Becoming more specific she focused on the walk to and home from the elementary school and the reflection process that was facilitated by collaboration. She explained that on their walk to the school she and the girls she was working with would discuss the lesson plans for the day. Once they got to the school they would work with the kindergarten kids on either their math or reading, like letter and number recognition. After that, she explained that the majors would come together again and collaborate to make sure that everyone knew what was going to happen and what they were supposed to do for gym class. When they got to the gym:

The kids would come in, we would do our best to get them to calm down. And then we would just go through our regular routine. Someone would take us through the lesson for the day and the rest of us would just sort of help and then after that, inevitably on the way back everyone would have something to say about what went wrong that day, what was great, Suzie Q had a problem with this, such and such. So, for me the walk home was always the best. That was when we were able to look back and see what works, what doesn't work. So, after that, once we would sort of reflect together we would have to sort of go back and we would document what we did that day. And sort of look personally at how we did in that environment and would talk about our feelings about what was going on at the time. (Mary, 1-7-4)

Collaborating on problem solving and what and how to teach seemed to be valuable to Mary in those walks to and from the elementary school.

There was another aspect of collaboration that seemed to trouble Mary. In the first semester, the regular majors were responsible for planning and teaching gym classes. Since they had an hour or so of non-teaching time after they taught the gym class for the

kindergarten students, they decided to compile a binder of multicultural gym activities and lessons for the gym teacher. Mary did not seem as enthused about collaboration when considering this aspect of her service-learning project. She said the biggest challenge for her was working with the other Rowan students because she believed that she was much better at working individually and not that good with group collaboration. It would be easier if she was working by herself because then she could push ahead or hold back as needed, “but finally our group got it all together, sort of working individually and sort of working together and we found that was the best happy medium and I am glad we are done with that” (Mary, 1-4-7). A plan was designed where each major in the group would provide a set of lessons or activities for the binder so Mary seemed willing to give this aspect of collaboration a try. When the time came to compile the binder, Mary returned to her original perspective on collaboration. She again explained that the most difficult thing for her was working with the other Rowan students:

I always work individually and I got to the point where we were able to collaborate for the binder and we all put in ideas and when it came time to hand in the binder, more than half the group didn't have anything. They didn't have one activity whatsoever. So, the other half of us just said how we had trusted them to come up with something and we handed in the binder and it was a little shabby. A little small. So, I felt like I had made such progress and could collaborate with people and then that was such a let down. So, I'm back to being individually goal oriented. (Mary, 1-8-7)

After some time and thought, Mary seemed to reach a compromise and a way to possibly avoid the troubling issues in the future,

In one way, those girls let me down, but the other half of the bunch did their part. And so, I am not completely turned off to collaborating with people. They did a great job and...I think that if we had set more goals along the way instead of one final finished goal it would have been less of a shock that people didn't do things and it would have kept everyone more on task and we could all see the projects that each of us were making individually so that when we got together in a group we would be able to see what we actually accomplished together. (Mary, 1-9-7)

Cascading model.

Considering the nature of the cascading model, it might make sense that the three majors participating in this model would address some aspect of collaboration with peers since this model involved the majors collaborating with each other to plan a service-learning project that involved planning with the students. They had to all be on the same page and in agreement on how to proceed if they wanted to work productively with the elementary students. The majors in this group had about an hour before each fifth grade gym class where they chose, planned, implemented and evaluated their service-learning project, an exercise video:

...we plan as a class and we go down and sit in the planning room and work out ideas and usually one or a couple of people take over and organize things and we listen to everyone's ideas and blend them together and so we can work with the kids then we go out into the gym and we exercise those ideas that we planned and it doesn't always go as planned. (Julie, 1-3-4)

Planning time seemed to be the focus of their comments on collaboration with peers. Deb felt that their planning time was productive as they figured out what their service-learning project was going to be. "We decided to do a work out video with the kids working the arms, legs, abs, and cardio. Each week we are going to break up into our groups and teach them one or more areas and tape them working out" (Deb, 2-3). The third week in the school the gym class was cancelled because the elementary students were going to an assembly so the majors took that time to plan. "Instead we spent over an hour planning and came up with the idea that we could do a video journal that the 5th graders could share with other classes. I felt relieved and excited that we have a plan and I think the kids will be excited" (Julie, 2-3). Deb talked about the specific tasks accomplished during one planning session toward the end of the semester, how majors focused on getting good

footage for the video. She explained their preparation time “...we were making poster boards for the intro, designing the fronts of the t-shirts for the groups to have on in the video, as well as set up a layout for how the taping will occur. It really was our most productive prep time we ever had” (Deb, 2-9).

On any given service-learning day, there were about 20 majors participating in the planning sessions prior to gym class itself. The number of majors seemed to be a challenge for Julie, but a bonus for Nina. At the beginning of the semester Julie seemed to accept compromise for the good of the students:

I guess personally I learned that it can be hard to have so many people with so many different ideas that we have to compromise and listen to the ideas. It benefits the students more and I learned that this class is supposed to be not known as the best kids and I was a little nervous but once we gave them a chance and worked with them, they are so good and I was so happy to see that. (Julie, 1-3-5)

Near the end of the semester Julie admitted to compromising again, but her message was confusing because she talked about handing over the leadership to those who know more about video, but she admits that she just kept her ideas to herself when she really wanted to be the leader:

I think it's been hard working with so many people with so many ideas and then finally letting some people not take control but lead because you couldn't have twenty people leading. Well, in the beginning I always wanted to be the leader and say everything but then I let other people take over because they knew more about videotaping or had more ideas. So I kept my ideas in but I tried to be more flexible. (Julie, 1-7-8)

Nina, on the other hand, seemed to embrace the collaboration of 20 or so majors as a bonus. She also addressed collaboration with the community:

One of the most essential parts of our service-learning is the planning stage that occurs prior to class. I have actively taken part in decision making for the classes and I have really enjoyed it. I like the collaboration of all the class adding ideas and input for the final project. Last class, for example, Jenna suggested that we

change the kids' service project to an exercise video. That is an awesome idea. I don't think that I would have thought of that idea alone. However, with all of us working together, we molded and shaped the idea until it reached a level where we were all excited and eager to get going on the project. One of the three main aspects of child in context, which we have discussed thus far, is collaboration. (Nina,6)

Synthesis: Collaboration with Peers

This synthesis of collaboration with peers is offered in this order: regular model, cascading model, and finally, a summary of the two models.

Regular model.

Mary, the only regular major to address collaboration with peers, offers a dual perspective on this concept. She claimed informal collaboration with peers on the walk back to campus was the best, but then states that collaboration with peers on compiling the binder of lessons offered the biggest challenge and the most difficulty. Looking further, it seems that Mary really valued other majors' perspectives and input when the majors were walking to and from the school. On the way down to the elementary school they discussed what they were going to do so that everyone knew what would be happening during the class. On the walk back to campus the majors, according to Mary, discussed what had happened during the physical education class they had conducted for the kindergartners. They assessed what went right and what went wrong. They talked out problems and possible solutions and what they were going to do next week. As Mary offered, they "reflected together." Mary seemed to appreciate this because she went on to explain that after they had reflected together on the days' events, she would go back and write up her own individual reflection. It was almost as if she wanted different perspectives on the experiences so that when she reflected and then wrote her own

perspective she might be able to situate it within a larger context having contemplated the other perspectives in relation to her own.

For Mary, we go from the best to the most challenging aspect of collaborating with peers. Mary, herself, admits that she did not like collaborating on the binder project, but the majors met and worked out how they were going to compile a binder of lessons so she was willing to give it a chance. When the end of the semester arrived and half of the majors did not produce their agreed upon lessons, Mary admitted she was soured on collaboration again. After some time and thought, though, she gave credit to those who did meet their responsibilities and made suggestions that might have helped with those who did not.

Mary seemed to appreciate the diverse perspectives offered in the group reflection as the majors walked back to campus from the elementary school. This group reflection seemed to help her analyze and compose her thoughts so that she could write her own individual reflection. It seems that Mary might value collaboration for contemplating different perspectives, but she doesn't seem to appreciate collaboration if it is needed to produce a class assignment product. Collaborating to facilitate thinking is acceptable, but collaborating to produce a product is not as appreciated. Mary might have been burned in the past by collaborating for a class assignment or grade so she is less willing to participate in such collaboration. This was reinforced for her when some of the majors did not fulfill their responsibilities and failed to produce lessons for the binder. She reconsidered and did not totally lose faith in the type of collaboration required for some class assignments.

Considering the previous discussion, Mary might view service-learning experiences as providing her the opportunity to collaborate with peers and gain different perspectives on teaching. She also might offer that the service-learning project of producing a collaborative binder had reinforced her theory she did not like to collaborate with peers on a class assignment. Service-learning allowed Mary the opportunity to gain diverse perspectives and to test her theory on collaboration.

Cascading model.

All three of the cascading majors addressed collaboration with peers. The collaboration they referred to occurred during the planning time when all the cascading majors came together prior to the beginning of the fifth grade gym class. While each major offered a unique focus on this peer collaboration, they all shared the perspective that many people were involved in making decisions for their service-learning project. While Julie stated that they planned as a class where they listened to everyone's ideas and blended them together, Deb talked about productive planning time where they figured out what they were going to do and how, and Nina referred to the collaboration of all as they worked together to mold and shape their project. It comes through clearly that all three majors noted that everyone was involved in the planning process. Deb assessed the planning time as productive, Nina stated that the planning time was essential and Julie stated that so many people with different ideas required listening and compromising that in the long run would benefit the students more. The common element for all three is the recognition of the collaboration of all majors during the planning time to design and implement their service-learning project.

While all three recognized the collaboration effort, each seemed to view the process from a different perspective. Deb talked about the productive planning time, but focused on the planning of the practical details of the project by sharing the parts of the body to be exercised in the video, how groups were to be used, and how time was used for posters and t-shirts. These details seemed to focus on the results of the planning, what happened or was produced because the majors had collaborated together.

Nina seemed to enjoy the planning process because she saw collaboration as an opportunity to hear other perspectives which resulted in someone suggesting a project (the exercise video) that was a good idea, but she admitted that she would not have come up with this idea on her own. She almost suggested a type of synergy where ideas were offered and contemplated and the group made a more informed choice based on the different perspectives that were offered. She admits to enjoying being involved in this decision-making process. Nina's perspective seems focused on the synergy of the collaboration – the energy derived from many working together to accomplish a chosen goal.

With a bit of a different perspective, Julie's approach seemed to focus on leadership – who was in control. At the beginning of the semester she described the service-learning planning time as the class coming together to listen and blend ideas, but different from the other majors, she focuses on the emerging leadership, “usually one or a couple of people take over and organize things” (Julie, 1-3-4). At that point she did not identify who those leaders were. By the end of the semester she admits that it was hard working with so many people and so many ideas. The subject of leadership came up again when she suggested that the majors who knew more about videotaping took the

lead because all twenty people can not be the leaders. How she stated this was interesting because she first referred to these video-knowledgeable leaders as taking control, but then changed the term to lead. I had cause to question her wording and if she really saw these emerging leaders as controlling. Her final sentences might lean the argument more toward controlling because, while she admitted that she liked to be the leader and she let the others take over because they were more knowledgeable, she finished by adding that she just kept her ideas in and tried to be more flexible. If the leaders had been more open and not controlling would she have had to make that statement? If she kept her ideas to herself, would that indicate to me that she had a reason not to share? Could it be that she perceived that her ideas would not be listened to or accepted by those in charge? It almost seems as if she is battling within herself: she wanted to be a leader, but she recognized that there are those who were more knowledgeable on the subject of videotaping who should lead. She also had ideas, but those leading (possibly controlling) might not want to hear or accept her ideas, so she remains silent. Finally she almost consoles herself and finishes on the side of acceptance by admitting that she tried to be more flexible. For Julie, collaboration with peers seemed to bring about an internal struggle about the nature of leadership and her role in the collaboration process.

These three cascading majors, while recognizing that collaboration with peers was included in the planning process of a service-learning project, each had a different perspective on this experience. For Deb, service-learning provided her with the opportunity to collaborate with peers and develop a project that would produce desired results. For Nina, service-learning provided an opportunity to collaborate with peers and appreciate the synergy that comes from listening to and combining different perspectives

to produce a desired result. Service-learning, for Julie, provided collaboration with peers that seemed to create an opportunity for her to look within herself and attempt to come to terms with her perspective on leadership, control, and flexibility.

Summary of regular & cascading models.

For all four majors discussed above, service-learning provided them with opportunities to collaborate with peers, each bringing something different away from their experiences. Mary, the only regular major to address this concept, seemed to value the diverse perspectives she gained from other majors as they “reflected together.” This assisted her in her personal reflection as she worked to understanding her service-learning experiences because she was able to situate her perspective within a larger, more complex context. From a different view, her service-learning experiences allowed her to test her theory that she did not like to collaborate with others when a class assignment was at stake. While she noted that some collaborators may not meet their responsibilities with the assignment, she did recognize that others came through and did not let her down. Collaboration with peers seemed to allow her to appreciate diverse perspectives while also testing her theory on collaboration. Service-learning was an experience upon which Mary was able to both appreciate the value of and question the context for collaborating with peers.

While Mary focused on collaborating after experiences and collaborating to produce a product, Deb, Nina, and Julie, the cascading majors, seemed to recognize the value of collaborating with peers in order to plan a service-learning project. For Deb, specific results were attained because of productive planning during collaboration. For Nina, synergy developed from sharing, molding and shaping different perspectives. Julie,

through collaboration, was allowed the opportunity to confront her own internal perspective on leadership and control. Unlike Mary, planning by collaborating with peers seemed almost essential to the cascading majors. Mary appreciated hearing the different perspectives, but they were not essential to the completion of the service-learning project – to provide a gym class for kindergartners. When considering the binder, it was important, but not necessarily essential for each regular major to contribute to the binder. The binder was submitted, although it was missing lessons from some of the majors, so the project, in essence, was complete, although perceived incomplete by some of the majors. On the other hand, planning by collaborating with peers was essential for the completion of the exercise video. Exercises needed to be taught, groups needed to be organized, taping needed to be scheduled, and editing needed to happen on a very tight schedule. Any person not aware of or not working toward the group goals would derail the project from being completed. The cascading majors addressed the collaboration with peers as almost a natural and essential component of the service-learning project. They all addressed it with each offering their own unique perspectives. Cascading majors saw service-learning as providing an essential reason for collaboration with peers.

Since collaborating with peers was not a specific concept covered in the curriculum for the elementary education majors, service-learning projects provided an opportunity for majors to participate in and assess what collaboration with peers means to them within the greater context of education in an elementary school. Service-learning provided an opportunity for majors to gain an understanding of what it means to collaborate with peers within an elementary school context.

Collaboration with Community

One of the concepts covered early in the “Introduction to Education” course was the partnerships that can be established between schools and the outside community. While involved in a discussion on this topic, majors in all three sections of the course came to realize that they were an outside community resource for the elementary school where they were participating in their service-learning projects. We were bringing this textbook concept to life with the Granger/Rowan Service-Learning Partnership through collaboration with the community.

Regular model.

From the regular model perspective at the onset of the semester, Tammy named the role of collaboration:

I could definitely tell by the only three kids I had interaction with in the gym class as well as the few I met while walking around the school that some of those kids are craving attention. For the most part they seemed happy but it was hard to tell given the short amount of time we had with them. You could also recognize that the teachers will be pleased to have the community coming to them - collaboration. I’m really looking forward to working at the school. (Tammy, 2-1)

Mary was more concise when she explained, “Supervisors are very concerned with outside sources helping students. I think Rowan is also an outside source that benefits children” (Mary, 10b). Cindi offered an abstract connection by explaining, “The project that we are working on at Granger most relates to the concept of collaboration that we have been learning about in class. We are actually working with the school and giving them resources that they can use and benefit from (Cindi, 2-2). She added, “I see numerous connections between what we have been learning in class and what we are experiencing in the school. Through our organizers we learned about the importance of

collaboration in education. Our class is helping the school by collaborating with them” (Cindi,10a). Here Cindi references the graphic organizers that majors had to design as a course assignment. They developed a graphic organizer for each chapter they read in the text. A synthesized class organizer was created during the ensuing class discussion on each chapter. Cindi made a connection between the course content on schools collaborating with outside resources and her class participating in service-learning projects at the elementary school. She came up with a real world connection to her course content. Tammy was even more specific by naming one of the needs, “Today’s service learning incorporated collaboration with the community because we helped meet a need for supplies that the classroom had” (Tammy, 3-11).

A look to the future wraps up the regular model majors’ perspective on collaboration with the community. Both Mary and Cindi put a value on what they had learned while Cindi claimed that collaboration was important:

Collaboration is extremely important in education. Students’ families can provide the essential support that helps them succeed. Communities also play an important role. Businesses and groups outside of the school often offer information and services that a classroom alone cannot achieve. This had made me realize that educational goals can be better fulfilled when there are more sources of information and assistance. (Cindi, 10)

Mary offered a purpose, “I would use service-learning in my classroom because I want my students to be able to reach out to the community in a meaningful way” (Mary, 5BV7).

Cascading model.

In the cascading model of service-learning, a further layer of collaboration presents itself, which occurs between the college majors and the elementary students as

they plan and implement their service-learning project together. Interestingly enough, even though the college majors did indeed collaborate with the elementary students, only Julie really addressed this:

In working with the 5th grade class, I realized an effective environment for learning was one where we encouraged our students, allowed them to share their ideas about the video and exercises, and organization in which every group had a responsibility. I tried to constantly encourage my group as they learned and performed exercises. I also encouraged my group to work together to share ideas regarding the video and exercises. Finally, I participated in the planning of the classes in which we set goals and tried to keep the exercises relevant to their lives. (Julie, 10c)

Julie was proud of the fifth graders. She explained that before the majors started working with them, they were not allowed to participate in physical education because of behavior issues. She claimed that once the majors gave them attention and a unique learning experience they did very well. “I also feel happy that some students who did not participate in gym class before now are active participants in the class and even find themselves enjoying physical education” (Julie, 10c).” While Julie named learning as “effective” when she realized that collaboration with students can create an effective environment for learning, she also indicated that a “successful” school is one that involves collaboration with the community:

Service-learning has allowed me to see that a school is successful when it uses a collaboration of the community. In Rowan going to the service-learning school, we have been part of a collaboration of community in which the children benefit. We go to the service-learning school and give more attention to children who desperately need attention and teachers who need the help and assistance. This service-learning experience has allowed me to become part of a successful collaboration between the community and the school. (Julie, 6)

While contemplating the value of collaborating with the community, Julie also projected her thoughts into the future, “My (future) classroom will involve more than just me as the teacher. My classroom is part of a school community in which there are many

levels of leadership and collaboration” (Julie, 10). She indicated that service-learning is good because one of its components is collaboration. For her own classroom she wanted to remember how good service-learning experiences were. She would incorporate service-learning into her classroom so that her students would get more out of their education. She also saw service-learning as a way to collaborate with the community and families of her students. Coming from a more specific perspective she offered:

I will remember for my future classroom not to rule out certain students. I think that breath of fresh air that Rowan brought to this gym class engaged some students in physical education in ways that they have never experienced. I want to remember to use as many resources as possible to give students new and creative opportunities for learning. I hope that I will remember to think in creative ways for my students to learn important lessons like we did in this service-learning experience. (Julie, 10c)

Nina and Julie both talked about how service-learning, incorporating collaborating with the community, can make a difference. Julie talked from a personal perspective about her relationship with students:

I really enjoyed service today. I felt like I was really working with the children and making a difference. I was part of the collaboration between community and school. We got to help and give attention to kids who desperately need attention. I am already building a relationship with two of the girls in my group. I hope that I can be a positive role model & mentor for them. (Julie, 2-2)

Nina also included her personal perspective when addressing the collaboration of many groups at Granger:

I think that there is lots of outside involvement including us, as well as many parents and grandparents. They are in classes, correcting papers, and working with students. I feel it is important to have many people helping out, and it seems to be working. The classes with extra aides seemed more organized and structured. I'm happy and proud to be one of the people in the school making a difference. (Nina, 10)

Data did not offer a perspective from Deb on collaboration with the community.

Synthesis: Collaboration with Community

This synthesis of collaboration with the community is offered in this order: regular model, cascading model, and finally, a summary of the two models.

Regular model.

All three regular majors made the connection between course content and their service-learning experiences. Forming partnerships and/or working with the outside community was a concept read about in the text and discussed in the “Introduction to Education” class. Students observed and recognized that Granger collaborated with their outside community in various ways. Mary implied that supervisors wanted outside help to benefit children. All three majors realized that Rowan College, through service-learning projects, was an outside resource for the elementary school. They themselves were collaborating and helping the school. Tammy was specific when she stated that teachers would be pleased to get help and then later explained that she and her peers brought school supplies to the students in the classrooms where they were working. Mary and Cindi both placed a value on collaborating with the community. They experienced the collaboration and recognized it as such, but took the lesson a bit further when they talked about how they could possibly apply what they have learned to their future. Mary said that she would use service-learning to collaborate with the community in her future classroom because she wanted her students to reach out to the community in a meaningful way. Cindi also projected into her future by admitting that she learned, through her collaboration with the school (community), that more resources can help you better meet educational goals.

All three regular majors recognized that service-learning projects engendered collaboration between the elementary school and the community and that this collaboration could be beneficial for the elementary students. While, as college students, they were still on the community side of the collaboration, Mary and Cindi projected themselves into the future and envisioned themselves on the elementary school side of this relationship. Participating in service-learning projects involving collaborating with the community provided regular majors with a connection between their course content and the real world of elementary school classrooms. The course content, collaborating with the community, became real enough that Mary and Cindi could make a further connection to their own classroom in the future. Tammy might have made that further connection also, but she did not express it in words or writing for us to verify. She did recognize the benefits of collaborating with the community.

Challenges to collaboration were explained by Mary in the previous collaboration with peers section of this chapter. She preferred to work independently so collaborating with peers on a project was a challenge for her. There were also challenges to collaboration with the community. For the second semester Mary found herself in a fifth grade classroom where the teacher was not as collaborative as she expected. "I think some of the challenges stem from we don't know what we are doing when we get there" (Mary, 1-14, 6). The majors did not have the latitude to design and teach lessons as they had the first semester in the gym class. "I think we just have to almost kind of set aside anything we were thinking about doing. We almost have to go in there kind of, not necessarily without expectations, but we have to know that we are just basically there as a

tool” (Mary, 1-14, 6). Collaboration does not always meet the expectations of both partners. This is developed further in a later section of this chapter.

Cascading model.

Projecting into the future like Mary and Cindi of the regular model, Julie, a cascading major, also claimed that she would use service-learning in her future classroom. She stated that service-learning experiences were good and a way to have collaboration of the community resulting in students getting more out of their education. She knew this because service-learning has allowed her to see that a school is successful when it involves collaboration with the community. Her participation in this project allowed her to become part of a successful collaboration between the community and the school. She, too, in the future, would cross the boundaries and participate in service-learning from the school side of this relationship because she believes service-learning can make a difference to students. It seems that Julie saw service-learning as the vehicle for providing collaboration with the community, which would result in students getting more out of their education.

With Julie, different aspects of collaboration with the community appeared throughout her data. She was the only major who addressed collaborating with the elementary students on a service-learning project. She found that including students in the project by listening to them, encouraging them and giving them responsibility would set up an effective environment for learning. She reinforced this idea when she explained that the fifth graders were having behavior problems and were not participating in gym class. Getting involved in the service-learning project with the majors allowed the fifth graders to experience collaboration with the community, or in this case, cascading

majors. According to Julie, because they were listened to, encouraged, and given responsibility, through their participation in this service-learning project, students seemed to turn around and become more active and even enjoyed gym class. She named this service-learning project a “unique learning experience” and gave it credit for providing this effective learning environment.

Through collaboration with elementary students while participating in this service-learning project, Julie seemed to draw a few guiding principles from her experiences. A cascading service-learning project provides collaboration between the school and the community and includes involving students, encouraging them, and giving them responsibility while establishing an effective learning environment. Collaborating with the fifth graders on the exercise video allowed her to establish what might be the beginning of her own teaching philosophy.

Along this line she also recognized that she should never give up on trying to reach and teach a student. She saw the turn around in the fifth graders from un-teachable to active learners. She noted that she would use every resource possible and her creativity to help her students learn important lessons. Through collaborating with the community in working on a service-learning project with the elementary students, Julie identified what she might have referred to as components of an effective learning environment and the importance of reaching every child.

Nina, a cascading major, though not as extensive in her reference to collaboration, saw the majors and herself as one of the various outside groups providing support to the elementary students. She considered outside help important and successful because she indicated that these collaborating efforts were working. She stated that the classrooms

with the extra aides were more organized and structured. This indicates that Nina's perspective on collaborating was not limited to just service-learning experiences because she talks about other groups in the community who came into the school to help students (in classrooms, correcting papers, and working with students). Her service-learning experience was the means by which she was able to make this observation, so from her perspective, it is the collaboration that is significant and the service-learning provided the opportunity for that discovery. A peek into the beginning of her thoughts on education might indicate that success may be linked to organization and structure. For her, collaboration with the community, bringing more aides into the classroom, seemed to offer more organization and structure. For some reason these two concepts came forth through her experiences so they might hold some significance for her.

Cascading majors had to work more directly with elementary students than the regular majors because they had to complete a cooperative service-learning project. Service-learning provided opportunities for cascading majors to gain more specific insights into the world of elementary education.

Summary of regular and cascading models.

Majors of both models recognized that service-learning connected their course content to their real life experiences in the elementary school. They learned about collaborating with the community by reading their text and participating in class discussions. They lived that collaboration when they went to the elementary school.

With the regular model, Tammy described their collaborative efforts and the needs that were met, but she did not name them as important. Mary and Cindi came right out and stated that service-learning provided collaborative opportunities that were

important and meaningful. With the cascading model, Julie and Nina both declared collaboration to be successful. Unique to their model, they had the opportunity to collaborate directly with the elementary students and work on the service-learning project together. They seemed to gain more specific ideas about education. Not only did they indicate that collaboration was successful and good, but they were able to pull those “successful” elements out of their experiences and name them. Julie found that a successful learning environment in the elementary school might include encouraging students, allowing them to share their ideas, assigning them responsibilities, and making sure she exercised her greatest effort to reach every child. Nina pulled from her collaborative experiences that successful classrooms might be organized and structured. Cascading majors pulled more specific elements about education from their service-learning experiences and the collaboration with students on a coordinated project may have provided the means for specifics.

As mentioned in previous data entries for the cascading model, both Nina and Julie felt that collaborating with the community on service-learning projects allowed them the opportunity to make a difference in the world. This sentiment was shared by the other majors, both regular and cascading. The third cascading major, Deb, explained that at the end of the semester the students were very excited about being in a video and getting team shirts. She was very pleased to be a part of the whole experience and to know that something she did was going to have a positive impact on the students, possibly for the rest of their lives. She said that she would recommend service-learning courses to other people because “it is so rewarding to work with the little kids you know you are making a difference” (Deb, 5bI5).

The regular majors also offered their perspectives on making a difference. Mary suggested that service-learning educates people to see the needs of their community. “It also teaches them how to self-sacrifice willingly to make a difference” (Mary, 2-11). After a few weeks into the first semester, Cindi commented that she felt like she was contributing something to the school. By the end of the second semester, she explained that it was “extremely gratifying to make a difference” (Cindi, 5bI5). Tammy talked about feeling closure on the semester. The majors gave the binder to the gym teacher and all the kids got up to say goodbye. She was gratified to know that they had made a difference. “It was hard to make connections with the kids but we are starting to learn their personalities and it’s too bad we have to leave them now! I feel like we made a difference and will leave a positive impact on the Granger school” (Tammy, 10c).

Majors from both models indicated that their service-learning projects provided opportunities to collaborate with the community. This collaboration established a connection between their course content and their service-learning experiences that facilitated their understanding of a specific course concept, collaboration with the community. Through collaborating with the community they learned the benefits of collaborating with the community. Service-learning projects helped bridge the gap between the content as read and the content as lived and learned.

Collaboration Theme

The previous discussion of data entries and their possible implications related to collaboration: both with peers and community; and including both regular and cascading models, led me to form an overarching generalization. Service-learning in teacher education courses provided majors with opportunities to collaborate, both with their peers

and with the community allowing them to gain insight into the world of elementary education. At the end of the second semester, Mary had this to offer, “I would recommend service-learning courses to others because it is a great experience to both teach, collaborate, and reflect with some guided instruction” (Mary, 4b15). Collaborating with the community helped develop *two—way*, reciprocal relationships which are discussed next. Figure 2 offers a visual presentation of the inductive development of the collaboration theme.

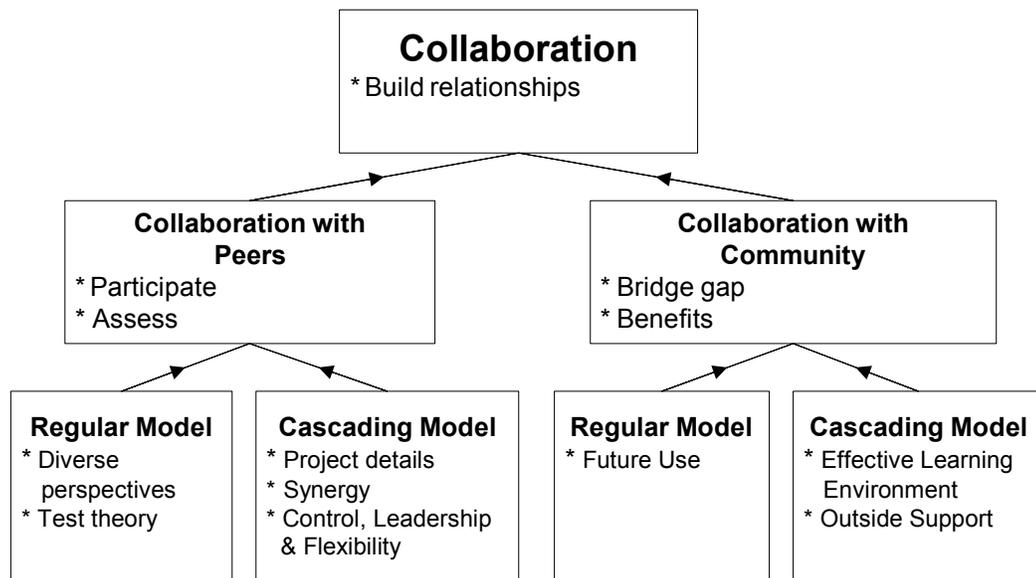


Figure 2. Development of Collaboration Theme.

Reciprocity

This section presents majors' perspectives on the *two—way*, reciprocal relationship between majors and the community. While all six majors addressed reciprocity in different degrees, two majors offered further insight into their views of meeting a need. The discussion begins with majors' description of this reciprocal relationship and is followed by a look at the value they placed on this relationship. As with the collaboration section, the regular majors' perspective precedes the cascading majors' perspectives for this discussion. These ideas are synthesized before discussing two majors' perspective on meeting needs. A final conclusion is offered.

Regular Model

While all six majors recognized that there are two parties involved in a service-learning project, they all expressed this relationship in similar, but different ways. All three majors in the regular model group talked about the relationship between service and experience. While they were in the schools to provide a service, they also gained experience in a classroom. "Service-learning provides future teachers with experience while at the same time meeting a need in the school" (Tammy, 4bV4). Cindi worked with the same idea, but added a result to the experience by explaining that those doing the service, the majors, not only participate in the experience, but they also learn from it. "Service-learning is definitely us going out to meet a need and providing a service to the person we are working for or helping, but also we're gaining something in return by gaining that experience and knowledge" (Cindi, 1-10-7). Mary offered a bit of a different spin, "Service-learning provides an opportunity for students to interact with the

community in a symbiotic relationship where the students gain experience by fulfilling a need in the community” (Mary, 4bV3). While Tammy saw service-learning experiences as a stepping stone for future teachers, Cindi mentioned the knowledge gained from the service-learning experiences. Mary looked more to the type of relationship between the two parties. It is not just one party doing the service and the other receiving, but both parties interacting and working together in a partnership.

While the discussions above describe the majors’ perspectives of reciprocity in their service-learning experiences, they also offer insight into how they valued these reciprocal experiences. The three regular majors seemed to believe that these service-learning, reciprocal experiences were beneficial because they each used this descriptor when explaining their individual perspectives where “virtually everyone involved learns and benefits” (Tammy, 7a). To be a bit more specific, Tammy continues:

I would say that you have two groups of people, both have certain needs. And then one group goes to the other to fulfill that need. Like going to teach to read. The teacher benefits because she gets to know that her students are getting individual attention and the students benefit from getting the individual attention and we benefit by working with the kids to make us better teachers. So I think the main goal would be that everybody wins and things get done. (Tammy, 1-5-4)

Cindi explained that service-learning is “important for the person providing the service because they learn something from it and it’s also important for the people who are receiving it because they get something out of it” (Cindi, 1-6-3). It is “meeting a need while gaining experience that is self-beneficial as well” (Cindi, 4bV4). Elaborating further, Cindi mentioned a few times that service-learning was educative, “(Service-learning) is educative for us, the people that are doing the service-learning, because we get more of an understanding of our field and what it’s actually like to do what we think

we want to do and it's also educative for the students because we are helping them out" (Cindi, 1-4-10). With more of a focus on the city, elementary school where she was participating in service-learning, Cindi also named specific needs for both parties involved in this reciprocal relationship. The elementary students wanted attention, and the majors received training for teaching. "Service-learning provides more attention for the class receiving the service, and experience for the ones serving. This makes for well prepared future teachers" (Cindi, 5bV3).

Mary wrote that she would use service-learning in her future classroom because "I think that it is beneficial for all parties involved" (Mary, 4bV7). She seemed to begin the first semester a little unsure of what service-learning had to offer,

I had no idea what we were going to be doing with service-learning, now I know that we are coming to school, we are providing a service to the students; helping the teachers out in any way that they need, getting to know the students a little better and working with them and also improving ourselves as afterward reflecting on some of the different ideas from working with the students." (Mary, 1-3-3)

Reflecting back after the end of the semester, Mary seems to think that service-learning was beneficial all around:

I feel like I actually enjoy service-learning a lot more than when I was in the middle of it. When I go back and think about the different things we did and the different relationships we established with the students, other people, and the principal, I feel like it was so beneficial all around: for us, for the kids, for the school in general, and even for the community. Because we were able to come in and help these kids with various things such as just catching them up in their reading and math but then also working with them in a more fun environment in gym class. So it was interesting to see relationships for all of us develop over that time period. (Mary, 1-7-3)

Cascading Model

While the regular model majors all addressed the relationship between service and experiences, the cascading model majors addressed this relationship a bit differently. Julie talks about a help/learn relationship, but includes that you learn about book content and uniquely, yourself. “Service-learning is a chance to help others while learning about yourself and book knowledge” (Julie, 5bV4). Deb’s perspective includes a giving back/gaining knowledge relationship and is the only one to use the term “reciprocal”. “Service-learning is an experience in which you gain knowledge at the same time you are giving back to, you’re giving back to your community – it’s kind of reciprocal” (Deb, 1-12-5). Nina comes from a teaching/learning/problem solving relationship. “Service-learning is teaching and learning about a community issue and working to solve the problem through some type of activity” (Nina, 4bv4). Her perspective might be interpreted as more focused on the cascading model of service-learning. The majors need to learn about a topic they are going to be investigating and then they have to teach it to the elementary students so that the elementary students learn the same topic so that they can teach it to others or use that knowledge to solve a service-learning problem.

From the cascading group, on a number of occasions, Deb found service-learning to be beneficial. “(Service-learning) is an experience where you are benefiting the community and getting something out of it” (Deb, 5bV4). More specifically, she argues that, “Service-learning helps students relate what they learn to their everyday lives because the project they are doing has an impact on their community” (Deb, 4bV7). Deb indicated that she valued the service-learning experience by stating that it was benefiting the community. She also offered that those doing the service get something out of it

because students can relate what they learn to their everyday lives. Julie is more focused on the benefits to both parties involved in the service-learning project. She explains that it is a unique opportunity, “I guess service-learning is unique because we can go out to the school, we can help and we can learn and like everyone wins. So it’s a unique experience” (Julie, 1-2-5) and there is a help/learn relationship, “I would describe service-learning as an opportunity to help the community while learning, thus making it a positive experience for all involved” (Julie, 4bV4).”

Synthesis: Reciprocity

As in the previous section, synthesis of the regular model will precede synthesis of the cascading model.

Regular model.

As stated in their descriptions of reciprocity, all three regular majors identified experience and need as the building blocks of reciprocity. At the very basic level, majors gain experience while community (students, teachers, school) needs are met. The majors are the servers on the experience side and the students, teachers, and/or school are the receivers on the need side of this reciprocal relationship. Majors’ discussions on experience and need are situated within the framework of this relationship. Students would not get assistance learning to read if the majors were not there. Likewise, the majors would not be learning about teaching without assisting students. Each is described and understood in relationship to the other.

All three regular majors also indicated that they valued this reciprocal affiliation because it was beneficial to all parties involved. Where these three differ is in their

perspective on experience. Both Tammy and Cindi stated that their service-learning projects provided them with the opportunity to gain experiences appropriate for future teachers while they worked to meet a student/school need. Tammy supported this by sharing an example of a project where majors teach elementary students to read. She explains that everyone learns and benefits. The elementary teacher knows her students are learning to read because they are receiving help. The elementary students benefit because they get individual attention and the majors benefit because they are learning to be better teachers. She explains that the experience is a benefit for the majors doing the serving because it will make them better future teachers.

Cindi's perspective on experience is similar because she claims that the majors' service-learning experiences are self-beneficial because they gain knowledge that will prepare them to be future teachers. She also claimed that service-learning was important because the server learned something and the receiver "gets something out of it" (Cindi, 1-6-3). As noted here, she is not always specific about the receivers' benefits from this reciprocal relationship, although once she did indicate that the students got attention. For Tammy and Cindi, this reciprocal relationship seems to have two distinct components: experience and need, which is assigned to majors and students as servers and receivers, respectively. The experiences gained by the majors as servers is beneficial because they will facilitate their growth and knowledge as future teachers. The receivers, who are the students, benefit because their needs are met. In their discussions, Tammy and Cindi maintain the two as separate entities, although tied together in a beneficial relationship.

Mary, the third regular major, also refers to the *experience—need* relationship as being beneficial, but she does not seem to look on these as decidedly separate entities.

She speaks of an *experience—need* relationship where the majors and community interact together in a symbiotic relationship that is beneficial for all. Her description had me envisioning intertwining entities, as differentiated from Tammy and Cindi and their separate entities. While designing a graphic organizer during the analysis phase of this category, Tammy's and Cindi's data seemed to clearly fit left and right groupings with experience, majors, servers, etc. on the left and need, students/teachers, and receivers on the right. When I got to Mary's data, some fit left and right to follow the pattern, but when she started talking about relationships and interacting, placing entries became somewhat vague. She was not focused on distinctly left and right, rather more of a meshing to the middle to recognize the personal growth elements of interacting, and relationships. It was not that they gained this and we gained that, it was more like we all came together, interacted, and developed personal relationships over time which were beneficial to all. It seemed that for Mary, service-learning provided her with opportunities to interact with other people and form relationships that grew with time. Benefits for majors, the kids, the principal, the teachers, the school, and the community seemed to spin off of these relationships. She still referred briefly to the *left – right* organization: *experience—need; students* (her reference to majors)—*community; provide service—help teacher; and improve ourselves through reflecting on experiences—know and work with kids*. Her focus seemed to be centered on personal relationships as demonstrated by the numerous entries related to relationships in her data.

Service-learning offered regular majors the opportunity to recognize and value reciprocal relationships. These relationships involved experience for the majors and needs met for the teacher/student. All three majors considered this relationship to be

beneficial to all involved, but they differed on the outcome of that relationship. Tammy and Cindi saw their experiences as a stepping stone to becoming a teacher. The service-learning projects provided them with experiences in an elementary school classroom that would lead to a better understanding of the teaching profession. For Mary, the service-learning projects allowed her the opportunity to develop personal relationships where all persons involved interacted and benefited from the experience. Majors improved by reflecting on their experiences of helping the teacher and working with the students. This reciprocal relationship of majors coming to serve so that teacher/student needs could be met was valued by Mary because she had developed personal relationships. The reciprocal relationship led to personal relationships. Regular majors saw service-learning projects as a benefit for learning about teaching and establishing personal relationships.

Cascading model.

For the three cascading majors, the service-learning reciprocal relationship was also drawn out in an *experience—need, left—right* configuration. While only Deb used the term beneficial when referring to the reciprocal relationship, Julie stated that with this relationship, everyone wins and it was a positive experience. Deb actually named this *experience—need* relationship as reciprocal. She explained that majors gained knowledge through experience by giving back to the community through their service-learning projects. Julie saw the service-learning project as a unique experience where you help others while learning about the book and yourself. Like the cascading majors, both Deb and Julie stated or implied that service-learning project with its reciprocal relationship was beneficial to all involved.

Nina did not really assign a value to the reciprocity involved in service-learning, but she did describe this relationship with what seems like more of a focus on the cascading model. Majors/students teach and learn about a community issue so that they can work to solve a problem through action. She did not name experience and meet a need directly, but teaching and learning can come by means of experience and solving a problem can refer to meeting a need. So, while the words may not be there, the *experience—need* relationship seems implied, but remains a bit more complex for the cascading model. The majors gain experience by working to meet the needs of the elementary students, who gain experience by working to meet a community need. Nina seems to be saying that majors have to learn enough to teach the elementary students enough so they, in turn, can learn enough to teach (or serve) the community. The first semester service-learning project is an example of this. The majors learned about “exercises and muscles” in order to teach “exercises and muscles” to the elementary students. The elementary students then learned this content in order to make a video and teach the second graders about “exercises and muscles”. As Nina described, teaching and learning a community issue (good health through exercise) in order to solve a problem through action (making a group video) relates to the cascading model.

With this complex process of the cascading model in mind, it is interesting that the cascading majors did not have as many data entries on reciprocity as the regular majors, nor did they go into as much detail about the reciprocal relationship. One reason for this may be the same reason Nina does not name the simple reciprocal relationship as *experience—need*. The cascading majors were involved in relationships beyond the simple *experience—need* model. The cascading model reciprocal relationship might look

like this: *experience—need—experience—need*. The majors learn through experience while meeting the elementary students' needs and the elementary students learn through their experience while attempting to meet a community need. So the simple becomes more complex for the cascading majors. In the next chapter, the category "cascading" is discussed further.

Meeting a Need

Mary from the regular model and Nina from the cascading model had data entries that spoke clearly and uniquely about just the need side of the *experience—need* relationship. Their perspectives are presented and then followed by a synthesis.

Regular model: Mary.

Mary, a regular major, explains that, "Service-learning is when you find a need in a community such as in the school system and you try and work with the school system to figure out a way to meet that need. It can be through tutoring, which is one way we have been working on. Or just any way that need can be met in any particular manner" (Mary, 1-12-5). What Mary does not verbalize here, but comes out in further discussion is the fact that the need is defined by the community, not the persons doing the service. "I think we just have to almost kind of set aside anything we were thinking about doing. We almost have to go in there and kind of, not necessarily without expectations, but we have to know that we are just there basically as a tool. We are there just to help in any way that we possibly can" (Mary 1-14-7). She further describes her perception, "We start out by, we come down to the school and we go on a whim and do whatever the teacher needs that day" (Mary 1-13-4). The use of the term "whim" here is interesting because it seems to

imply a lack structure or planning by the teacher with the majors. While the teacher may have a plan for each day the majors are there, she does not share it with the majors prior to the majors arriving at her classroom door, thereby being perceived by Mary as a “whim” or last minute idea.

Through her continued service, Mary seems to come to a different vision of her purpose in the school. She is no longer looking to meet her expectations, but rather comes to see the need in the school and recognizes that she is helping to meet that need:

The funding at Granger is considerably different (lower) than at other schools because the funding is based on the tax bracket of the community. In my mind, this translates to “they don’t have a lot at home, so they won’t need a lot in school either.” Luckily the teachers know how to compensate so that it looks like the room has just as many resources as other classrooms. Cinderella (Mary’s name for the teacher) hangs up all the students’ art work and she also makes her own manipulatives. She creates charts, posters, and all kinds of visual guides to help the students learn. While the final product rivals the visual aids in other classrooms, Cinderella has a lot more work to do than just placing an order with a catalogue. There are only 24 hours in a day so with teaching, correcting, tutoring, and attending meetings, it is often difficult to find time to take care of everything. So today we had a chance to take care of some of this work for her. She was very much appreciative, as were the students. I think that the students could care less if we were there to change the world, or to take out the trash; they just like having us there. (Mary, 3-6)

Cascading model: Nina.

When considering the cascading model of service-learning, one major specifically addressed meeting a need. Nina seemed to concur with the description of service-learning offered by Mary, but with an additional focus that makes sense within the cascading model. Since the cascading model involves the majors participating in a service-learning project that involves the elementary students’ participation in a service-learning project, the needs to be addressed are two-fold. The needs of the elementary students should be met and the needs of the greater community are also to be considered. Nina explains,

“Today we introduced our service-learning project to the second graders. I think it is an awesome idea. We are having a letter-writing campaign to the soldiers in the Middle East. It addresses not only a school need, but a community need” (Nina, 3-8).

Synthesis: Meeting A Need

The synthesis of Mary’s perspective precedes the synthesis of Nina’s perspective on meeting a need.

Regular model: Mary.

Mary’s perspective on her role in meeting a community need during a service-learning project seems to progress through a transition. She began with the right words of working to meet a community need – in any way, in any manner. Then the reality of the situation seemed to hit when she explained that she is at the whim of the teacher as to what she will be doing for service. She further states that her ideas or expectations for this service-learning experience must be put aside because the tasks for this service are defined by the teacher and she sees that her role is to help out in any way possible. She actually assigned herself the descriptor of tool. Somewhere along the way she seems to grasp the bigger picture of service-learning: it is not about what you want to provide, but what you can provide to meet needs defined by others. The teacher was asking for help – in whatever way she needed at a particular moment in time. It might change from week to week, or hour by hour. The important thing is to be there for the teacher, for as Mary describes, urban, public school teachers work hard and produce impressive results with less than many of their counterparts in more affluent districts. Mary came to see her role as making a difference by assisting the teacher to complete some of her many tasks.

Beyond just meeting the need, Mary also describes service-learning as an awakening to or an awareness of the greater community. Service-learning is not only about meeting the community need, but also about learning to see that need within the community context, to step outside of what the server sees as the need and try to understand from the perspective of the community in need. With this recognition of becoming aware of the community need comes potential sacrifice on the part of the server. It is easy to serve within the boundaries of your own expectations and comfort zone, but to serve where and how you are needed, possibly outside your comfort zone or beyond your expectations, may require a bit of selfless action, choosing to serve where you are needed. This may be a choice to make a difference in the world. “Service-learning educates people to see the needs of their community. It also teaches them how to self-sacrifice willingly to make a difference” (Mary, 5bV3).

Cascading model: Nina.

The school need identified as improving students’ writing skills were met as the students wrote letters to soldiers in Iraq. The greater community had needs met when the soldiers received letters from home. With the elementary students writing letters and soldiers receiving the letters, the two-fold needs of the cascading model were met. While Nina did not assign any particular value to the reciprocal relationship or more specifically, meeting a need, she did illustrate the complex nature of meeting needs when participating in cascading service-learning projects.

Reciprocity Theme

Regular majors had more data entries and offered more insight into their perspectives of the reciprocal relationship of their service-learning experiences than did the cascading majors. I suspect that for the cascading majors, the reciprocal relationship involved in a cascading model of service-learning was more complex and did not fit the simple *experience—need* pattern. Their pattern was more of an *experience—need-experience—need* format and is addressed in the discussion of the cascading model.

When I sketched out the graphic organizer for this concept of reciprocity, every majors' name was written across of the paper with two lines projecting up, one on the left and one on the right. The left arrow pointed to the word experience and the right arrow pointed to the word need. According to all six majors, a reciprocal relationship involved majors gaining experience while meeting the teachers/students needs. The cascading model is a little more complex for Nina, but the basic *experience—need* concept is there – just doubled. All the majors saw service-learning as a means to gain experience in the elementary school while meeting a community (school) need. While each learned something unique through their experiences, the majors expressed or implied that the reciprocal nature of their service-learning experiences was beneficial to all involved. Service-learning provided majors with opportunities to be involved in beneficial, reciprocal relationships where they gained experience as they worked to meet a community need. Figure 3 offers a visual presentation of the inductive development of the reciprocity theme.

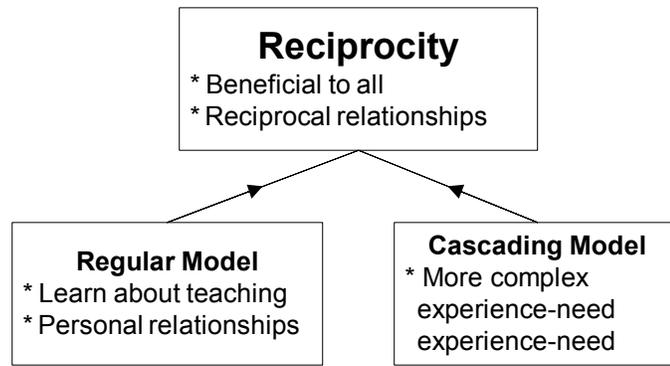


Figure 3. Development of Reciprocity Theme.

Connections

As discussed in the last section on reciprocity, majors participated in a reciprocal relationship of *experience—need*. Majors gained experience in an elementary school while they worked to meet the needs of the teachers and/or students. This section on connections addresses majors' perspectives on the experience side of this reciprocal relationship as they participated in the service-learning projects. This discussion begins with a look at general connections and then content-specific connections. All majors addressed reflection in service-learning, so that is added to the discussion to be followed by elementary connections, elementary students' connections and expansions and exceptions. As with the past sections of this chapter, for all of these discussions through analysis and synthesis, the regular majors' perspectives is presented first and is followed by the cascading majors' perspectives.

Abstract Connections

Abstract connections are those mentioned by majors that link course content and real life experiences without referring to any specific content.

Regular model.

Only two regular majors, Mary and Cindi, briefly addressed the connection between course content and service-learning experience in abstract terms. Mary described this connection by using a powerful but ambiguous verb. "The course (Introduction to Education) forced me to connect various aspects of service-learning to the topics discussed in class" (Mary, 4bI6). The word forced can have negative connotations, but in this instance I think that Mary's connotation was positive, similar to being forced to eat

healthy foods when you are at a health spa. You didn't choose it, but it is a consequence of the context. You really can't force someone to think a certain way and form connections (otherwise teaching would become a simple task of forcing), so maybe her experiences were set up to guide her through the process of making connections without specifically saying, "Now we are going to connect." Cindi offered a vague reference to "Learning Theory" content, "Working in the classroom, I was able to experience first hand many of the topics regarding how students learn" (Cindi, 5bV6). Cindi claims that she experienced topics, but did not name the topics.

Cascading model.

Cascading majors, Deb and Julie, offered their perspectives on the general connections between content and experience. Deb suggested that you do not have to be in a classroom to learn, "I know that you don't just have to learn in a class room environment and sometime you learn better outside the classroom" (Deb, 5bV2). Following this thought, Julie talked about a content-alive connection offered through service-learning experiences. "My participation (in service-learning) brought the course content alive and made it more tangible" (Julie, 4bI6). This trend continued with more impetus as both Julie and Deb talked about a book-real world action connection. Deb offered, "I think it is interesting to read about something in a text book and then a couple of days later see that idea/philosophy/concept in action" (Deb, 10b-9). Julie referred to the same connection when she said that service-learning was educative because, "we can see what we are learning and we can do it, and feel it, and try what we are learning in the books so it becomes real, not just words on a page" (Julie, 1,4-11). Julie continues, but suggests that experiences providing this book-real world connection can have an impact.

“Service-learning is a chance to put what we learn in the books into action and see it relate with what we are learning to the real world and real students and build on our experiences so every experience changes us” (Julie, 1,9-7). Deb brings another dimension into this discussion by bringing the *content—experience* connection back into the college classroom for a *content—experience-discussion* connection. “In class we would talk about concepts, see them in action in Campion (her name for Granger) then talk about the relationship” (Deb, 4bI6). Content was covered in class, seen during the service-learning experience, and then this connection or relationship was discussed in a following class.

Synthesis: Abstract Connections

All of these general connections are data entries that addressed majors’ abstract connections perceived between their course content and their service-learning experiences. Abstract is used to indicate that there is no specific content mentioned. What is noticeable, though, is the repeating pattern of the relationship between the content and experience. On the one side, majors referred to course content as class topics, topics, course content, books, and class. On the other side for service-learning experiences, the regular majors used the terms service-learning and experience while the cascading majors tended to use action words to describe the content within the experience context. They talked about seeing, doing, feeling, and trying out the content in the elementary school. They also talked about the content becoming alive, real and in action, not just words on a page. Could it be that the cascading majors, having to work closely with the elementary students as they planned and implemented a service project together, perceived their experiences in more of an active, real world context? Their working together for a

common goal might have engendered more of an active, real world vision of their experiences.

Two of the cascading majors built upon the *content—experience* relationship by adding to the connection and naming a result of the connection. Deb added to the connection by naming a further component of this connection process. She stated that concepts were discussed in class, seen in action in the elementary school and then brought up for discussion again during the following class. She described a *content—experience—discussion* relationship where the discussion component involved looking back and talking in class about the *content—experience* connection. Julie talked about how being involved in the *content—experience* relationship of a service-learning experience resulted in change. She explained that experiencing content in the elementary school made the content real and became the catalyst for changing the majors, but she does not mention how they were changed.

Service-learning provided opportunities for majors to recognize the abstract connections between their course content and their service-learning projects. For both models, the course content was identified from book content and/or class topics. The experience end of the *content—experience* relationship was perceived differently for each model. The regular majors named experience as experience or service-learning while the cascading majors used alive and action oriented words to name their experiences: see, do feel, try, alive, in action, tangible, and relate to the real world. Being involved in the cascading model could have allowed them to be more actively involved with the elementary students so that their perceptions of their experiences took on this action quality. Service-learning provided cascading majors the opportunity to work with

elementary students within a more active format allowing them to experience an active, hands-on educational environment.

Because they have said so in their data entries, it might be easy to imply that the majors made connections between their course content and their service-learning experiences. They talked about the book coming alive, relating content to the real world, and seeing class discussions in action. They use all the right words, but questions remain unanswered. What in the book came alive and how? How and where was content seen in the real world? What actions brought to life the subject of class discussions? These questions are answered in the next section, Content-Specific Connections, where majors give specific details on how their course content was connected to their service-learning experiences.

Content-Specific Connections

Moving more in-depth from the general, abstract connections, all six majors described their *content—experience* connections by offering specific content that was connected to their experiences. They referred to specific course content when talking about connecting to their service-learning experiences.

Regular model.

Tammy, Cindi, and Mary named specific course content that connected with their service-learning experiences. Tammy identified specific content from both the “Introduction to Education” and the “Learning Theory” courses that was experienced in the elementary school. Personal management style and motivation were both concepts that were introduced in the “Introduction to Education” course:

I have observed how the different teachers (classroom and gym) reflect their personal management of the kids in the specific settings. Neither teacher yells and I think that is very effective because some of the other Rowan kids have said the teachers they work with yell but the kids keep misbehaving. I have also learned, after reading about motivating the kids is that you have to really find something that works for you and them, for learning to occur. (Tammy, 10c)

When considering the “Learning Theory” course content, Tammy talked about Behaviorism and the theory known as “Brain-Based Learning”. For the Behaviorists’ idea of conditioning, she explained that students were clearly conditioned because they responded in a certain way when the teacher gave certain clues. For Brain-Based Learning theory she identified concepts of the brain, memory, and interest:

The other major aspect I have learned about is the brain. I have learned about neurons and how they help the body and what happens that hurts neurons and the brain. The groups discussed how certain activities can bring about certain outcomes. I have witnessed and used the information about how to engage a student’s memory and interest in the activities that my group and I have organized. We appealed to our 5th graders who had a need for help with fractions by bringing in goldfish crackers and a memory game. The memory game allowed them to interact and help each other, and get to know us. The goldfish sort of broke up the monotony of sitting, plus kids love food! By bringing the new activities and our individualized way of teaching them, we are able to meet a need (in this case help with math) in a way that otherwise would not get met, or would be difficult for one person to do. Combined with our knowledge that we are gaining about how the brain works and that not all people will be reached in the same way, with our individual ideas and opinions, we are able to successfully help the school’s need. (Tammy, 7b)

“Learning Theory” concepts were the focus of Cindi’s connections between content and experience as illustrated in her reference to Vygotsky’s theory and Behaviorism. With a recognition of the impact culture may have on education, she identified with Vygotsky’s theory:

...in the school that I attended for service-learning, there is a much different culture than that which I am used to. Here, I understand Vygotsky’s cultural cognitive theory. The way the students act and speak is directly linked to the culture with which they are brought up, just like my actions and personality have been in many ways, determined by my culture. (Cindi, 8)

Behaviorist ideas came through when she talked about conditioning:

Skinner's ideas of operant conditioning also appeared numerous times. With both kindergartners and 5th graders, students seemed to respond to punishment and reinforcement. When Kindergartners behaved poorly, they sat in time out. This made them upset, and made them behave better later on. The 5th graders responded well to positive reinforcement. Whenever they worked well, I gave them stickers, which made them want to continue to work hard. (Cindi, 8)

As described previously in the Collaboration section of this chapter, all three regular majors made the connection between the "Introduction to Education" concept collaboration and their experiences. They are mentioned here because they are part of the big picture of *content—experience* connections. Tammy saw a *collaboration—helping teacher* connection, Cindi described a collaboration work with school and help connection, and Mary talked about collaboration as reaching out to the community in a meaningful way.

Likewise, in the Diversity section of this chapter, yet to come, all three regular majors addressed specific "Introduction to Education" connections. Cindi and Tammy talked about urban schools and the child-in-context and connected them to many different diversity issues experienced in the elementary school. These connections are not discussed here because their contribution is more significant to the Diversity section. Their *content—experience* connections fit within the pattern of other connections discussed here and they would not alter the generalization or theme presented at the end of this section.

Cascading model.

When looking at the cascading model, Julie and Nina added specific content to their *content—experience* connections. Challenges Teachers Face was a topic covered in the “Introduction to education” course and Julie recognized this at the elementary school:

With service-learning I was able to go to an actual school and work with children who have faced some of the issues brought to my attention in the book. I especially made this realization in the chapter of the challenges that teachers face. Some of the children at the service-learning school may not have stable home lives or come from the traditional family setting. These children might be facing difficulties that I never imagined at their age and still must go to school and continue their education. Service-learning has allowed me to see how to work with children of different backgrounds in an urban setting. (Julie, 6)

She continued with these connections when she talked about Learning Theory concepts of discovery and reception learning. “Learning about reception and discovery is helping me and my group to plan hands-on activities to teach about the war and the soldiers, rather than simply doing reception learning. This discovery learning is making learning fun and easy for the students” (Julie, 8). Julie touched on both courses with teachers’ challenges and discovery learning.

Nina also addressed discovery learning and added direct instruction:

This project relates in some ways to discovery learning. The kids are learning about Iraq, the war, and soldiers through this process of sending letters to them. Although we are directly instructing the kids about many of the topics, the project allows them to discover and fully understand what we are doing. (Nina, 3-3)

She also included another reference to “Learning Theory” content related to behaviorism and again, conditioning:

Today’s class made me really think about the different learning theories. When I was calling on kids in class I was thinking about the verbal reinforcement. If a kid said something that was completely wrong, instead of saying ‘No’, I would say ‘Not quite’, but it could be if... and I would give a reason why. This way I didn’t discourage them from answering questions, but at the same time, I didn’t let them think the wrong thing. (Nina, 2-6)

Julie and Nina also talked about collaboration connections to experience as described in the collaboration section of this chapter. Julie connected collaboration to helping teachers and giving kids attention while Nina explained that collaboration was connected to other people who came into the school to help out “including us”.

As with the regular majors, in the Diversity section of this chapter yet to come, all three cascading majors addressed specific “Introduction to Education” connections. Julie and Nina talked about contemporary children and urban schools and connected this content to poverty, families, and gender issues. Deb presented a *contemporary children—minority* connection. Although she did not name “contemporary children” as the content, some of her words are part of the text and dialogue on contemporary children. As stated with the regular majors, these connections are not discussed here because their contribution is more significant to the Diversity section. Julie, Nina, and Deb’s *content—experience* connections fit within the pattern of other connections discussed here and they would not alter the analysis.

Synthesis: Content-Specific Connections

The six majors discussed in this section made specific *content—experience* connections. These connections are summarized below with the specific content on the left of the hyphen and the experience connection on the right of the hyphen following the same pattern used throughout this connection discussion, *content—experience*.

“Introduction to Education” content was addressed by all six majors. From the regular model, Tammy’s perspective offered: *personal management—yelling; motivation—what works for both teacher & students; collaboration—helping teachers; urban schools—lack of resources*. Cindi’s connections indicated: *collaboration—work*

with school; and urban schools—different backgrounds. Mary’s data stressed: *collaboration—reach out to community in meaningful way*. For the cascading majors: *challenges teachers face—urban setting; collaboration—kids’ attention and teacher help; and urban schools—families and culture* summarized Julie’s contribution to this discussion. Nina’s perspective offered: *collaboration—others (including us) help out at school; and urban schools—poverty*. Finally, Deb’s data focused on *contemporary children—minorities*.

Four majors addressed “Learning Theory” content. From the regular model, Tammy’s data offered: *conditioning—students respond to teacher’s cues; and brain-based learning—memory & interest*. Cindi indicated a focus on conditioning, but was more specific with: *operant conditioning—punishment & reinforcement; and Vygotsky—culture*. For the cascading perspective Nina’s connections were summarized as: *verbal reinforcement—never say “no”; direct instruction—telling; and discovery—letter writing campaign*. Julie’s data suggested *discovery and reception learning—hands-on, fun and easy*.

I have summarized these *content—experience* connections in this way to point out that all of these connections are accurate in nature. The experiences that majors connected to their course content are appropriate and demonstrate that majors were effectively making connections. Service-learning provided majors with the opportunity to accurately connect their course content to their experiences. There do not seem to be any patterns in the data that might suggest a difference between the regular majors and cascading majors’ perspectives on content specific connections.

Reflection Connections

All six majors addressed reflection, although within varied contexts. The regular model discussion will precede the cascading model's discussion.

Regular model.

Cindi addressed reflection as a part of the service process:

First, you have to plan what you are going to do. And just understanding why exactly you are providing the service is what your goal is. Then you have to do it and just provide the service and once it's over just reflect on it and think of what kind of service you provided and if the other people got anything out of it. (Cindi, 1-6-4)

Mary weighed in with the same thinking perspective, "Service-learning is when students go out into the community to help in some way, and then reflect upon their actions outside the classroom" (Mary, 4bV4). Cindi and Mary addressed reflection here as a thinking-about-service activity. Mary also spoke about reflection in the collaboration section of this document when she referred to how the majors talked and discussed things on their walk to campus from the elementary school. Walking back to campus was the best for her because the majors in her group would talk and share their perspectives on their service-learning experience.

While Cindi and Mary referred to reflection as more of a thinking-about-service activity, Tammy provided a more complex perspective on reflection. She actually named reflection implying that it was the catalyst for making the connection between content and experience, "The reflections helped me draw connections between how real the topics we are learning about come into real action in the schools" (Tammy, 5bI6). She talks about the *content—experience* connection in general, but adds an interesting insight to summarize:

I would say, first of all, we take stuff we learn in class and apply it to real life and then by reflecting on it, it makes it deeper in our mind of what we are actually doing and then I think the kids see us helping them and it might carry through that they might want to help somebody eventually. (Tammy, 1-7)

As mentioned previously, I did not name or talk about the different models of service-learning to the majors in the other model so the regular majors did not know that there was a difference or what that difference was for the cascading model. I bring this up to point out that Tammy, when describing a service-learning project, alluded to the beginning of a cascading model when she talked about how the elementary students might want to provide a service to help someone else because they saw the college majors providing a service for them. Tammy seems to move in the direction of a cascading model without being formally introduced to the concept.

Cascading model.

When considering the cascading majors, Deb saw reflection as the think-about-service activity as Cindi and Mary did for the regular model. Julie and Nina supported the reflection as catalyst perspective as Tammy did for the regular model. Deb named reflection as an activity for the kids so that the majors could get students' point of view on what they were doing. She described gym class procedures as: warm-up, game, exercises in groups, return to big circle and then they reviewed everything. "This is our time with the kids to reflect and get their perspectives on what we are doing (what they liked, didn't like, etc.). Then we can incorporate that into the next days events. Kind of like our evaluation part of service-learning" (Deb, 2-4). Reflection for Deb provided a lead into evaluation, as mentioned previously, another component of service-learning projects.

While Deb saw reflection as the lead up to evaluation, Nina and Julie saw reflection as a catalyst to connecting. Nina spoke of the integration of content and experience:

Collaboration or working with others helps students learn by integrating what is taught in the classroom with what happens in the community. The best way to learn is through doing and thus, gaining experience with community activities. The best way to learn from experience is by reflecting on what happens. (Nina, 7b)

As described in the section on collaboration, Julie presented an abstract service-learning experience as involving planning in the planning room, working out ideas, couple of people organizing things, listening to everyone, blending together and then going out to the gym and implementing the plan. She offers, “and then after we are done the service learning experience, we reflect upon it and see how our experiences tie into what we are learning” (Julie, 1,3-4). Nina and Julie saw the reflection as facilitating the connection between content and experience.

Synthesis: Reflection Connections

Two types of reflection are evident from the data. The less complex, think-about-service type and the more-involved, catalyst type of reflection.

The think-about service type is basic to service-learning and might have been implied by Cindi, Mary, and Deb to be the catalyst type, but they did not describe it as such. They referred mainly to reflection as a thinking process and did not elaborate further. Tammy, Nina, and Julie, on the other hand, named reflection as the catalyst for creating the connection between content and experience. Service-learning provided opportunities for majors to think about their experiences while completing reflection assignments with some majors naming reflection as the catalyst for making connections.

There do not seem to be any patterns that might distinguish regular from cascading model perspectives.

Elementary Connections

While the previous discussions refer to majors' connections between their course content and their service-learning experiences, all majors, in an assignment to describe a service-learning project for their future classrooms, talked about how they envisioned the *content—experience* connection for elementary students. Tammy, a regular major, explained a possible service-learning project for her future elementary school classroom. She described a community renewal project where the students would be involved in recycling, clean-up, and landscaping. The students could “relate it to the science part of the class and then (she could) have them make connections between the two” (Tammy, 1, 8-6). Cindi, also a regular major, described a fourth grade environmental service-learning project where students would plant dune grass along the beach.

In order to plant dune grass, students need to dig holes in the sand, stick bundles of dune grass into these holes, and then pack the sand tightly so that the grass is stable enough to serve its purpose. The purpose of these dunes is to prevent corrosion of the beach's sand during harsh winters, or violent storms. The dunes are needed to protect the beach, and ensure that the sand stays there. Through doing this project, students will learn about their environment, and the importance of preserving natural resources. They will also learn some simple biology involving plants and their growth while practicing teamwork and cooperation. (Cindi, 7a)

The third regular major, Mary, talked about helping her second graders fully comprehend math concepts so that they could plan games and activities to help the kindergartner students learn their math content. She explained how she and the second graders would plan; develop games, activities and songs; pair up with a buddy system to teach the kindergartners; and then return to class to discuss and illustrate experiences

with the kindergartners. Because of their efforts, the kindergartners were up to grade level for math. “The kindergartner teacher and I decided that we will implement this type of buddy system in the future as both sets of students truly benefitted” (Mary, 7a).

From the cascading model, Deb described a possible book project where her second graders would write, illustrate and assemble their own books. They would take their books down to the kindergarten and help them learn to read. She explained that, “Service-learning is an important tool for teachers to have; it helps their students retain the information that they learn in the classroom because it is used in everyday life” (Deb, 7a). Nina shared a possible service-learning project for upper elementary grades. She would have the upper elementary grade do research on poverty and its effect on kids. They would prepare presentations and a food drive and participate in service-learning by going to the lower grades to explain about poverty and collect food items. After this the upper grade students would write a reflection on their experiences. She indicated that this would be educative because, “The kids are learning something useful and valuable. And they are using the service to reinforce the idea that they had learned” (Nina, 1-8). Julie described her fourth grade “World of Holidays” service-learning project. The students would research different cultural and religious holidays and create community celebrations of their holiday with books, foods, posters, decorations and guest speakers. “This service-learning project would address the need for diversity in the school and it could make family and the community more involved” (Julie, 7a).

Synthesis: Elementary Connections

The purpose of this assignment was to have majors project themselves in to the future and try to envision themselves as planning and implementing a service-learning

project. When describing their service-learning project for their future classrooms, the majors emphasized the *content—experience* connection for the elementary students. The regular model *content—experience* connections include: Tammy with a *science—community renewal project*; Cindi with a *biology and environment—plant dune grass project*; and Mary with *math concepts—fourth to second grade buddy tutoring project*. Connections for the cascading majors include: Deb with a *writing and reading—second grade to kindergarten book making and reading project*; Nina with *poverty and its effects on kids—presentation and food drive with upper class to lower class project*; and Julie with *diversity—World of Holidays project from fourth grade to the community*.

The significance of these descriptions is twofold. The fact that all six majors named the connection between both the curriculum content and the related service experience shows that they recognize that a service-learning project should have both content and experience and that by naming both, they name the corresponding connection. This shows a level of understanding that might serve them well if they actually do choose to do a service-learning project in the future.

Second, all three cascading majors described a project similar to the ones they participated in during their two semesters of service-learning experiences. Their first semester project was an exercise video planned and implemented with the fifth graders culminating in the fifth graders showing the video to the second graders and then helping them with the exercises (also, the gym teacher used the video with other classes). For the second semester they worked with the second graders on a letter writing campaign where the second graders went to all the other classes in the school and talked about the Iraq war and asked the classes to write letters to the soldiers. They then sent the letters to the

soldiers in Iraq. Both of these projects involved reaching out to other classes in the school. The elementary students served other people with their service. Looking at the regular majors, Tammy and Cindi described projects that involved the elementary students servicing the environment, which was different from their own service-learning projects of teaching gym and helping the fifth grade teacher. Mary's project was closer in design to the cascading majors' projects with the service focused on others in the school so she also deviated from her own experiences.

The cascading majors all described service-learning projects similar to those in which they participated, while all three regular majors chose projects that were different from those they experienced. Perhaps the cascading majors simply stayed with what they knew, or were satisfied enough with the results of their experiences that they decided to replicate them for elementary students? Maybe they saw value in having one grade work with another grade, while the regular majors might not have been as satisfied with their projects so they looked for alternatives. Service-learning provided majors with enough knowledge to envision a possible service-learning project in their future classrooms with appropriate *content—experience* connections. While the cascading majors chose a format similar to their own experiences, the regular majors chose a format different from the one they experienced.

Elementary Students' Connections

While general and content-specific connections for the majors have been addressed, there are further connections that came up in the data that are examined here. These are connections that happened between content and experience for the elementary students and were recognized and written about by the majors. It makes sense that all of

these entries were pulled from the cascading majors because they were the ones involved in the cascading model, except for one entry that is discussed at the end.

Deb described a cascading service-learning experience. “A service learning experience is when you are doing something to teach younger kids in a community. An example of that would be, we are teaching kids how to stay healthy through the exercise video which they can take back to the community to teach others how to stay healthy” (Deb, 1, 5-4). She also provided another brief example, “Like, if you teach them to read a book, so they can teach someone else” (Deb, 1, 6-13).

The cascading service-learning project for the first semester was an exercise video with the fifth graders. “...we helped out in the gym class explaining the importance of working out and the different kinds of workouts, and what exercise works what part of the body. The kids then made a workout video and used it to teach the younger classes” (Deb, 8). The cascading service-learning project for the second semester involved the second graders in a letter writing campaign for the soldiers in Iraq:

Today we went to every classroom in the school and explained our service-learning project. I went around with four students and we talked to the younger grades about drawing pictures, writing letters, saying thank you and writing jokes. Some of the kids actually had a natural knack for being teachers. They loved the authority and really took pride in it. My service today made me proud of the kids and their accomplishments. You could really see how what they were doing was affecting them. They felt so mature and the ownership they have taken of this project is awesome. I did not think things would work out this well. I’m building strong relationships with the kid. Tramour has really opened up and gotten more involved probably because he has gotten more comfortable with us. He would make a great teacher. Erica also really enjoyed it and was the brave one to talk first and lead the way for everyone else. Today exemplified service-learning. The kids were teaching others about writing letters and the positive results this could have. This is exactly what we have been explaining to them. The way they have been learning about the war and how they explained it was perfect. They did an awesome job and showed what service-learning really is. (Nina, 3-10)

Deb addressed the *content—experience* connection involved with this project. “In Granger we are starting a letter writing campaign to the men over seas. This has amazing effects: the soldiers will be happy to get these from the children, and the children can get an idea about what’s going on in Iraq as well as improve their writing skills (Deb, 8).

All three cascading majors talked about the *content—experience* connection for the elementary students as Nina and Deb just described. They expressed the significance of elementary students learning the content well enough to teach others. Deb had this to offer, “The kids aren’t just learning for their own benefit, they are learning to benefit others so they’re more likely to retain it” (Deb, 1, 6-12). Her perspective allowed her to make a comparison to a tool:

Service-learning is a very useful tool to teaching students a subject, topic, or concept because the kids are learning in order to teach to others. So they feel important, kind of like they are involved in the whole teaching process, they don’t even realize all the information they are getting out of it. (Deb, 6)

Nina saw service-learning as exciting for students to share, “Service-learning gets kids enthused about learning and excited to share their new knowledge with others so it aides in the goal of getting everyone involved” (Nina, 4bV3). She also described it as educative:

(Service-learning) is educative because you are teaching kids something and you are teaching them to a point when they can teach someone else. So it’s not like they can kind of understand it. They need to have a strong grasp on what they are doing. If they don’t they are not going to be able to explain it to someone else. (Nina, 1-16-11)

Julie explained what she learned about dealing with kids and she recognized that fifth graders were actually trying to teach the second graders, not just mimic what the majors were doing:

I learned new exercises and new ways of dealing with kids and that if you break them into small groups with 5th graders and 2nd graders, the 5th graders were starting to pick up and try to teach them more than just listen to us. They were trying to help the second graders. (Julie, 1-6-5)

As described by Nina and Julie, a cascading service-learning project can be hard work with a variety of different components:

...like not only do you have to introduce the concepts to the people you are teaching it to, but then with the way we are doing it, we have to have them have such an understanding that they can go and teach it to someone else, which is a really big thing just in the classroom, but then trying to explain to them what service-learning is. Like, I'll probably have a good definition of what service-learning is, but it is a lot more difficult to explain it to someone else. (Nina, 1-3-4)

Projecting into the future to her own classroom, Nina also saw service-learning as a long term project, but worth it: She explained that the whole idea of service-learning involved introducing, developing and working on the project:

...towards the end it was really crunch time to get everything and after, have the kids show it to other kids and it was that final step to make everything worth while. It's just a big process once you really start getting into it. If you were doing it in your own classroom it would be a very long process-probably a couple of months. (Nina, 1, 6-3)

Julie also contributed to the worth of the project. She professed that service-learning was educative:

...because you get to do more than just help kids or learn from a book, you can put together and then see your work. I guess when we saw...the 5th graders working with the 2nd graders, we saw our hard work did pay off. (Julie, 1, 7-10)

Julie explained a service-learning project she might do in a fourth grade. She would have the fourth graders write a short story book, illustrate it and go and read it to the lower grades:

By having my students make a book and bring it down to the lower grades and help them learn to read fulfills 2 basic needs. First, it creates a strong sense of community in the school because the grades will intermingle and students could make friends in different grade levels. Second, this service-learning project is very similar to the one we did at Granger. It is a cascading service-learning

project not only will my students be benefited from the project but the younger grades will as well. (Julie, 7a)

Julie actually named this as a cascading service-learning project.

In a deviation of the pattern, Tammy, a regular major, also described a project similar to what Julie described previously, but there is a difference in perspective.

As an elementary classroom teacher I think that a service-learning activity that would benefit my students would be to have the older people (college students, elderly, volunteers) coming in to teach reading and math. It would be structured for kindergartners. The older kids would first be split into two groups. The younger kids would then be divided as well. Both groups would get to work with the other eventually. Reading, as I have noticed from working at Granger school is the major concern for teachers. The older kids would write easy to read children's books and maybe each child could have a copy to bring home...By having my students learn such an important skill as reading (as well as the subject matter of the reading) the older students are servicing that need as well as gaining experience with the kindergarten class. The other group that is working with the math could collaborate and play counting games with the kids, maybe have them count candy and if they do well they get to eat the candy. That way the kids will associate positive memories with both math and the older kids. This meets the need for the school because if kids like the subject they can learn better and the service-learning adults have a positive experience working with the kids...In this situation, virtually everyone involved learns and benefits. (Tammy, 7a)

While Julie talked about her students helping a younger group of students, Tammy talked about an older group of college students, elderly or volunteers who would help her students.

Synthesis: Elementary Students' Connections

All three cascading majors addressed elementary students' connections from different perspectives.

Deb defined a cascading service-learning project and she and Julie described the cascading models in which they had been participating. The content for the elementary students for the first semester was health, muscles, and exercises to work those muscles.

The experience was making the video and teaching the second graders about these topics. For the second semester, the content was geography, social issues, and letter writing while the experience involved teaching and writing letters. All three majors talked about how important it was for the elementary students to understand their content because they were going to teach it to others. Nina and Julie talked about the hard work and long term involved in a cascading project, but decided it was worth it when they saw that the kids learned the content to share with others.

Julie's example about the fourth grade making books and taking them to teach a lower grade was offered in this section and not in the previous section on Elementary Connections because Julie named her project a cascading model (in the second semester, a discussion arose in the cascading majors class that described and named a cascading service-learning project). Julie's fourth grade project described here, just like the cascading majors' service-learning projects described in the previous Elementary Connection section, all involved a group, usually older, helping or teaching another group, usually younger. Contrary to what Julie has said, all of these are not cascading models. They are missing one important element. The group that is cascaded down to (usually the younger group) also has to do a service-learning project. This element is not present in Julie's example here and it is not present in any of the cascading majors' description of a future project. The cascading model involves one group participating in a service-learning project that cascades down to where a second group is involved in doing a service-learning project also. To be a service-learning project, Julie's example would have had the lower grades involved in a service-learning project also. To be cascading, the fourth and lower graders, after reading the books that the fourth graders made, might

make some books together that could be taken to a pre-school so the pre-schoolers have a book to take home and read with their parents. That way the lower graders are also involved in service. Their content is reading and writing and their experience is making a book.

In the example provided by Tammy, a regular major, she was not the teacher of the older group, she was the teacher of the younger group. This is a different perspective than all other service-learning projects described in this chapter. Her idea opens up a different perspective because most projects are described as the teachers' class doing the serving, but with hers, the teachers' class is receiving the serving. A bit of a spin, but a possibility none the less and something to think about if students are struggling.

Organizing a service-learning project where another group comes into the classroom to serve and help a teacher's struggling students. To add a possible extension, have the serving group help the teacher's struggling students get involved in a service-learning project involving the content they are struggling with, instead of just helping them learn. That would be a cascading model of service-learning.

It should also be noted that Tammy, to my knowledge, was not familiar with the cascading model, but she designed a project similar to that model (but lacking the service of the second group as described above). It also fit the pattern named in the Elementary Connection section where the regular majors all described future service-learning projects that were different from their own experiences. Tammy was involved in teaching gym in kindergarten and assisting a fifth grade class, but her example above is different from her own experiences because it involved an older group assisting a younger group.

Cascading majors recognized and wrote about the *content—experience* connection experiences by the elementary students. They recognized that the elementary students should have a strong grasp on the content because they were going to have to teach it to others. They actually observed the elementary students acting on that content they learned. The fifth graders could explain the muscles to the students as they were teaching them the exercises. The second graders could talk to others classes, older and younger, about Iraq, the war and importance of supporting the soldiers. While students were learning content and teaching it to others, I asked myself whether the content they were learning was part of their classroom curriculum. The exercise video fit the Physical Education curriculum for the fifth graders, but I am not so sure how closely the war and Iraq issues matched the second grade curriculum. That is something to consider when choosing the content of the *content—experience* connection. What is the value of the content within the course curriculum?

Service-learning provided cascading majors with the opportunities to recognize the *content—experience* connection at work when the elementary students learned content in order to teach others.

Connection Expansion and Exceptions

There are a few issues that emerged from the data related to connections between content and experience that are worth noting: the positive and the negative, the struggle to connect and inaccurate connections.

From the regular model, Cindi described a few content-specific connections she made between content and experience and then she moved beyond the connection to assessment:

I see numerous connections between what we have been learning in class and what we are experiencing in the school. Through our organizers, we learned about the importance of collaboration in education. Our class is helping the school by collaborating with them. Also, I notice the stress on student success in the urban elementary school that we learned about in our text. I think that these are all positive connections. I feel that while it is important for the school to encompass these positive aspects, it is equally important for us, as students, to be at the school and experience these things. This gives us a chance to understand the relationships between what we are learning in the text, and what is really happening in the schools. This way we can pick up the positive things, and carry them with us, as well as understanding things that we do not agree with and learn how to not have those things in our classrooms. (Cindi, 10a)

After describing the concept connections related to collaboration and student stress, Cindi recognized and named the importance of having experiences that assisted majors' understanding of the relationship between content and experiences. She further seemed to place a value on these understandings by assigning them to a "to do" and a "not to do" list. The items on the "to do" list are the positive things to remember to do in the classroom and the items on the "not to do" list are not acceptable and should be remembered as what not to do in a classroom.

Tammy, also from the regular model, and about midterm of the first semester, indicated that she was struggling to make connections between content and experience:

Service-learning thus far has reinforced much of the information we learned on school structure and how the surrounding community affects the school. I think the reason I personally am struggling with making connections to text lessons is because we haven't learned about the psychological issues of children and effective ways of interacting with the kids and interacting is the main focus of say working with the gym class. (Tammy, 6)

While she admitted that she had made *content—experience* connections related to school structure and the community's impact on the school, she claimed she was having difficulty making further connections. A further study of her words indicates that she may have been having difficulty, but not with making connections. While trying to work with

the kindergartners and plan gym lessons, she was looking for information on children's psychological issues and effective ways for interacting with kids. These concepts were not yet covered in the course content. Her struggle was with a lack of information: she had no course content to connect her experiences to.

Two cascading majors, Deb and Nina, demonstrated inaccurate connections between content and experience. While being on target with a Behaviorism connection, Deb's connection to constructivism was inaccurate or incomplete. "The way we are teaching the exercises is a combo of 2 learning theories, behaviorism and constructivism. They are repeating what we are doing to get the exercise and then we have them do it on their own without our help" (Deb, 10b-8). The repeating of exercises can be considered conditioning, a principle of Behaviorism, but I am not sure that then doing the exercises on their own is a practice based on constructivist ideas. I would have to have more information from her to assess this connection as accurate, but as it stands alone, it is inaccurate. Also, while discussing theory and its relation to practice, I try to stress to majors that you cannot see Behaviorism or Constructivism in a classroom. You can see behaviors or practices based on Behaviorist or constructivist ideas or principles and when they communicate their connections between theory and practice, they should keep this in mind. Deb's connections between theory and practice here are not real clear. Which practice is based on which theory? I commented on the obvious connection of repeating to conditioning, but Deb might have intended something else.

Nina, also from the cascading model, made an inaccurate connection between content and experience:

The movie was a reward for working so hard during the week and with all the new information. This was an example of classical conditioning. The teacher was

providing a reward for working hard during the week and hopefully increasing the likelihood that they will work this hard on all new things. (Nina, 3-2)

Providing a reward for hard work is an example of operant conditioning, not classical conditioning. I recognized the discrepancy when reading this reflection so I made a note of it and brought it up for discussion in the following class.

Synthesis: Connection Expansion and Exceptions

Cindi, a regular major, moved into a critical thinking mode as she assessed the importance of majors having experiences that help them make the connection between content and experience. Being able to distinguish between what she wants to remember to do and not do in her future classroom moves the *content—experience* connection beyond just a connection format into a value format. The information gained from connecting content to experience is valuable enough to try and remember for her future classroom.

Tammy's struggling scenario provides insight into a struggling learner. She has the experiences that bring up questions related to psychology and how to interact with students, but she does not have the other end of the *content—experience* connection to connect her experiences to so she cannot find answers to her questions. The content part of the connection is missing, resulting in a disconnect or a struggle. I find myself asking, is it necessary to have both sides of the *content—experience* connection?

The exceptions to accuracy of the *content—experience* connection appear when there is an inappropriate connection between content and experience. Deb, in assigning a constructivist connection to a practice that was not constructivist and Nina naming a practice as classical conditioning rather than operant conditioning are examples of

connections gone awry. The value of the *content—experience* connection is effective only if the connection is accurate.

Connections Theme

Service-learning provided majors with opportunities to connect their course content with their experiences resulting in differentiated perspectives. Four majors shared their perspectives on general connections with the cascading majors perceiving their experiences from more of an active, real life view while the regular majors mentioned simply experience or service-learning. It could be that including elementary students in planning and implementing a service-learning project provided cascading majors with a different, more active perspective. All six majors shared their perspectives and accurately connected specific course content with experiences. There was no distinction between regular and cascading majors. All six majors provided their perspectives on reflection with three (two regular and one cascading) focusing on the reflection as thinking-about-service format and the other three (one regular and two cascading) named and described reflection as the catalyst for making connections. There does not seem to be any patterns that might distinguish regular from cascading model perspectives. When envisioning service-learning projects in their future classrooms, all six majors included a *content—experience* connection in their project descriptions. It seems that participating in service-learning provided them with necessary knowledge to design a project with an appropriate *content—experience* connection. While the cascading majors chose a project format similar to those that they experienced, the regular majors chose a project different from the one they had experienced. Maybe cascading majors valued their service-learning projects enough to go with the same

model when they were considering their own future classroom. In the reverse, maybe the regular models were looking for something different than their own service-learning projects because they all described a different project format for their future classroom. Critical thinking, a disconnect, and inaccurate connections were issues associated with *content—experience* connections that some majors dealt with while participating in their service-learning projects.

After all this discussion on making connections I had to ask myself, so, what is the significance of connecting course content and service-learning experiences? In order to answer this question I went back through the data and wrote down every *content—experience* connection made by majors that named an outcome of that connecting process. I found that every major named outcomes, some more than others.

The most commonly appearing outcome was learn. After that, and not as often was understand, gain knowledge, fully comprehend, reinforce, retain information, and deeper in our minds. These outcomes were part of the description of the connecting process, not the focus of the description. Majors were focused on writing about connections and that came through as I read and reread the data. That is why this category was named connections and not learning. Students were focused on the nuts and bolts of the connecting process, the content and the experiences. Outcomes were mentioned almost as a natural part of the process of connecting.

For the regular model, Mary mentioned one elementary connection outcome, fully comprehend. Tammy named content specific, reflection, and extension connection outcomes as learn and gain knowledge. Cindi had content specific, elementary, and expansion connection outcomes as understand and learn. With cascading majors, Julie

had abstract, content specific, and reflection connection outcomes as learn. Nina offered content specific, reflection, and elementary connection outcomes as learn. Finally, Deb provided one elementary connection outcome as learn/retain information. To clarify, the same outcome may have appeared more than once like Nina who named outcomes in three different kinds of connections, but named only learn as the outcome for all three. It would seem, from the perspectives of all six majors that some *content—experience* connections resulted in learning, understanding, or gaining knowledge.

This claim of learning, understanding, or gaining knowledge is supported by the content specific connections described by the majors previously in the section by that name. They did not just say that they had learned course content, they offered evidence of learning by making accurate connections between the content and experiences. Observing punishment and reinforcement and then recognizing that it makes sense to connect these to operant conditioning clarifies the accuracy of the connection and strengthens the learning. According to majors' perspectives, service-learning provided them with an opportunity to accurately connect their experiences to specific course content which produced outcomes of learning the content. Cindi offered, "Because of my service-learning over the past two semesters, I feel that I have a better understanding of major learning theories and why students learn the way they do (Cindi, 8)." That connection between content and experience, provided by participation in service-learning projects is instrumental in building a better understanding of that content.

I'll offer a closing thought to wind up this connection section. Throughout this discussion the focus has been on the connection between course content and service-learning experiences, hence: *content—experience*. I placed content first because students

usually encounter content in their text or classes before they see it in the elementary school. When I look at the name service-learning, there is something askew. It is not usually that majors participate in service and then they learn, it seems more of a process where students are introduced to course content where various amounts and complexities of this content find a home somewhere within their cognitive structure. When they participate in service-learning projects, the information coming into their mind from what they see, hear, feel and do might find a connection to some aspect of the course content already residing there (hopefully). The outcome of this connection is a better understanding of the content. The course content might make more sense if it has been reinforced by (connected to) real life experiences. So, from my perspective, the process is more *content—service-learning*. You identify the content, participate in service-learning experiences, and then learn from the connections established between the content and experience. Initially hearing the content in class could be seen as forming the boarder of a jigsaw puzzle. As majors participate in service-learning projects, the other puzzle pieces start to fill the void and begin to form (learn) the “big picture” of the concept. That connection between content and experience, provided by participation in service-learning projects is instrumental in building a better understanding of the content.

An example of this comes to mind in my conversations about the majors at Rowan College. Many of them come from middle and upper middle income families in the Northeast. They can say the words poverty, low income, lack or resources, etc., but they don't know what those words really mean. They have the concepts related to urban students barely in their cognitive structures, but enough to talk about them. When they participate in a service-learning project in an urban school, these words are better

understood and can be used more authentically. Tammy offered her own perspective on this, “The background these kids (Granger) are coming from are at the opposite end of the spectrum as me. I knew this before however just had not really experienced it” (Tammy, 4bV6). I suspect (but have no proof except my own relationship with Tammy) that participating in service-learning at Granger has given her a better understanding of life at an urban elementary school. More about the concept of diversity is discussed in the following section named Diversity.

It may also happen that majors, during their experiences, see something that does not connect to current course content. That something can find a place in their cognitive structure and future course content or discussion content may attach to that something and it becomes better understood. This is often when majors will ask questions about that something in classes following their experiences that placed the something in their mind initially. So service-learning not only provides connections between course content and experiences, it also provides connections between experiences and the something content. In this case there is a *service—content learning* relationship. When participating in service and something about it (not related to anything that has been heard before) stays in the mind, the search is on to find content that connects to that something, resulting in learning. Either way, service-learning provides opportunities for majors to participate in experiences that will assist them in building, through *content—experience* connections, a better understanding of content related to the world of elementary education. Figure 4 offers a visual presentation of the inductive development of the connection theme. Diversity is the final category to be discussed and its analysis is presented in the following section.

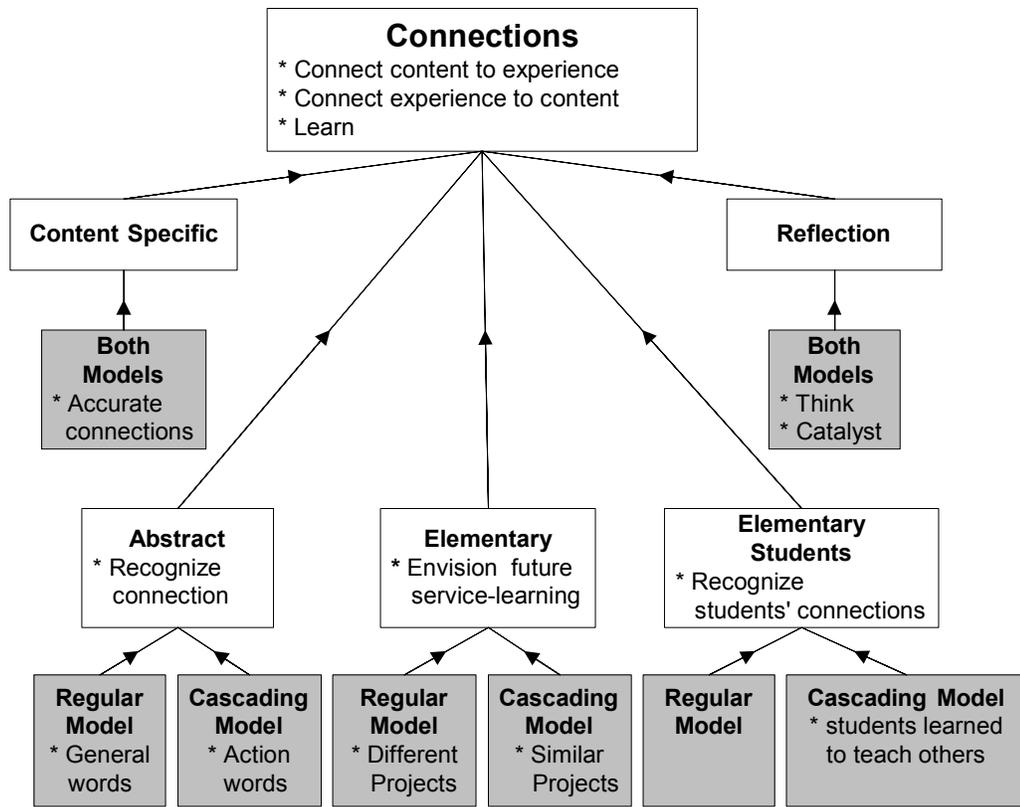


Figure 4. Development of Connection Theme.

Diversity

When I attempted to sort the data entries for this category, I realized that more than half of the entries fit under the title “different from us.” This was the title I decided to use for those entries where majors realized that the urban students, their school, and their culture were “different from us” – the Rowan majors. Of all the categories I’ve coded, this had the largest number of entries and every major had something to say about this difference. Since this category was so large I subdivided it into smaller, more specific groupings. For the overall category on diversity, I began with Urban Schools, which is sectioned into Urban Environment, Minority Issues, and Urban Students and Relationships. This is followed by Diversity and Teaching. For this category, in order to maintain a cohesive flow of ideas, the regular model does not precede the cascading model in the analysis as in past sections. Because of the size and complexity of emerging patterns in the data, I’ve integrated discussions of the two models.

This diversity category and emerging theme developed because the majors’ service-learning experiences were in an urban setting. Could the same theme have emerged if majors had been in a field placement in an urban setting? Possibly, but that does not diminish the meaningfulness of majors’ perceptions found here. I can not claim that *only* service-learning would produce this theme, but I can state that *because* service-learning was in an urban setting this theme emerged.

Urban Schools

Granger Elementary/Middle School is an inner-city school whose population, the vast majority of students and staff and more than half of the faculty, are African

Americans. It is right on the fringe of the middle and upper middle income homes that make up the community surrounding Rowan College. While Granger resides on the border between the affluent and the underprivileged, Granger students come from the eastern, underprivileged neighborhoods. There are no busses so most students walk to and from school, which for many of them means crossing a busy, five-lane highway.

In contrast, Rowan's majors mainly come from middle and upper middle income homes in the Northeastern United States. For their service-learning projects, these majors walked the half-mile trek to Granger from campus and back. They walked through the middle and upper income neighborhood until they reach Granger's playing field, the dividing line between the upper and lower income neighborhoods. Crossing that line into Granger's field brought the majors into the environment they named as being different from their own.

Urban environment.

Cindi and Mary from the regular model and Nina from the cascading model provided some insight into their perception of the urban environment. Cindi found the end-of-the-day announcements to be of interest:

My experience at the elementary school related to concepts we are learning. The school atmosphere reflected the urban surroundings. At the end of the day, there was a very serious announcement about precautions the students should take in order to get home safely. They included going straight home, and not talking to strangers. The announcement also reflected the idea that urban schools focus on student achievement. It asked the children to think about their achievements that day as well as things that they could improve. (Cindi, 2-1)

She also talked about a drug assembly she attended that related to course content discussions held in the "Introduction to Education" course, "The assembly stressed the importance of staying off drugs, and told students how to deal with people in their

neighborhood who will try to involve them in negative activities” (Cindi, 2-3). Mary also attended the drug assembly and came away with some interesting questions. She explained that musicians came to perform at the school to promote an anti-drug message. While the students had a good time screaming, dancing and laughing, she questioned whether or not the kids got the message. She related this event to her own life: “I know that when I was in kindergarten I had never even heard of dope and when I was in the sixth grade I still didn’t know what it was. Is this a result of my ignorance? Is it the product of varying backgrounds? Are these kids too young to be at this program?” (Mary, 2-3).

Nina, a cascading major, gave her impression of Granger, “The Melbourne (her name for Granger) school community was different than any community I had ever been in. The kids were allowed to walk through the halls alone to go to the bathroom or get drinks at a young age” (Nina, 10). Nina elaborated on this as she shared her perspective on Minority Issues presented in the next section.

The minority issue.

Among the five majors addressing minority issues, Nina, a cascading major, made connections between what she experienced in the elementary school and the content she had been learning in class about equal opportunity and segregation:

This week’s lesson relates to what we are studying because at Melbourne everyone is African-American or another minority. Melbourne is working hard to provide equal opportunities and a good education for their students. They are consciously making an effort to increase the quality of education. 50 years after Brown vs. Board of Education the schools are still segregated. I haven’t seen any white children in this school and although this school isn’t only for black children, no white children attend. Greater studies for equality need to be made and hopefully one day Melbourne will be mixed with black and white children. (Nina, 2-4R)

She continued the discussion by explaining that the school wasn't a diverse school because the students were all African Americans, but it was different from her own background. She wrote about how some of her observations led her to believe that some of the kids had more money and care than others.

Deb, also from the cascading model, weighed in with a rather interesting statement after the first day in the elementary school. "This school is very different from what I am used to. I was in the minority. There was not a single white kid there which is diverse from the norm which is not diversity" (Deb, 2-1). After the second day in the elementary school, Deb had this to offer:

When I was there the last time I felt really out of place because other than my classmates I was the only white girl there. But I am getting used to it. I think it will take me a while to get used to the names. They all have difficult names to pronounce and spell and I know that I'm going to butcher them. (Deb, 2-2)

From the regular model, Tammy, in a bullet point comment on connections, admitted that she was nervous about working in an unfamiliar place, "Connections: school lacking the resources and equipment than ones I am familiar with. Diversity is present in this urban, elementary school. I feel somewhat nervous about working at the school mostly because it is so unlike anything I am used to" (Tammy, 10a). Also weighing in on minority issues with a role model focus, regular major Cindi, provided her unique view as an African American:

One thing that we have learned about in our classes here is the effects of role models for students. And I don't know - the school where we teach our SL, it's mostly minority students, well - they're not minority because they are mostly African American students, but I feel like I personally have an advantage because they can look toward me as more of a role model because I am like them in some way and I am educating them and helping them, so there is more of a connection there. (Cindi, 1-13-12)

The third regular major, Mary, also addressed the minority issue. She seemed to travel a journey of awakening from the beginning of the first to the end of the second semester.

She shared an early perspective on what it felt like to be a minority:

I have never worked in an experience like this where I am actually the minority in a group. So I find that there are certain instances where the kids will sort of single me out, and the other teachers as well, simply because we are the minority now and it feels a little different to have the shoe on the other foot. So, and in other cases, the kids are just kids, they play like other kids and it is interesting to just watch them. (Mary, 1-3)

In the middle of the first semester, when recording observations and reflections, Mary wrote this isolated statement as a bullet point, “Strange to see white minority” (Mary, 1a). At the end of the first semester, she offered more insight into what she was thinking by that time. “I am no longer afraid of the idea of teaching in an inner-city public school...I am now more open to the idea of teaching students who aren’t from middle-class suburban families” (Mary, 4bV6). In the beginning of the second semester she shared her former perspective on urban students and what she had learned:

Well, I always pictured every student would have a gun in one pocket and a knife in the other and they were just horrible people and they are not. They are so not! They are the cutest little kids, they are just like any other kid. You know, you set them in a big room, they are going to start running around and I felt like I am more open to teaching in different types of environments. It had to be a private school, middle class, white suburban kids. Now, I mean, those kids are great, I love them. (Mary 1-8)

And finally, at the end of the second semester she wrapped it all up with, “Service-learning is a great way to get out of the Rowan College bubble to see normal life in (the city)” (Mary, 5bI5).

Urban students and relationships.

When looking at diversity, Julie, a cascading major, seemed most focused on the children in an urban environment. After her first experience at the elementary school Julie wrote, “We are working in a school where many of the children come from single parent homes, are raised in untraditional settings, and who are faced with poverty” (Julie, 2-1). Later in the semester, seemingly speaking from a personal connection perspective, Julie came to the realization that,

Some of the children at the service-learning school may not have stable home lives or come from the traditional family setting. These children might be facing difficulties that I never imagined at their age and still must go to school and continue their education. Service-learning has allowed me to see how to work with children of different backgrounds in an urban setting. (Julie, 6)

With that same focus on a personal view, the end of the second semester brought this perspective, “Service-learning has helped to expand my view on the world. Not everyone comes from the same background as me and some children have had to grow up far more faster than me” (Julie, 5bV6). As for relationships, Julie offers “... I was able to work closely and build relationships with students from different backgrounds from my own” (Julie, 4bV6).

Tammy, also a regular major, recognized that the elementary students needed attention:

We are learning about the “child in context”. From the two experiences in the gym that we had I have begun to notice that some of the children will demand more attention than others but the benefit of there being so many of us to supervise will make it better for the class. (Tammy, 2-2)

She also addressed the relationships she established. “More than anything I just broadened my worldview through the people I met and the situations I was involved in” (Tammy, 5bv6).

The third regular major, Cindi, talked about the children in this urban school, and she related this experience with her own elementary school experiences. She offered a unique perspective by admitting that her elementary school could have learned something from Granger.

Service-learning has impacted my learning about the child in context. Working in an urban school, I gained an understanding of the possible backgrounds of these students. This gave me a better idea of how to communicate and relate to the children. Working in this setting also allowed me to contrast the urban school setting with the suburban setting in which I was educated. I was able to recall methods and aspects of my schooling that I thought were positive as well as observe things in the urban schools that would have been beneficial in my suburban school. (Cindi, 6)

Cindi also talked about relationships and the importance of connecting to each child.

For most of us, this setting is something that I am not accustomed to, and generally, urban children are not like the children that I am used to dealing with. I believe that the most valuable thing to remember about the child in context is that all children are different and come from different backgrounds. It is vital to make a connection with each child and relate to them in a way that they will understand. Only that way can you form a relationship that is conducive to successful education. (Cindi, 10a)

Synthesis: Urban Schools

This section synthesizes participant perspectives on the Urban Environment, Minority Issues and Urban Students.

Urban environment.

Cindi, Mary and Nina had data entries that addressed particular, tangible aspects of the urban environment at Granger Elementary/Middle School. Cindi mentioned the afternoon announcements reminding students to be careful going home and about the drug assembly. Mary also talked about the drug assembly, but with a lot more detail and accompanying questions. She observed that the students were having a good time

laughing, dancing and clapping, but she wondered if they got the message. She stated that she did not know what drugs were even in the sixth grade and she was at the drug assembly with kindergartners through fifth graders. She pondered whether it was her ignorance or their different backgrounds that accounted for the age discrepancy in knowing about drugs. Nina spoke about the elementary kids who were allowed to walk alone through the hallways. While Cindi and Nina gave descriptions of tangible events in the urban setting, Mary found the drug assembly to be a source of reflection to contemplate the difference between her background and that of the urban elementary students. The urban environment provided a setting where majors could notice and/or contemplate tangible aspects of life in an urban school.

Minority issues.

Five majors offered their perspectives on minority issues at the elementary school. Nina and Deb from the cascading model and Mary from the regular model recognized that the elementary school was not diverse because all the students were African American. Because of this, they, the majors, brought racial diversity to the school and they were part of the white minority. Mary mentioned that the shoe was on the other foot and it was strange to see white as the minority. Tammy said that diversity was present at the school (she did not explain how) and Cindi began by describing the elementary students as the minority and then reversed and said that they were not the minority within the school, but the majority, because the majority of them were African American.

Deb, Tammy and Mary were willing to name their feelings at the beginning of their service-learning experiences as out of place, nervous, and afraid. Nina and Cindi were more fact and observation oriented and did not mention their feelings at this time.

All five majors seemed to adapt where needed as they continued on with their service-learning projects. Most did not mention minority issues after their second week, but Mary seemed to travel a journey of awareness from fear to being grateful for being forced to step outside the bubble and experience normal city life. Service-learning in an urban setting provided opportunities for majors to experience, address and come to terms with minority issues. While five of the majors addressed the minority issue in particular, Julie from the cascading model did not, but she did talk about urban students having a different background from her. Julie seemed more focused on the children in an urban school which is discussed next.

Urban students and relationships.

Three majors, one cascading and two regular, addressed this topic. Under this title of urban students is where most of Julie's data entries fit. Julie, a cascading major, seemed to be really concerned about and focused on urban children. She kept mentioning issues related to them and then compared these issues to her own life. She named some of the issues: poverty, single parent families, non-traditional homes and non-stable homes. She explained that they had to deal with things she never imagined at their age and yet they got up and went to school and some of these urban children had to grow up faster than she did. She almost seems to admire these students for their resiliency. It was important, she found, to work closely with children and build a relationship with them. She admits that service-learning in an urban setting expanded her view of the world and taught her how to work with children from different backgrounds. Tammy, a regular major, seemed to agree as she mentioned that her view of the world broadened through the people she met and the situations she was in. She recognized that the students really

needed attention and she was grateful that so many majors were there so that they could give attention to the students.

Cindi, also a regular major, contrasted her suburban upbringing to the urban students' experience of growing up. She suggested that there were things the urban school could learn from the suburban school and likewise, the suburban school could benefit from input from the urban school – in somewhat of a sharing relationship. She is the only major who mentioned that the urban school might have something to offer other institutions of learning. Her perspective on this matter almost parallels the goals of a service-learning project. It is not that the servers move into a setting to save or fix a situation, but that both servers and receivers work together to solve problems. While other majors were quick to see and report the flaws of the urban school, poverty, drugs, and lack of resources, Cindi came through with recognizing that the urban school, while flawed, also had something to offer a suburban school. Whether the other majors may have recognized that or not, Cindi is the only one who noted it. Cindi also explained that all children were different and that for education to be successful, the teacher has to connect with and form a relationship with each child.

While Julie focused on students and she and Tammy declared that service-learning helped expand their view of the world, Cindi was more focused on connecting her service-learning urban setting with the suburban setting in which she grew up. Service-learning provided opportunities for majors to recognize that urban students were faced with some challenges that were different from their own experiences. It also provided them with experiences that assisted them in gaining knowledge on how to work

with urban students resulting in the understanding of the importance of building relationships with students.

Summary: Urban Schools

Service-learning provided opportunities for majors to experience and reflect upon diversity issues within the context of an urban elementary school. It allowed them to broaden their view of the world of elementary education. When examining the data on urban schools, there did not seem to be any patterns or differences between the regular and cascading models.

Diversity and Teaching

In addition to discussing diversity issues of urban environments, minorities, and urban students, majors explained what these urban school issues and experiences offered them as future teachers. All six majors shared their perspectives on diversity and teaching.

From the regular model, Cindi said she learned that teachers must connect with each student.

I have learned that children today are all different. They come from a variety of backgrounds. Economic and social status, culture, and home setting all have an effect on a student's performance in school. This has made me realize that teachers must find a way to connect with each different student. Students will learn better if they can connect with their teachers. (Cindi, 10)

Mary presented a reminder she wrote for herself in her future classroom related to gender issues and disabilities, "Remember: need to teach EVERYONE; boys and girls ARE different but they can achieve just as much; don't use a student's disability as an excuse; just because a child says that they can't doesn't mean that they are right" (Mary, 10a).

Tammy, also a regular major, believed that the teacher should provide an opportunity for each child to be successful.

I am so excited, though, to be in the school and observing how the school works and learning what works and learning what works well and what does not. Children are coming from all different living and learning styles, as a teacher, one should use every possible resource available to make sure that each child receives an equal chance to succeed. (Tammy, 10a)

From the cascading model, Julie continued her personal connection perspective as she explained that a teacher should be aware of changes that might interrupt the educational process, “Service-learning has made me see that not all students come from stable backgrounds and even the smallest changes can disrupt a learning environment” (Julie, 5bV1). She also indicated that a teacher should understand her students well enough to maximize their learning potential, “Through this course I have realized that not every child has an easy childhood, but they must still go to school and learn. I must also be able to understand the lives of my students and still find a way to give them the best education possible” (Julie, 10, 1).

Deb, also a cascading major, shared the insight that if a student doesn’t respond as she, the teacher expected, then as the teacher she should look a little deeper for answers to explain why not.

I want to compare my book smarts and my own experience and bring that to my classroom. I have to remember that not all kids have come from the same background that I have and realize that if they are not responding the way I think that they should to a particular situation that should be a warning signal to look a little deeper into their life. (Deb, 10a)

Nina, the third major to address diversity and teaching, talked about issues that should be taken into account when writing up lesson plans. “An additional thing I learned through the use of organizers and service-learning deals with the location of the school. It

is an urban school and the backgrounds of the kids are diverse and poverty is definitely an issue. Again, these are things that need to be taken into account when thinking about lessons” (Nina, 6). She also addressed learning styles, “Teachers must understand that people come from diverse backgrounds and everyone learns in a different way” (Nina, 4a). Different philosophies were touched on as content for the “Introduction to Education” course. Nina referenced both Dewey and Social Reconstructionism when she was referring to trying to find her own philosophy of teaching. “Learning about the different philosophies of teaching was interesting, and I could see that mine would probably be a combination of all of them. I want my students to learn through doing, but at the same time, I want my students to develop a sense of social responsibility (Nina, 10). Nina also addressed gender issues as an aspect of diversity. She went into some detail about the different behaviors of boys and girls and what she might do about it as a future teacher.

A big issue in Melbourne (her pseudonym for Granger) is gender issues. It seemed that many of the girls were hesitant to participate vocally, where the boys were more outgoing. I think this is a prevalent issue at Melbourne. The girls tended to try and fit the once-traditional roles. They were quieter, dressed neatly, and weren’t as outgoing as the boys were. The boys too seemed to be aiming for the loud, rowdy stereotype. If I were a teacher in the school, I would find it essential to try and draw out the girls, and make sure the boys weren’t dominating over them, while still giving them equal attention. In the gym class, there are a lot more girls than boys, but the boys definitely make themselves more noticed. Through the organizers, I have seen all the different roles that girls and boys try to fill, and I also saw things that I should not do, in order to give each child the best chance of being heard in the classroom. (Nina, 6)

Three majors talked about the impact of participating in service-learning projects where the settings were different from their own elementary school experiences. Julie, cascading model, felt lucky to be in a different setting and was glad to work with a class with a reputation for bad behavior. “I feel that I am lucky to spend my service-learning

experience in a school setting that I have not had experience in before. I am glad that we got the fifth graders who had been known to be disruptive, because I feel that they can really benefit from our presence in their class” (Julie, 10a). Cindi explained that a different environment offered a greater perspective, “I feel that it was somewhat beneficial for us to be involved in an environment that we were not necessarily used to. This has given us the opportunity to get a greater perspective of teaching. This sort of experience prepares us better for our potential classrooms” (Cindi, 10c). For her, different environments also broadened expectations:

Maybe for us, more for the students, I think especially because of the setting that we are teaching and it’s so different that most of us were brought up in and the kind of schools we grew up in. So, just the experience in a different setting just lets us know what we can expect in the future and get a better understanding of different types of schools. (Cindi, 1-4-11)

Mary also addressed different environments and the impact on her as a future teacher.

She again used the word forced.

I think that for us as future teachers, it was helpful just to be forced into different environments that we never thought we would experience. I never thought I would be teaching in a gym class before. And have to think on your feet with ideas that...no one really thinks of lesson plans for gym but it is something we have to be able to do. We really had to be as creative as possible to keep those kids interested, to keep them from running wild. It was just interesting to have to think WAY outside the box. (Mary, 1-9)

Synthesis: Diversity and Teaching

After dealing with the issues of differences and diversity, all six majors had something to share on diversity and teaching and how their experiences in an urban elementary school impacted their view of teaching.

From the regular model, Cindi said that she had learned that children are all different and that many factors have an effect on students’ school performance. She

suggested that students will learn better if they connect with their teachers. Reminding herself that EVERYONE needs to be taught, Mary, another regular major, indicated that boys and girls are different, but both can achieve. She also indicated that students' disabilities should be accommodated, but not used as an excuse. Tammy, the third regular major, pointed out that children come from different living and learning styles. It is the teacher's responsibility to utilize every possible resource in order to ensure that each child receives an equal chance to succeed.

Julie, from the cascading model, continued with her personal connection perspective. She recognized that for students from less than stable homes, changes may disrupt the learning environment. She also declared, like Tammy from the regular model, that as a future teacher she must understand her students' lives and then find a way to give them the best possible education. Deb, also cascading model, admitted that she wants to bring her book and experience knowledge into her classroom with her. She made the connection between the two and valued the comparison of both of them as possibly informing her in the classroom. From her perspective, students who were not responding as she expected should be a warning to her to look deeper into their lives. With this insight, Deb seemed to be saying that rather than judge students for an unexpected response, she should look for the reason for that unexpected response. She envisioned the teacher as less judge and more inquirer.

The third cascading major, Nina, also insightfully described the planning role of the teacher. She suggested taking the location of the school and the background of the kids into account when planning lessons. With this focus on knowing her students, she seemed to advocate teaching children the content, not teaching the content to children.

Nina also explained that teachers should understand that everyone learns in a different way because of their different backgrounds. She made a connection between philosophical course content and her experiences by stating that her personal philosophy of teaching might include a combination of different philosophies. She proceeded to name the practices of learning by doing and social responsibility. Learning by doing can reasonably be related to Dewey and social responsibility to Social Reconstructionism. Nina was the only major to project her *content—experience* connection into an outcome of social responsibility. While others talked about helping the teacher, teaching the students and serving the community, they did not go as far as naming this outcome.

It seems that all the majors, at some point during their reflective activity, saw themselves as serving and contributing to society. Nina and the other cascading majors had the added benefit of experiencing the cascade as they observed the elementary students serving and contributing to society. Contributing to society can lay the foundation for recognizing social responsibility. Nina also addressed the reluctance of girls and the dominance of boys in an elementary setting. She indicated that she would try and do things that would draw out the girls and calm down the boys giving them equal focus. She admitted that she learned both things to do and things not to do in reference to gender issues.

While trying to work with urban students and teach them, majors discovered some teaching principles to live by in the future, no matter the setting. From the regular model, Cindi found that students were all different and that a teacher should connect with each child. Mary declared, teach EVERYONE. Tammy indicated that giving everyone an equal chance and all possible resources would ensure success. From the cascading model,

Julie said that getting to know kids would maximize learning and changes can disrupt learning. Deb recognized that kids come from different backgrounds and if one is not responding as expected, look for reasons why. And Nina suggested that teachers should teach the child the content, not the content to the child. She also talked about her possible personal teaching philosophy as a combination of them all, but focused on learning by doing and social responsibility. Looking at what majors discovered as teaching principles, it is interesting to note that all of their suggestions would apply to almost any students in any classroom in any setting. Maybe by stepping out of the Rowan College bubble, majors were better able to experience, question, and assess education from a different (urban) perspective. Service-learning in an urban setting, provided majors with opportunities to participate in educational experiences within the context of an urban school which assisted them with identifying their own teaching principles. While these principles were developed within an urban setting, they are general in nature and thereby would apply to any setting in the world of elementary education.

This is the only topic in this diversity section that might indicate a difference between the regular and cascading majors. When looking at regular major perspectives, diversity and teaching seemed to take on a general type of description. Teach EVERYONE, kids are all different, connect with each child, use every resource, and equity are all issues that were experienced and noticed. They are somewhat general in their nature and almost everyone came to these realizations somewhere during their service-learning experiences. Even Julie from the cascading model partially fit into this mold with her perspective on getting to know kids to maximize learning. Deb and Nina from the cascading model brought up a few issues that required a bit more insight on their

part. They might have gained this insight because they participated in a cascading service-learning project that involved them working with the elementary students to accomplish a service goal. Deb suggested that she should recognize a child not meeting expectations as a warning sign to look deeper into the life of the child. Nina advocated teaching the child the content, not the content to the child as she began developing her own philosophy of teaching. Julie recognized that for students whose lives might not have much stability, changes can disrupt the learning environment. All three of these majors seemed to acquire a deeper insight into diversity's impact on teaching.

Again, might students have experienced the same outcomes if they had been in a different, more familiar setting? The urban setting offered an opportunity (or forced if considering Mary) for majors to step outside their bubble existence and experience life in a setting different from what they were used to. It is this disconnect from their familiar bubble that might have allowed majors to take a fresh and possibly new look at the world of elementary education. This is further discussed in the concluding chapter.

Julie, from the cascading model, acknowledged that she felt lucky that her service-learning experience was in an urban setting and she was glad to work with a class with behavior problems because they might benefit from the extra help. Cindi explained that service-learning in an unfamiliar environment provided the opportunity to get a greater perspective of teaching and a better understanding of different types of schools. Mary used the "forced" word again when explaining how she ended up in an urban school for her service-learning experience. I think she might not have chosen a gym class in an urban setting if she was given a choice, but since she was not, she felt forced. By being forced she experienced thinking on her feet, lesson plans, and being creative to

reach kids and thinking outside the box. She may have been forced, but she admits it was helpful. Service-learning helped majors to realize that there were benefits to participating in service-learning experiences in an urban setting.

Diversity Theme

Majors participated in service-learning in an urban environment that was different from each of their own elementary school experiences. They had to deal with minority and urban student issues while reflecting on how diversity affects teaching. Service-learning provided majors with opportunities to experience, grapple, come to terms with, learn and benefit from issues related to diversity. Figure 5 offers a visual presentation of the inductive development of the diversity theme.

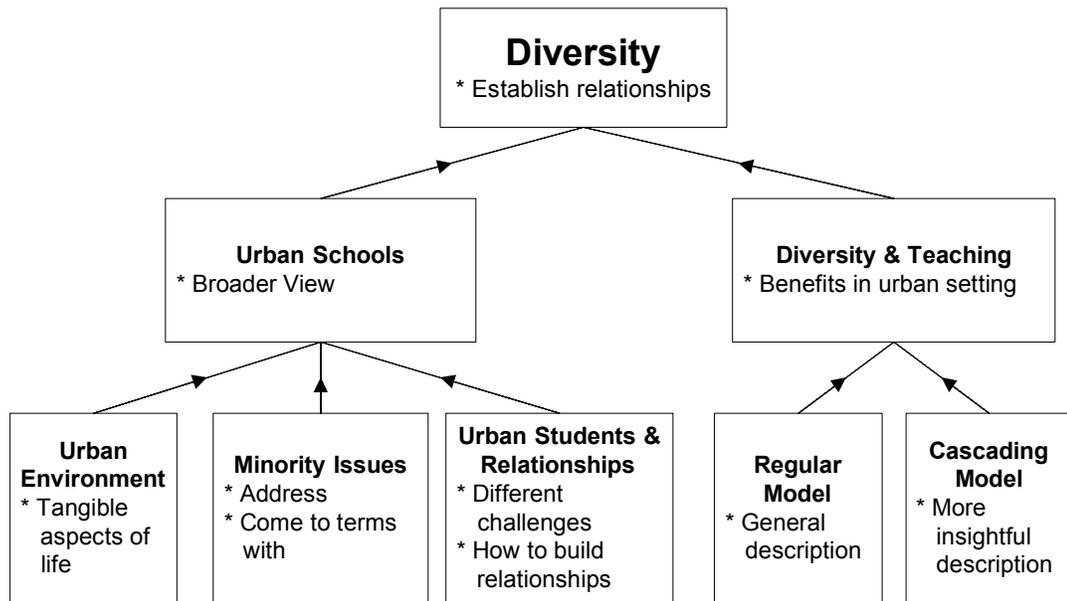


Figure 5. Development of Diversity Theme.

Conclusion

Data were collected for two semesters, inductively analyzed into categories and then synthesized into the themes: collaboration, reciprocity, connections, and diversity. This story emerged: Because they were participating in service-learning, elementary education majors collaborated with the community while establishing reciprocal relationships which helped them connect their course content to their service-learning experiences while building relationships with others in an urban setting. The next chapter will offer a summary and conclusions of this analysis and synthesis process.

Chapter 5: Summary and Conclusions

When beginning this inquiry into the sense elementary education majors make of their service-learning experiences, I tried to be open to their voices and glean the meaning of their perspectives on their service-learning experiences. Not only did I want to present a thorough and credible qualitative study that would add to the literature on service-learning, but I also wanted to know what these students thought. Each fall semester over the last seven years I have invested time, effort and heart into incorporating service-learning experiences into teacher education courses. I have done this because I work on the assumption that service-learning will provide beginning majors with a more-informed knowledge base on which to build an educational philosophy and practice. This knowledge base includes personal, professional, and social growth along with more obvious academic, intellectual growth that is usually the focus of college level service-learning experiences. Preparing future teachers to one day step across the threshold into their very own classroom with an informed knowledge foundation in all four areas is a challenging task. Is service-learning justifiable and effective enough to enhance the growth of that knowledge base or does it hinder in some way? I have gone to the students themselves for some insight.

I begin this chapter with a summary of the themes in each of the four analysis categories: collaboration, reciprocity, connections, and diversity. Connections to the reviewed literature and conclusions are offered that synthesize the themes and describe how they answer the research questions. This is followed by a discussion of the different models of service-learning, insights, and recommendations for future research.

Collaboration

Service-learning in teacher education courses provided majors with opportunities to collaborate, both with peers and the community, allowing them to gain insight into the world of elementary education. Service-learning helped majors bridge the gap between content as read and content as lived and learned. A concept read about and discussed in the *Introduction to Education* course was collaboration with the community. By engaging in the act of collaborating, majors learned its benefits. The regular majors, Mary and Cindi, connected course content on collaboration with the real world of elementary education and were able to project themselves into their future. They indicated that they would collaborate and use the community as a resource enabling their students to reach out to their communities in a meaningful way. The cascading majors, Julie and Nina, worked directly with students on service-learning projects and seemed to offer more specific insights into the world of elementary education. Julie began her own teaching philosophy as she talked about components of an effective learning environment (involving, encouraging, and giving responsibility to students) and the importance of reaching every child. For Nina, service-learning helped her discover that collaboration with the community is important because outside groups can provide support for the elementary students (as Rowan majors did) and contribute to a successful classroom that is organized and structured. All majors said that participating in service-learning left them with the feeling that they made a difference. Collaborating with the community engendered a *major—community* relationship

Service-learning offered majors the opportunity to participate in and assess what it means to collaborate with peers in an elementary school context. Mary, the only regular

major to address this issue, seemed to appreciate the diverse perspectives offered by her fellow Rowan College peers. She was also able to test her theory on collaboration. The cascading majors were almost forced to collaborate because they had to plan and execute a service-learning project with the elementary students. They all addressed being pressed for time while each focused on a different aspect of the experience. Deb focused on the details of developing and implementing the project while Nina seemed to appreciate the synergy involved in listening to and deciding upon goals and tasks for their joint project. Julie offered a progression of self reflections while she grappled with issues of control, leadership and flexibility. Service-learning provided majors with opportunities to build relationships with their peers and the school community of teachers and students through collaborative efforts during service-learning projects.

Reciprocity

Reciprocity was addressed by all six majors who participated in this study, but the regular majors had more data entries and offered more insight on the reciprocal nature of their service-learning experiences than did the cascading majors. They saw a simple *majors—school need* relationship where majors gained experience while meeting teacher/student needs. For the cascading majors, the reciprocal relationship might not have been as clear because they were involved in a more complex relationship of *experience—need—experience—need*, which is discussed later in the cascading model section. Service-learning, in this study, helped to establish a reciprocal relationship between the college and the community with this relationship represented as: *majors—teachers/students* or on the goal of the relationship, *experience—need*, where majors gained experience in an educational setting while they were meeting elementary teacher

and students' needs. This reciprocal relationship was intended to be a *two—way, win—win* situation for both sides. The regular majors seemed to value their *experience—need* reciprocal relationships with each major describing a different outcome. Tammy saw this relationship as a stepping stone to becoming a teacher while Cindi found that she gained a better understanding of the teaching profession. Mary found that the reciprocal relationships she established evolved into personal relationships. Service-learning provided majors with opportunities to learn about teaching and establish *experience—need, major—teacher, major—student* relationships that could turn into personal relationships.

Connections

When considering connections, service-learning provided majors with the opportunity to connect their course content to their service-learning experiences resulting in a *content—experience* relationship. Majors recognized abstract connections between content and experience and they identified the content part of this relationship as text or course topics. The regular and cascading majors differed in how they perceived the experience part of the relationship. The regular majors named experience as experience or service-learning. The cascading majors named experience with more action oriented words like: do, feel, try, alive, action, real world. They were involved in a more active, hands-on, learning environment as they actively worked with the elementary students to plan and execute a service-learning project together. Deb added an after-service college class discussion to the connection as she described a *content—experience—discussion* relationship. Julie explained that experiencing content in the elementary school made the content real.

Majors who participated in service-learning were able to accurately connect their course content to their experiences and learn the content. This claim to learning, understanding or gaining knowledge is supported by the content specific connections previously described by the majors. They did not just say that they had learned the content, but they offered evidence of learning, by making accurate connections between content and experiences.

When describing a possible service-learning project in their future classrooms, cascading majors offered projects that were very similar to those (cascading) projects they had experienced while the regular majors all offered projects that were different from those they had experienced. The cascading majors talked about similar scenarios where older students help younger students. While this was not a true cascading model because there was not a service project at the lower level, it offered a cascading process. The regular majors described projects that were different from their regular projects. In either situation, outcomes of their service-learning experiences were effective enough that majors were able to describe viable projects for their future classes.

Cascading majors recognized and wrote about the *content—experience* connection of the elementary students. They recognized that the elementary students needed a strong grasp on the content if they were going to have to teach it to others. They observed the elementary students acting on the content they learned. Service-learning offered cascading majors the opportunity to recognize the *content—experience* connection at work when the elementary students learned content in order to teach others.

Cindi, a regular major, valued her *content—experience* connection enough to recognize that the practices she observed were positive and negative. The positive she

would try and remember to use in her future classroom while the negative she would try to avoid. She did not go into specifics.

At the beginning of the first semester Tammy said that she could not connect content to experience. It seemed that maybe she was looking for educational psychology content to explain students' behavior. She did not yet have that content in her prior knowledge so there was nothing to connect the behaviors to, resulting in a struggle for her to try and make connections. Deb and Nina actually made inaccurate connections between content and experience involving conditioning and constructivism.

Reflection is a major component of a service-learning experience. Two types of reflection have emerged from the data. The less complex, think-about-service type and the more-involved, catalyst type of reflection. The think-about-service type is basic to service-learning and might have been implied by Cindi, Mary and Deb to be the catalyst type, but they did not name it as such. They referred mainly to reflection as a thinking process and did not elaborate further. Tammy, Nina, and Julie named reflection as the catalyst for creating the connection between content and experience. Service-learning provided opportunities for majors to think about their experiences while completing reflection assignments with some majors naming reflection as the catalyst for making connections.

Diversity

Service-learning in an urban setting provided majors with opportunities to experience, grapple with, come to terms with, learn and benefit from issues related to diversity. As mentioned previously, this theme developed because majors' service-learning experiences were in an urban setting. The urban setting of the elementary school

allowed majors to experience, address and adapt to minority issues. Nina mentioned minority issues and then moved on to other issues. Deb and Mary came to the realization that they were in the minority. Tammy focused on the lack of supplies while Cindi expressed a desire to be a role model. Mary traveled her own journey of awareness while she, Tammy and Deb named their feeling about being a minority. Nina and Cindi did not name feelings, but were more fact and observation oriented. Within a few weeks, majors adapted to being in the minority and it was not mentioned again, except for Mary, who took a longer journey to awareness and resolution of minority issues. Participating in service-learning in an urban school offered majors the opportunity to experience and reflect upon diversity issues in the context of an urban elementary school. Majors were able to gain a broader view of the world of elementary education while establishing *majors—diverse others* relationships. Julie, Cindi and Mary addressed the benefits of participating in service-learning in an urban setting. Service-learning provided opportunities for majors to synthesize teaching principles from their experiences at an urban elementary school. While regular majors addressed general types of descriptions, the cascading majors were a bit more specific and insightful in their developing principles.

This analysis suggests that interaction has an impact on majors' perspectives. The more interaction with teachers and students, the more, or deeper, insight gained on diversity issues. The data from this study support this assertion since the cascading majors seemed to offer a bit more specific and deeper insight into teaching as it was impacted by diversity. Service-learning offered majors an opportunity to interact with

teachers, students, administrators and others in an urban setting enabling them to adapt and establish relationships with these individuals.

Insight

After analyzing about three-fourth of the data I started to see a pattern emerging across different categories and themes. There was a back and forth, *left—right* connection presenting itself in each category. Collaboration had connections between the college and the community or, more specifically, between the majors and teachers: *college—community* and *majors—teachers*. In the Reciprocity category there was a reciprocal connection between majors' experiences and meeting a school need: *experience—need*. In the Connection category the connection was between the course content and the service-learning experience: *content—experience*. There did not seem to be a similar connection in the Diversity category until further analysis of the data indicated that interaction was the linking factor to connect majors and urban teachers/students in a *college major—urban others* connection. While contemplating these back and forth, *left—right* connections throughout the data it occurred to me that these connections were identifying relationships. There are relationships between the majors and the community, between majors' service experiences and meeting a school need, between majors' content and their real world experience, and between majors and others in an urban setting. Service-learning has provided majors with opportunities to establish personal and cognitive relationships. Because of establishing these relationships, majors learned more about the world of elementary education, its content, people, and settings.

True to my nature, I continued through the analysis and synthesis of my data to look for a real world representation of what I was finding. I have referred to the back and

forth, *left—right* orientation of the connections throughout the analysis: *content—experience; majors—teachers; experience—need*; and so forth. I was struggling to come up with a back and forth, *left—right* representation of the analyzed data because my mind always searches for a real world representation of more abstract concepts. The literature offered some suggestions for service-learning including: bridging the gap, linking, connecting, and filling the gap. With more thought I realized that service-learning is not a connector and it is not a filler. It is more of a catalyst for interaction. Interaction requires a back and forth, in and out of action and reaction, dialogue and communication. Majors do not just connect to teachers, they interact with teachers. Majors' service experiences do not just connect to the community need, they interact to meet the community need. Content does not just connect to experiences, rather it interacts with content woven in and out of experiences and experiences woven in and out of content. These relationships are woven in and out, intermingling and interacting. Because of this, I abandoned the search for a simple *left—right* representation. Moving on and contemplating the interaction and weaving in and out brought to mind a tapestry.

A tapestry has horizontal and vertical threads woven in and out to create a big picture. I could imagine that a completed patchwork tapestry might symbolize a major's college life in the teacher education program with each of his/her four years represented by one quarter of the tapestry. The horizontal threads would represent majors, the college courses and content while the vertical threads would represent the people, settings and experiences outside of the college related to teaching. Each of the participants in this study would have four patches in the freshman year portion of their tapestry symbolizing relationships established because of their service-learning projects.

There would be a collaboration patch of tapestry resulting from the interaction of majors (horizontal threads) and the community of teachers and students at the elementary school (vertical threads) identifying a *majors—community/teacher/student* relationship. A portion of Tammy’s collaboration patch might look like

Figure 6 where the horizontal threads represent the different days Tammy went to the elementary school and the vertical threads represent the community members, teachers, and students she collaborated with on those days.

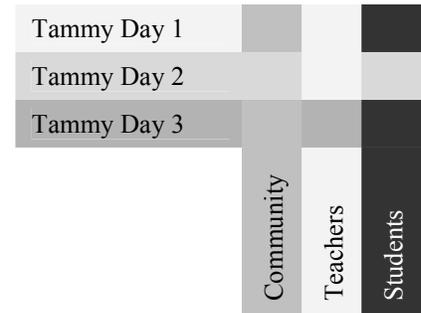


Figure 6. Collaboration Patch of Tapestry

A second patch would represent reciprocal relationships where majors’ service experiences (horizontal threads) interact with the school personnel to meet a school need (vertical threads) resulting in a *majors’ experiences—school need* relationship. Figure 7 offers a possibility for a portion of Nina’s reciprocity patch of tapestry. The horizontal threads represent the days Nina went to the elementary school where she interacted with the community to meet the school, teacher, and students’ needs, represented by the vertical threads.

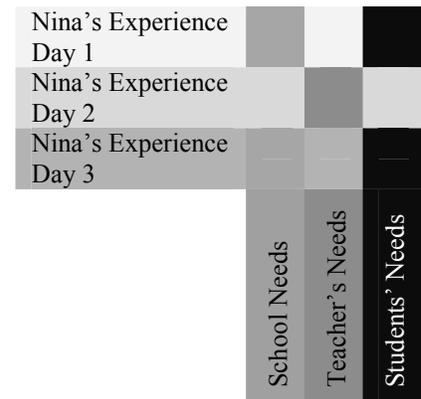


Figure 7. Reciprocity Patch of Tapestry

A third patch, connections, would result from the interaction of course content (horizontal threads) and experiences in an urban setting (vertical threads). Figure

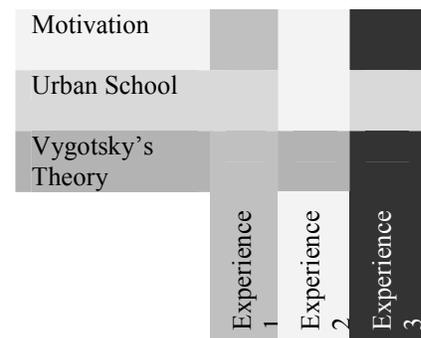


Figure 8. Connection Patch of Tapestry

8, a possible portion of Cindi’s connection tapestry, shows how the concept of motivation was read about and discussed in Cindi’s college course and then she saw it and even tried to accomplish it during one or more service-learning experiences symbolizing a *content—experience* relationship.

Finally, a fourth patch, diversity, would result from the interaction of majors (horizontal threads) with others in an urban setting (vertical threads) creating a *majors—urban others* relationship. A portion of Mary’s diversity patch might look like Figure 9 where the horizontal threads represent Mary’s different days in the elementary school where she interacted with teachers, students, the Vista volunteer and others represented by the vertical threads.

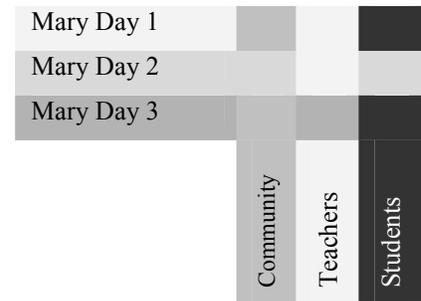


Figure 9. Diversity Patch of Tapestry

Service-learning offers the vertical threads of experiences in an urban setting to weave in and out of the horizontal threads of college content and courses; thereby creating a more stable and comprehensive understanding of what it means to be a teacher. I am not suggesting that service-learning alone can strengthen the course content, but service-learning in an urban setting offers a unique pattern to the tapestry of woven content and experiences. This unique pattern is explored in the following discussion.

Making Sense

Freshmen elementary education majors made sense of their service-learning experiences in their teacher education courses by recognizing that service-learning experiences offered them opportunities to build relationships. They did not just learn course content, but found a comfortable fit for what they learned and made sense of it by

recognizing the opportunities offered by service learning to establish these relationships. These relationships were developed from the interaction of majors and community, service experience and need, content and experience, and majors and urban others and resulted in a better understanding of the world of elementary education.

The *content—experience* relationship where the course content interacted cognitively with majors' service-learning experiences was established in two ways. Either majors were introduced to course content in class (positive reinforcement) and then experienced it during service-learning (teacher giving stickers) or the reverse where, during service-learning, they experienced kindergarten students not following directions (experience) and brought this up during the next class discussion. Through careful questioning during class, I guided majors to come up with some classroom management techniques (content). This was a topic that was not covered until later in the semester. Either content led the experience or experience led the content. Referring back to the tapestry metaphor, the horizontal threads of content were laid before the vertical threads of experience were woven in, or the vertical threads of experience were laid before the horizontal threads of content were woven in. The resulting relationships were *content—experience* or *experience—content*.

Fenzel and Leary's (1997) findings support this as they explained that because of service-learning in a college philosophy course, there was a greater influence of service on learning course material as well as a greater likelihood of the course material enhancing the service experience. Tammy's reaction seemed to be this reverse relationship (experience leading content) when she seemed frustrated that she could not connect any course content to her service learning experiences. Upon further

investigation, it seems that she was looking for educational psychology theories to help explain some of the students' behaviors that she had observed. She had the experience and was looking for the specific content to relate it to. A class discussion resolved this conflict for her. These findings will now be discussed within the context of the service-learning literature.

Findings Within the Greater Picture

Many of the findings of this study correlate or are consistent with other studies on service-learning while allowing for some unique and individual differences. These findings are described in the following four sections on Collaboration, Reciprocity, Connections, and Diversity. The fifth category, Regular and Cascading Models will explore the differences found in the data relating to these two models of service-learning.

Collaboration

Majors made sense of their service-learning experiences when they established a collaborative relationship between themselves and the community, in this study, the urban elementary school. Collaborating with the community was a course concept and majors learned the difference between content as read and content as lived and learned. Majors read about collaboration with the community and when they actually collaborated with teachers and students in the elementary school, they learned how to collaborate to complete a project and the benefits of collaboration. This is consistent with Dodd & Lilly's (2000) finding that infusing service-learning into teacher education programs of 46 early childhood and elementary preservice teachers assisted the preservice teachers in achieving skills in collaboration with community personnel. Abourezk and Patterson

(2003), in a study of service-learning in a physical education teacher education program, explained that service-learning requires all parties to collaborate, which is good training for future teachers. They found that participation in service-learning had a direct impact on future teachers' collaboration skills. Brown (2005) implied the benefits of collaboration by explaining that the collaborations between secondary teachers and preservice teachers in a service-learning project led to a synergy that created projects more suitable to the needs of diverse secondary students. Also implying benefits, Shakir (2003) talked about seven new teachers and one preservice teacher establishing a relationship with the community in which they conducted a service-learning tutoring program for sixth graders. She reported that the participants were able to access authentic community issues and became a vital part of the community in which they worked, helping to strengthen the connection between school, family and the community. While collaboration is implied with the establishment of connections, the tutoring program was outside the school day, thereby involving parents in the collaborative effort also.

Another component of this theme was collaboration with peers. Majors made sense of their service-learning experiences when they recognized that service-learning helped them gain an understanding of what it means to collaborate with peers within an elementary school context. While some collaborations created a problem for Mary, she and others gained diverse perspectives and appreciated the synergy that results from such collaborations. Consistent with this is a study conducted by Cox-Peterson et al. (2005) of 32 preservice teachers in science and language arts methods courses. They found that the preservice teachers, who worked in teams to create and teach integrated after school lessons, found working with a team problematic in some cases, as Mary did. They also

found that the majority thought working in small groups to create lessons was a positive learning experience because of support when planning and teaching lessons and the integration of multiple ideas and viewpoints as Mary and Nina did.

When considering collaboration, Dewey (1944) might suggest that the continuity of experiences of collaborating with others both takes from former and modifies future collaborative experiences. Majors learned through experience how to collaborate and the benefits of collaboration as they participated in service-learning and collaborated with others.

Reciprocity

Regular majors made sense of their service-learning experiences by learning to recognize and value the reciprocal relationship between themselves and the community through an *experience—need* relationship. While Mary saw the reciprocal relationships turn into personal relationships, Tammy saw service-learning as a stepping stone to becoming a teacher and Cindi acquired a better understanding of the teaching profession. Reciprocity was discussed by Jacoby et al. (1996) who explained that in a reciprocal relationship, everyone teaches and learns as colleagues, not servers and clients. Jones and Hill (2001), in a small study of six college students in two service-learning settings, explain that reciprocity in a diverse setting should engender appreciation of differences and mutual understanding between the college and the community. If a disconnect occurs in this relationship, as explained by Brown (2005) in her study with 73 preservice secondary teachers, then service-learning can be interpreted differently by the servers and receivers. Initially, some of the preservice teachers saw themselves as creators of activities for the secondary students while the secondary teachers they were working with

saw them as teacher assistants. Mary described a similar scenario initially when the reality seemed disconnected from her vision of what she thought she should be doing during a service-learning experience. She seemed to want to work with children, or at least have a plan in advance. The teacher she was working with asked her to make bulletin boards, hang up students' work and correct papers. Mary eventually came to recognize that by helping the teacher she was indirectly helping the students because the teacher would have more time for the students if they took on some of her many responsibilities.

The reciprocal, *win—win* relationship between the majors and the community can result in growth where, as Dewey (1944) described, experiences are viewed as interactions of actions with the environment which progressively modifies both the actions and the environment. The majors grow to recognize and value reciprocal relationships as their service-learning experiences provide interactions with the elementary school environment to meet a community defined need. The majors discussed here refer to the regular majors. The cascading majors did not really address the simple *majors—community* relationship because their perceived relationship was cascading with *majors—community*, and then *students (and majors)—community*. This is described in more detail in the sub section named Elementary Students' Connections within the next section.

Connections

Both regular and cascading majors made sense of their service-learning experiences within their teacher education courses by connecting content to experience with the resulting outcomes of learning the content. The majors also made sense of their

service learning experience by participating in projects in the elementary school that required connecting experiences back to content. This resulted in learning the content. Many of the majors recognized connections between content and experience that they described in abstract terms. The content, book, or course connected to the experience (for regular majors) and more action oriented words for cascading majors like do, try, feel, and alive.

Both regular and cascading majors connected their experiences to specific course content while making accurate connections. It would make sense that many studies addressed this content experience connection because learning the course content through connecting it to their service-learning experiences is a major reason for including a service-learning component in a course. Dodd and Lilly (2000) explained that preservice teachers were able to connect literacy to the real world and Abourezk and Patterson (2003) found that physical education preservice teachers worked with supervisors in the discovery and application of subject-specific content. Cox-Peterson et al. (2005) discussed the connection of science and literacy concepts to their service-learning experiences while Frank and Lee (2005) saw students connect Asian history to service in a cross-cultural setting and Wade (1995) described a social studies curriculum connection to active citizenship through service-learning experiences.

Dewey's (1944) ideas about thinking are in tune with the assertion that connecting content with experience can result in learning. He explains that the doing and the consequences of experience make up the matter of learning. Thinking involves accurate and deliberate connections between what is done and its consequences. Thinking not only recognizes these connections, but also takes in the details of the connections involved in

experience so that thinking results in knowledge. Content interacting with experience or experience interacting with content creates a relationship between content and experience resulting in learning the content. According to Aristotle and Dewey (1944), the acquisition of knowledge requires the body and mind to work together. Through experience, the body takes in sensory input as details of particular facts. The mind reflects on these particular facts and finds connections among them resulting in the identification of a generalization. That generalization can then be used as a particular element in a new experience and the process continues as particulars and generalizations work together, through reflection, to form new knowledge. Some majors named reflection as the catalyst for making connections which is consistent with numerous service-learning studies (Astin et al., 2000; Cox-Peterson et al., 2005; Dodd & Lilly, 2000; Eyer & Giles, 2002; Rockquemore & Schaffer, 2000; Vogelgesang & Astin, 2000; Wade, 2003).

It appears that while majors connected their course content with their service-learning experiences and came away with a better understanding of course content, what they wrote about learning was different for different people. Here lies the glory, but also the weakness, provided by service-learning experiences. Everyone comes away with something, but what is that something? It can be different and possibly contrary to the goals of the course. This has to be taken into consideration when contemplating how to incorporate service-learning into a course while remaining consistent with course goals. Will the teacher, students, setting, principal, etc. impact majors' perceptions in a way that might be contrary to course goals? Close monitoring of majors' reflections and class discussions alerted me to discrepancies that I addressed in class discussions.

Diversity

Majors made sense of service-learning when they established relationships with teachers, students and others in a setting that was different from their own elementary experience. While building these relationships they experienced, came to terms with, adapted, learned and benefited from issues related to diversity. A few majors actually named feelings connected to how it felt to be a minority while others recorded facts and observations they encountered while participating in service-learning experiences in a elementary school setting different from the one they experienced as elementary students. Recalling Bransford et al. (2000), Piaget (1970), and Shulman (1999), I envisioned the majors approaching the urban elementary school with their prior knowledge, for the most part, created from experiences within their own cultural background. As they encountered African American teachers, students and others in this urban setting, they were thrown into a disconnect or, as Piaget (1970) named the experience, disequilibrium. The knowledge that was coming in through their senses (Dewey, 1944 & Aristotle in Ozman & Craver, 1990) did not fit into their cognitive structure of prior knowledge about elementary school personnel. Some did a quick assessment and adapted or assimilated (Piaget, 1970) the new information into their prior knowledge to become new knowledge and moved on to discuss other issues. It took others a bit longer because they had to accommodate the information, or as Shulman (1999) graphically described, prior knowledge had to move from the inside out to be examined, grappled with, and modified before it could be moved back inside as new knowledge. By the third visit it seemed that most majors had adapted their cognitive structures to include a more inclusive description of the world of elementary education because minority issues were not mentioned again.

Mary seemed to travel a longer journey to awareness, as others might have also, but no others discussed minority issues after the second visit.

When discussing adaptation that happens when coming from different backgrounds, Carlan and Rubin (2005) found that preservice teachers experienced positive changes in their attitudes for children and families from different backgrounds than themselves. Quality service-learning, according to Jones and Hill (2001) “provides students with rich opportunities to learn about diversity through hands-on experiences and immersion in a community different from their own” (p. 215). Majors also gained a broader view of the world of elementary education with their service-learning projects situated in an urban setting. They had the opportunity to experience and reflect upon diversity issues in the context of an urban elementary school and some named benefits derived from this experience.

Service-learning, different from field experiences in the level and quality of interactions, is about building relationships as specific projects are planned, implemented, and adapted to meet a community need. Majors, teacher, and students worked together to plan and complete a defined project. For this study, field placements were defined as one major observing and helping in one classroom under the mentoring of the classroom teacher. Service-learning usually requires more interaction among partners to complete a project. While any majors from middle and upper middle class families might experience similar reactions as described above to working in an urban setting, service-learning participants might experience a strong urgency to interact at a deeper level because they have a project to complete within a predetermined amount of time. Because of this, relationship building is essential to maximize the impact of service-learning projects. As

Jones and Hill (2001) found, the context of a service-learning project provides opportunities for relationship building across differences to occur. The importance of these relationships was initially developed while finding common ground upon which to interact and then they are strengthened as efficacy is enhanced and empathy and compassion are nurtured. They also cautioned that due to the time constraint of college semesters, community members were aware that the relationships that they established were viewed as short term. Along these lines, Boyle-Baise and Kilbane (2000) in a study of twenty-four preservice teachers in a multicultural education course found that preservice teachers in service-learning experiences learned to work positively with diverse youth and improved cross-cultural communication skills, but some of them would not risk enough to move on to more sophisticated levels of interaction and stayed at the “playing it safe” level.

Malone et al. (2002) explained that “learning is not only the acquisition of knowledge, but also the transformation of students’ perspectives about themselves and the world in which they live” (p. 1). Majors in this study made such a transition as they were faced with a setting and individuals who were different from themselves. They adapted and moved on to productively participate in service-learning projects. They realized that they made a difference in the lives of the urban others with whom they formed relationships. They learned to step outside themselves to recognize and meet the needs of urban others while gaining an understanding of and respect for those others.

Majors made sense of their service-learning experiences when they saw them as an opportunity to step outside of their own familiar educational background into a different setting and develop teaching principles that could be generalized across a

variety of different settings. Interactions happened and relationships were developed between the majors and the urban teachers and students which resulted in a better understanding of what happens in the greater context of the world of elementary education. Because they were in a different setting, majors were able to view issues through a different lens which assisted them in the identification of educational principles that they might not have recognized if they had stayed within the boundaries of their own, familiar educational settings, or as Mary offered, their bubble. Enacting Dewey and Aristotle's inductive and deductive reasoning processes to acquire knowledge, majors developed teaching principles drawing from a more inclusive set of experiences: their own elementary experiences and those in an urban setting. When majors stepped into an elementary setting that was different from their own, their spectrum of experiences expanded to include both settings. The resulting generalizations (or principles) across both settings carried more significance because the data were not restricted to one, specific setting or cultural group. Generalizing that all students are different with different needs might hold more significance as to how different and what needs because majors worked with a more diverse set of particular experiences. Connections between the findings of this study and the related literature are offered in Table 7.

Table 7.
Themes and Literature

| | Academic Outcomes | Professional Development | Personal Outcomes | Social Outcomes | Theoretical Framework |
|---------------|--|---|-------------------|---|--|
| Collaboration | collaboration with others was course content | collaborative lesson planning; all parties collaborate; achieving skills in collaboration; connections between servers and receivers; problematic team work | Made a difference | | continuity of experience |
| Reciprocity | everyone teaches and learns as colleagues; | | | appreciation of differences & mutual understanding; service-learning can be interpreted differently by servers & receivers | growth |
| Connections | literacy to real world; application of knowledge; connect science & literacy to experience; reflection | | | social studies to active citizenship; Asian history to service in a cross-cultural setting | thinking & acquisition of knowledge |
| Diversity | | | | Positive change in attitude toward different others; build relationships; work positively with diverse youth; improve cross-cultural communication skills | acquisition of knowledge; social condition |

The regular majors developed more abstract principles about teaching while the cascading majors developed principles based on more specific insights due to more focused interactions with elementary students. This is discussed in greater length in the next section. The interaction of these different cultural groups allowed for the building of relationships that crossed cultural boundaries and established, for majors, a better understanding of the larger context of the world of elementary education.

Regular and Cascading Models

All of the themes previously discussed relate in some way to other studies conducted on service-learning. What emerged from the data in this study that appears unique in the field of service-learning in teacher education studies is the differentiation between the regular and cascading models of service-learning. A review of the literature on cascading models revealed: (1) descriptions of cascading models without naming the model as cascading; (2) description of what was named a cascading model, but does not fit the definition of cascading identified for this study because it did not include a second service-learning project at the lower cascade of participants; and (3) a description of a cascading model that was named as such and fits the definition as described for this study. All of these were descriptions and not studies.

With a final analysis/synthesis of the data, I pulled out differences between the regular and cascading models of service-learning. When looking at the Collaboration with Community theme, it seemed that the cascading majors offered more specific insights into the world of education possibly because they had to work directly with elementary students on service-learning projects. Julie, a cascading major, learned that involving, encouraging and assigning responsibility to students established a more effective learning environment. She also discovered that it was important to reach every child. Nina, also cascading, recognized that classrooms were more organized and structured when outside collaborators were involved. She recognized that Rowan majors were an outside group providing support for classrooms. Deb, the third cascading major, did not offer any data that seemed to address this issue. In contrast, the regular majors

talked about how the course content on collaboration connected to the real world of elementary education, but they did not offer such specific details.

Likewise, within the Diversity and Teaching theme, cascading majors offered a little more specific insights when synthesizing principles for teaching. From the cascading model, Deb explained that if a child was not meeting expectations, maybe the teacher should consider that as a warning sign to look deeper into the child's life for reasons why. Nina indicated that teachers should focus on teaching the child content, not teaching content to the child. Julie suggested that if a child does not come from a stable environment, then changes in the classroom routine may disrupt the learning of that child. The regular majors offered more general types of principles: teach everyone, kids are different, connect to each child, and get to know kids. Somewhat along these lines, cascading majors offered more details and descriptions of their collaborations with their peers that could have developed because time was an issue. When trying to complete their service-learning projects with the elementary students, they had to collaborate effectively and efficiently to get the job completed on time. It impacted them because they wrote about it more often than the regular majors.

When describing abstract connections, the cascading majors used more action oriented words when they referred to the experience side of the *content—experience* connection. They used words like do, feel, try, alive, action, real world to describe their experiences while the regular majors named experience as experience or service-learning. Due to the nature of the cascading projects, cascading majors were more actively involved with the elementary students as they worked in a hands-on environment to plan

and implement a service-learning project so their view took on an action oriented perspective.

The reciprocal relationship of *majors' experience—students' needs* described by the regular majors was not really addressed by the cascading majors. This could be because the cascading majors were involved in a more complex relationship of *experience—need—experience—need*. This relationship was addressed by the cascading majors when they talked about the elementary students' connections between their content and their experiences. They explained that the elementary students needed to really know and understand their content because they were acting on it and needed to know it well enough to teach it to others (exercises and muscles, talking about Iraq and the war to others). In relation to these projects, I had to ask, was the service-learning project driving the curriculum or the curriculum driving the service-learning project? The muscles and exercises were part of the fifth grade curriculum, but I am not sure if Iraq was part of the second grade curriculum, although writing skills are always appropriate at that level.

Finally, when asked to describe a service-learning project for their future elementary school classrooms, cascading majors all chose a modified cascading model - older students helping younger students, but without the second service-learning project as described previously by Mattos (2005). The regular majors all described a project different from the simple *experience—need* design they were involved in as service-learning. Could it be that the cascading majors were satisfied enough with their projects that they would recreate the same design while the regular majors were looking for something more than what they experienced?

When considering the tapestry for regular and cascading differences, the same relationships hold as were previously described with the majors/content representing the horizontal threads and the service-learning experiences the vertical. What might signify the difference between the two is the number or thickness of the threads representing the cascading majors and their interwoven experiences for the themes previously named. For the cascading portions, greater insight and stronger academic outcomes may make for a stronger and tighter weave and a stronger tapestry.

Looking at an overview of the differences between the cascading and regular models within these seven themes, it seems that the cascading model of service-learning offers greater insight into the world of elementary education since cascading majors developed more specific insights than their regular counterparts. It might be worthwhile to do a more in-depth study of the insights gained with both the cascading and regular model to ascertain whether or not this may be generalized across the field. Knowing that one model may provide majors with more insight for teaching could impact the choice of model employed for service-learning experiences.

When considering the academic outcomes of elementary students, elementary students knew and understood the content they were working with so that they could teach it to others. The majors recognized the significance of how and why the students were learning. The projects provided active, hands-on methods where the students learned content well enough to teach others. This is what I refer to as reinforced pedagogy. Majors had the opportunity to teach elementary students (not all that different from regular model or field experiences), but also saw the results, rather quickly, come to life in front of them. First semester majors taught exercises and muscles to the elementary

students and then the elementary students had to do the exercises and talk about the muscles for the video and the second grade class they later taught. For the second semester, majors taught the geography of Iraq and the significance of sending letters to US soldiers to second graders and then witnessed the second graders accurately describing these issues to other classes in the school as they went out soliciting letters for their letter writing campaign. Other minor lessons included how to make posters and flyers, write letters, speak with volume and clarity for a video recording, etc. The pedagogy is reinforced because the majors had the opportunity to assess their teaching as the elementary students demonstrated what they were taught when teaching others. The effective or ineffective pedagogy will be reinforced with the effective producing accurate results and the ineffective producing less than accurate results. When inaccurate results occur, majors can assess the disconnect and try something else. These are all skills that would be beneficial to future teachers. If this finding can be further studied, as with the deeper insights mentioned above, then employing a cascading model of service-learning may provide majors with the opportunity for reinforced pedagogy. This opportunity would not be available with a regular model as defined for this study.

Finally, in the description of a future service-learning project, cascading majors must have valued their experiences enough to not want to change their cascading design of projects. The findings relating to the cascading model only include: cascading majors seemed to value their cascading design; gained deeper insights about teaching practice; and experienced reinforced pedagogy. Cascading majors made sense of their service-learning experiences in their teacher education courses as the relationships they

established were deeper and differently productive in some of the themes that emerged from the data.

One drawback to utilizing a cascading model of service-learning is a consideration of the reciprocal relationship. If the need to be met in the community is defined by the community, then it may not include a cascading project, although I have found that a regular model can become a cascading one with a bit of creativity and effort.

Having described the differences between the regular and cascading models, it is important to acknowledge that I could be wrong in emphasizing differences between the cascading and regular majors as much as I have. Although I distanced myself from the data by putting it aside for several months, others might have seen within group differences to be as striking as between group differences. I began analyzing the data with blind coding, but I started to recognize each majors' handwriting and style of writing so the coding was no longer blind. I could also tell by the content of the data which model of service-learning was being discussed. I made every attempt to stay close to the data and offered direct quotes from the majors to support my analysis and synthesis. There were within group differences as well as between group differences, but the between group differences seemed to be more significant. This is an area that obviously needs further study.

Future Studies

All studies have their limitations. This study is relying on the sense making of six participants as interpreted by me, the sole participant researcher. Future studies would help clarify these findings. As previously mentioned, studies are needed to explain the role that the cascading model plays in service-learning experiences. Will a cascading

model of service-learning benefit future teachers more than a regular model? Conducting studies at different types of institutions with a large sample could offer more clarity for making solid claims about outcomes for different models.

Considering the strong standards movement in teacher education programs, it might be helpful to study service-learning as it relates to local, content, state and national standards. Which standards might service-learning impact and how would they be impacted? Doing a text or content analysis on the relationships between service-learning and these standards might prove informative.

Academic outcomes were the focus of many studies in the literature on service-learning, and in particular, teacher education programs. Eyler and Giles (1999) suggested that the field should define what the academic outcomes for service-learning should be. Eyler reinforced that suggestion in 2000 when she explained that it was difficult to determine academic outcomes of service-learning. In this study, based on Bransford et al. (2000), Piaget (1970) and Shulman (1991) suggesting that prior knowledge actively meets new information to construct new knowledge model of acquiring knowledge, I claimed academic outcomes for the majors because they not only self reported that they made connections, but they also described accurate content specific connections between course content and service-learning experiences. It would be helpful to have guidelines on appropriate academic outcomes for service-learning.

Somewhat ironically, the perspectives of the communities who are served are an overlooked area of research. Since service-learning is purported to promote a reciprocal relationship between the students and the community, it would be beneficial to study the community's perspective on the receiving end of service-learning experiences. What

sense did they make of service-learning? Were their needs met? How were their needs met? Did they view service-learning as an opportunity to build relationships?

It would be informative to follow the majors involved in this study into their future classrooms and see if they include service-learning experiences in their teaching practice. Why or why not? Which model, regular or cascading? What outcomes did they expect? What outcomes did they find? They are seniors now so that future classroom is not far away. It might be helpful to take a closer look at building relationships. How are they built? How can they go wrong? With a tendency to focus on college students, how can we make sure that relationships respect and equally include the community partners?

Conclusion

Service-learning in teacher education courses provided majors with opportunities to build relationships. When they interacted with the teachers and students and built *major—student/teacher* collaborative relationships, they learned how to collaborate and the benefits of collaboration within an elementary school setting. When they interacted with the members of the school community, they built *majors' experiences—community need* relationships that turned into personal relationships while they were learning about teaching. When their course content interacted with their service learning experiences through reflection in their cognitive structures, they built *content—experience* relationships and learned course content. When they interacted with others in an urban setting they built *majors—urban others* relationships and came to terms with issues related to diversity. Majors made sense of their service-learning experiences by seeing the experiences, both in class and in the elementary school, as opportunities to build relationships and learn more about teaching and the world of elementary education. The

cascading model seemed to offer majors a deeper insight into the world of elementary education while allowing them to experience reinforced pedagogy.

Freshmen elementary education majors made sense of their service-learning experiences in their teacher education courses by coming to see service-learning experiences as the catalyst for weaving relationships. Because of service-learning experiences, majors were able to establish collaborative, reciprocal, connecting, and diverse relationships as they learned “Introduction to Education” and “Learning Theory” content while meeting community needs. While the courses were different and the projects were different, the data did not indicate that these relationships were different for the different courses, rather, the relationships established were consistent across both courses.

Freshman elementary education majors made sense of their service-learning experiences in the projects they conducted in the elementary schools by coming to see these projects as the catalyst for building reverse relationships where the experience led the content. What they experienced was brought back to the college and connected to content related to the world of elementary education.

From my perspective, I believe I have gleaned the meaning of what majors had to offer related to their service-learning experiences in their coursework and in the urban elementary school. I have attempted to represent their perspectives as honestly and clearly as possible. Remaining true to my visual representation, it is hoped that majors, when they are ready to graduate, will have woven a unique and brilliant tapestry of the world of elementary education where content interacted with experiences. The result should be a picture of an informed and unique philosophy and knowledge base upon

which to build their classroom practice. From the findings of this study, it might be safe to say that the freshman section of that tapestry is fuller and stronger for having woven service-learning in with their course content.

Appendix A. Interview Protocol: Students I & II

Interview Protocol: Students I

Introduction to Education and Learning Theory courses
Fall 2002 and Spring 2003

Introduction statement:

Thank you for agreeing to participate in this study. This interview will be audio-taped in order to accurately record your comments. The tape will be transcribed using a pseudonym in place of your real name. All information collected in this study is confidential and your name will not be identified at any time. The information you share will be grouped with information others provide for reporting and presentation. Please feel free to stop me, slow me down, ask questions, or elaborate at any time.

Interview #1 Beginning of the semester

- How would you describe learning?
- Describe the best learning experience you've ever had.
Prompt: What do you think made this experience so good? How was it different from other, not-so-good experiences?
- Describe an experience when learning was difficult.
- How would you describe the role of teachers?
- How would you describe service-learning?

Interview # 2 Middle of the semester (after Mid-term)

- Has your thinking about learning changed since the last interview? How?
- Has your thinking about the role of teachers changed since the last interview? How?
- Has your thinking about service-learning changed since the last interview? How?
- Tell me what a service-learning experience is like or Walk me through a service-learning experience.
- What did you learn from it?
- What challenges did you experience?
- How did you deal with them?
- What has been the most difficult aspect of your service-learning experiences?
- How (if at all) did what was difficult for you change over time?
- What makes service-learning educative? Are there times when it is deeply educative? Are there times when it is not educative?

Interview # 3 End of the semester

- Has your thinking about learning changed since the last interview? How?
- Has your thinking about the role of teachers changed since the last interview? How?
- Has your thinking about service-learning changed since the last interview? How?
- Tell me what a service-learning experience is like or Walk me through a service-learning experience.
- What did you learn from it?
- What challenges did you experience?
- How did you deal with them?
- What has been the most difficult aspect of your service-learning experiences?
- How (if at all) did what was difficult for you change over time?
- What makes service-learning educative? Are there times when it is deeply educative? Are there times when it is not educative?
- Imagine you are a third grade teacher. If you did service-learning, what would it look like?

Appendix B. Interview Schedule I & II

Interview Schedule I

Introduction to Education Course
Fall, 2002

| # | Time Line | Who | What |
|-----|---------------------|-------------------------------------|---|
| 1 S | Beginning of course | Interviewed 6 freshmen participants | Identify and understand perspectives on teaching, learning & service. |
| 2 S | Just after mid-term | Interviewed 6 freshmen participants | Readdress perspectives on teaching, learning, & service |
| 3 S | End of course | Interviewed 6 freshmen participants | Readdress perspectives on teaching, learning & service |

Interview Schedule II

Learning Theory Course
Spring, 2003

| # | Time Line | Who | What |
|-----|---------------------|-------------------------------------|---|
| 4 S | Beginning of course | Interviewed 6 freshmen participants | Identify and understand perspectives on teaching, learning & service. |
| 5 S | Just after mid-term | Interviewed 6 freshmen participants | Readdress perspectives on teaching, learning, & service |
| 6 S | End of course | Interviewed 6 freshmen participants | Readdress perspectives on teaching, learning & service |

Appendix C. Service-Learning “Field” Form

Service-Learning “Field” Form

Date: _____

Name: _____

Time in: _____ Time Out: _____ Total: _____

Who: _____

What: _____

Comments: _____

Concerns: _____



Appendix D. Weekly Reflection Journal

Weekly Reflection Journals

Name _____ Date: _____

1) What happened today? What did I do? 2) How did my service today make me feel? 3) What relationships am I building? 4) How does what I am observing/doing at my placement relate to the concepts and ideas we are currently learning in class (be specific)?

Appendix E; Questionnaires

Initial Questionnaire

Code: _____ Date: _____
(age, # of siblings, first 4 letters of the car you drive most frequently, first initial of your mother's maiden name)

This Questionnaire is designed to record general attitudes and perceptions of education students. As part of this study, we would like to know about your experiences and opinions now and at a later date. This information will be useful in understanding and later enhancing teacher education programs.

Please respond as honestly as possible, relying on your current feelings of the particular issues raised. Your responses will be kept confidential. Your name will not be connected to specific results of the questionnaire.

SECTION I Please answer the questions.

- Class Level: Freshman
 Sophomore
 Junior
 Senior
- Age: _____
- Prior Education: Public
 Private
- Race/ethnicity _____
- State: _____
- I participated in the following activities in the past: (please list specific sport, club, etc.)
 varsity sports _____
 intramural sports _____
 clubs _____
 other (scouts, church groups, etc.) _____
- I chose an Elementary Education major for the following reasons:
 I have an educator in my immediate family
 I have a relative who is an educator
 I have a desire to give back or serve
 I like the "flexible schedule"
 I think I would be a good teacher
 Someone told me I'd be a good teacher
 other _____
reason(s) _____
- I've taken a leadership role with children in the following activities:
 camp counselor
 church leader
 outward bound
 recreation leader
 other _____
 scout leader
 coach/referee
 4-H leader
 tutor/mentor
- I've worked with children of the following ages (circle ages):
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Section II Please place a check in the appropriate box.

| Please indicate your agreement with each of the following statements | | | | |
|---|------------------------|--------------------------|-----------------------|-----------------------|
| | 1=Disagree strongly | 2 = Disagree somewhat | 3 = Agree somewhat | 4 = Agree strongly |
| Working on group projects is more rewarding than working on individual projects. | | | | |
| I am motivated by courses that contain hands-on applications of theories to real life situations. | | | | |
| Everyone should find time to contribute to their community. | | | | |
| I feel comfortable around people from different racial and ethnic groups. | | | | |
| I learn course content best when connections to real life situations are made. | | | | |
| When a course curriculum is relevant to my life, I learn more. | | | | |
| I usually feel uncomfortable initiating conversations with people whom I do not know. | | | | |
| When I see something wrong or unfair happening to someone else, I usually try to do something about it. | | | | |
| I believe in standing up for what is right, regardless of what other people think. | | | | |
| I know how to approach a supervisor or boss to discuss an important matter. | | | | |
| I believe that if everyone works together, many of society's problems can be solved. | | | | |
| I feel I possess the necessary personal qualities to be a teacher. | | | | |
| Cultural diversity within a group makes the group more interesting | | | | |
| I enjoy meeting people who come from backgrounds very different from my own. | | | | |
| I find it difficult to relate to people from a different race or culture. | | | | |

1. How would you describe teaching?

2. How would you describe learning?

3. What do you see as the ultimate goal of education?

4. What role do teachers play in society?

5. How would you describe service-learning?

6. Where do you see yourself in 5 years? 10 years?

Final Questionnaire

1. Code: _____ Date: _____
(age, # of siblings, first 4 letters of the car you drive most frequently, first initial of your mother's maiden name)

This Questionnaire is designed to record general attitudes and perceptions of education students. As part of this study, we would like to know about your experiences and opinions now. This information will be useful in understanding and later enhancing teacher education programs.

Please respond as honestly as possible, relying on your current feelings of the particular issues raised. Your responses will be kept confidential. Your name will not be connected to specific results of the questionnaire.

SECTION I Please answer the questions

1. Where was your service placement connected with this course (**no names** - general description e.g. elementary school, middle school, public, private)?

2. What grade level did you work with? _____
3. Briefly describe the type of work you did at your placement. _____

4. How would you rate your overall service-learning experience? (circle one)
Poor Fair Good Very Good Excellent
5. Would you recommend service-learning courses to other students? If Yes, why? If No, why not?
6. Did your participation in the service-learning component enhance your understanding of the course content? If Yes, how? If No, why not?
7. This class was _____ than the other courses I've taken at this college that do not have a service-learning component. (Circle your choice that would best fill in the blank).

A. Level of Interest:

- 1 — Less interesting
- 2
- 3 — About the same
- 4

B. Level of Learning:

- 1 — Less learned
- 2
- 3 — About the same
- 4

5 — More Interesting

5 — More Learned

Section II Please place a check in the appropriate box.

| Please indicate your agreement with each of the following statements | | | | |
|---|------------------------|--------------------------|-----------------------|-----------------------|
| | 1=Disagree strongly | 2 = Disagree somewhat | 3 = Agree somewhat | 4 = Agree strongly |
| Working on group projects is more rewarding than working on individual projects. | | | | |
| I am motivated by courses that contain hands-on applications of theories to real life situations. | | | | |
| Everyone should find time to contribute to their community. | | | | |
| I feel comfortable around people from different racial and ethnic groups. | | | | |
| I learn course content best when connections to real life situations are made. | | | | |
| When a course curriculum is relevant to my life, I learn more. | | | | |
| I usually feel uncomfortable initiating conversations with people whom I do not know. | | | | |
| When I see something wrong or unfair happening to someone else, I usually try to do something about it. | | | | |
| I believe in standing up for what is right, regardless of what other people think. | | | | |
| I know how to approach a supervisor or boss to discuss an important matter. | | | | |
| I believe that if everyone works together, many of society's problems can be solved. | | | | |
| I feel I possess the necessary personal qualities to be a teacher. | | | | |
| Cultural diversity within a group makes the group more interesting | | | | |
| I enjoy meeting people who come from backgrounds very different from my own. | | | | |
| I find it difficult to relate to people from a different race or culture. | | | | |

SECTION III Please place a check in the appropriate box

| Please indicate how important the following are to you personally | | | | |
|---|---------------|---------------|------------------------|-------------------|
| | 1 = Essential | 2 = Important | 3 = Somewhat Important | 4 = Not Important |
| Helping other people | | | | |
| Working with people different from me | | | | |
| Improving society as a whole | | | | |
| Enhancing my academic learning | | | | |
| Fulfilling my civic/social responsibilities | | | | |
| Enhancing my resume with service work | | | | |
| Feeling personal satisfaction | | | | |
| Making a difference | | | | |
| Becoming involved in a program to improve my community | | | | |
| Working toward equal opportunity (e.g. social, political, vocational) for all people | | | | |
| Making a theoretical contribution to science | | | | |
| Developing a meaningful philosophy of life | | | | |
| Understanding others' perspectives | | | | |
| Being aware of students' non-school environment | | | | |
| Being able to meet the needs of students who come from different backgrounds than my own. | | | | |

SECTION IV Please place a check in the appropriate box.

| From this course involving a service-learning component, which of the following activities influenced your learning? | | | | |
|--|--------------|------------|---------------|--------------|
| | 1 Not At All | 2 A Little | 3 Good Amount | 4 Great Deal |
| Providing real services to people | | | | |
| Guided reflection entries | | | | |
| Written assignments | | | | |

| | | | | |
|---|--------------|------------|---------------------|--------------------------|
| Class discussions | | | | |
| | 1 Not At All | 2 A Little | 3 Good Am out | 4 Great A Dea 1 |
| Group work | | | | |
| Information Organizers | | | | |
| Working with teachers in the field | | | | |
| Informal sharing of experiences with other classmates | | | | |
| Interaction with the people you served | | | | |
| Please indicate the extent to which your participation in the service-learning component of this course has influenced each of the following | | | | |
| Your values, attitudes, and beliefs | | | | |
| Your understanding of people with backgrounds different from your own | | | | |
| Your choice of major | | | | |
| Your self-confidence | | | | |
| Your attitude about academic studies | | | | |
| Your involvement in political activities | | | | |
| Your relationship with faculty members | | | | |
| Your understanding of the teaching/learning process | | | | |

SECTION V Please answer the questions.

1. Has service-learning influenced your perception of teaching? If yes, how? If no, why not?

2. Has service-learning influenced your perception of learning? If yes, how? If no, why not?

3. What role, if any, does service learning play in the ultimate goal of education?

4. How would you describe service-learning?

5. What role do teachers play in society?

6. Has service-learning experiences changed how you view the world? How or why not?

7. As a teacher, would you use service-learning in your own classroom? Why or why not?

8. Where do you see yourself in 5 years? 10 years?

Some of the questions for the Questionnaire came from or were modified from:

Civic Attitudes and Skills Questionnaire (CASQ) for Evaluation of Service-Learning Outcomes
Moely, B. E., & Mercer, S. H., & Ilustre, V., Miron, D., McFarland, M. (2002). Psychometric properties and correlates of the civic attitudes and skills questionnaire (CASQ): A measure of students' attitudes related to service-learning. *Michigan Journal of Community Service Learning* 8(2), 15-26.

Pre Learn and Serve Questionnaires (Fall 2000).
The Shriver Center Higher Education Consortium at the University of Maryland, Baltimore County, Catonsville, Maryland

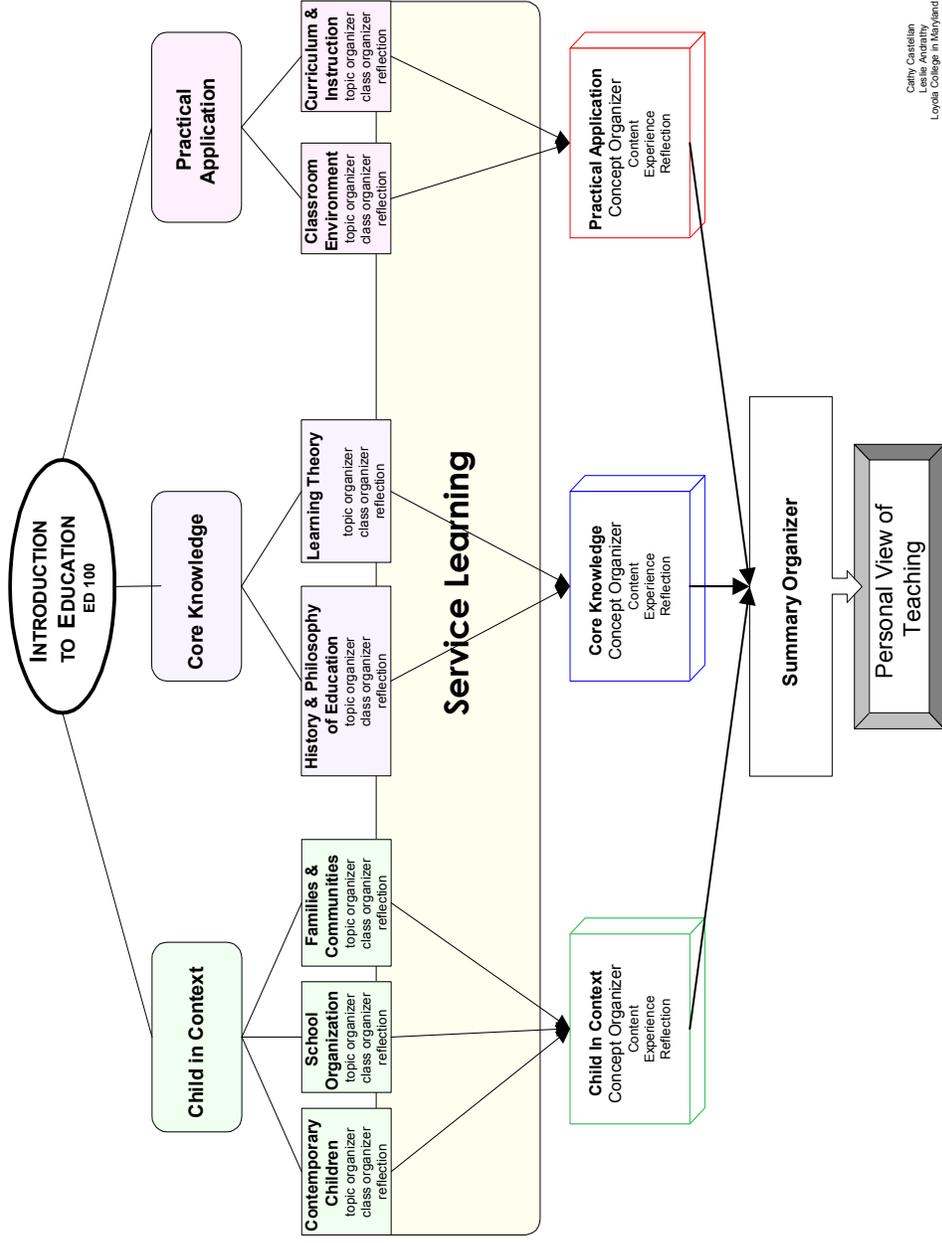
Post Learn and Serve Questionnaires (Fall 2000).
The Shriver Center Higher Education Consortium at the University of Maryland, Baltimore County, Catonsville, Maryland

Shumer's Self-Assessment For Service-Learning
Shumer, R. (2000) Center for Experiential and Service-Learning, Department of Work, Community, and Family Education, College of Education and Human Development, University of Minnesota, St. Paul, Minnesota

University of California, Berkeley Student Pre-Test (Service-Learning)
www-gse.berkeley.edu/RESEARCH

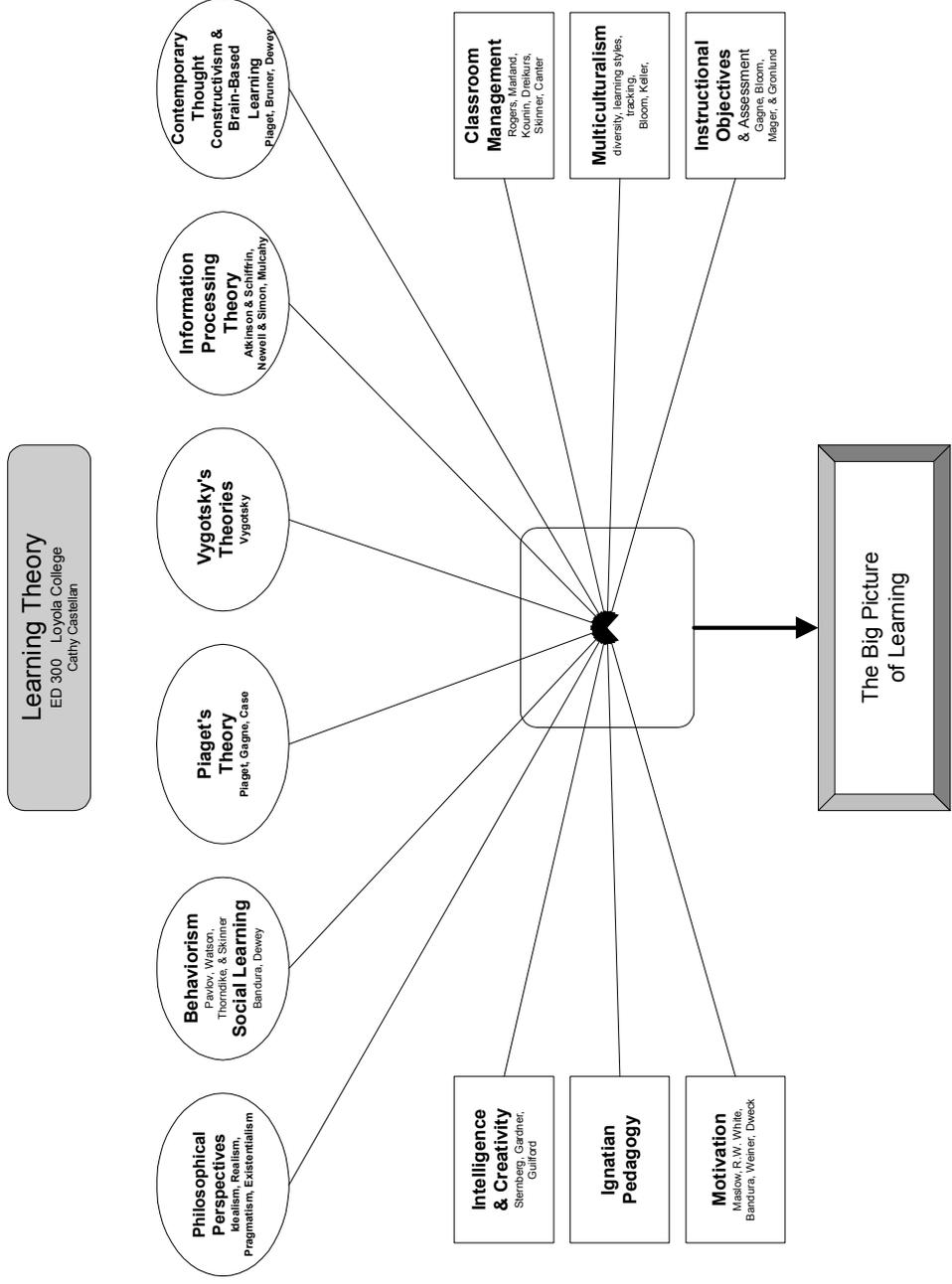
University of California, Berkeley Student Post-Test (Service-Learning)
www-gse.berkeley.edu/RESEARCH

Appendix F. Overview of “Introduction to Education” Course



Cathy Castellan
Leticia Anarthy
Loyola University
Chicago, IL
1999

Appendix G. Overview of “Learning Theory” Course



Bibliography

- Abourezk, T., & Patterson, D.L. (2003, Summer). Bridging the gap for preservice teachers. *Academic Exchange*, 121-125.
- Alliance for Service Learning in Education Reform (1993). *Standards of quality for school-based service learning*. Chester, VT: Author.
- Anderson, J. (1999). Digest number 97-1 *Service-learning and teacher education*. Retrieved on July 30, 2002 from http://www.ericsp.org/pages/digests/services_learning_97-1.html.
- Anderson, J. B., & Hill, D. (2001). Principles of good practice for service-learning in preservice teacher education. In J. B. Anderson, K. J. Swick., & J. Yff, (Eds.). *Service-Learning in Teacher Education: Enhancing the Growth of New Teachers, their Students, and Communities* (69-84). Washington, DC: American Association of Colleges for Teacher Education.
- Anderson, J. B., Swick, K. J., & Yff, J. (2001). *Service-learning in teacher education: Enhancing the growth of new teachers, their students, and communities*. Washington, DC: American Association of Colleges for Teacher Education.
- Astin, A. W., & Sax, L. J. (1998). How undergraduates are affected by service participation. *Journal of College Student Development*, 39(3), 251-263.
- Astin, A.W., Vogelgesang, L.J., Ikeda, E. K., & Yee, J. A. (2000). Executive summary: How service learning affects students. Los Angeles, CA: *Higher Education Research Institute*.
- Bechtel, W. (1988). *Philosophy of mind*. New Jersey: Lawrence Erlbaum Associates.
- Bogdan, R. C., & Biklen, S. K. (1998). *Qualitative research in education* (3rd ed). Needham Heights, MA: Allyn & Bacon.
- Boyle-Baise, M., & Kilbane, J. (2000). What really happens? A look inside service-learning for multicultural teacher education. *Michigan Journal of Community Service Learning*. 7, 54-64.
- Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.). (2000). *How people learn: Brain, mind, experience, and school*. Washington, D.C.: National Academy Press.
- Brooks, J. G., & Brooks, M. G. (1993). *In search of understanding: The case for the constructivist classrooms*. Alexandria, VA: Association for Supervision and Curriculum Development.

- Brown, E. L. (2005). Service-learning in a one-year alternative route to teacher certification: A powerful multicultural teaching tool. *Equity & Excellence in Education, 38*, 61-74
- Carlan, V. G., & Rubin, R. (2005, Spring). Service, learning, and social justice. *Academic Exchange, 202-206*.
- Conway, P. H. (1959). Induction in Aristotle and St. Thomas. *The Thomist, 22*, 336-365.
- Cox-Petersen, A. M., Spencer, B. H., & Crawford, T. J. (2005). Developing a community of teachers through integrated science and literacy service-learning experiences. *Issues In Teacher Education, 14*, 23-38.
- Dewey, J. (1940). *Democracy and education*. New York, NY: The Free Press.
- Dewey, J. (1997). *Experience and education*. New York, NY: Touchstone.
- Dodd, E. L., & Lilly, D. H. (2000, Fall). Learning with communities: An investigation of community service-learning in teacher education. *Action in Teacher Education, 22(3)*, 77-85.
- Erickson, F. (1986). *Qualitative methods in research on teaching*. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (pp. 119-161). New York, NY: Macmillan Publishing Company.
- Erickson, J. A., & Anderson, J. B. (1997). *Learning with the community: Concepts and models for service-learning in teacher education*. Washington, DC: American Association of Colleges for Teacher Education.
- Eyler, J. S. (2000). What do we most need to know about the impact of service-learning on student learning? *Michigan Journal of Community Service Learning, Special Issue*, 11-17.
- Eyler, J., & Giles, Jr., D. E. (1999). *Where's the learning in service-learning?* San Francisco, CA: Jossey-Bass.
- Fenzel, L. M., & Leary, T. P., (1997, March). *Evaluating Outcomes of Service-Learning Courses at a Parochial School*. Paper presented at the annual meeting of the American Education Research Association, Chicago.
- Florida Community/Higher Education/School Partnership (CHESP)* (n.d.). Retrieved July 24, 2005 from <http://www.fsu.edu/~fass/info.htm>
- Fontana, A., & Frey, J. H. (1994). Interviewing: The art of science. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp.361-376). Thousand Oaks, CA: Sage Publications.

- Frank, R. K., & Lee, J. T. (2005, Spring). Service-learning in Mongolia. *Academic Exchange*, 145-149.
- Furco, A. (2002). Is service-learning really better than community service? In A. Furco & S. H. Billig (Eds.), *Service-Learning: The Essence of the Pedagogy* (23-50). Greenwich, Connecticut: Information Age Publishing.
- Hinkle, D. E., Wiersma, W., & Jurs, S. G. (1998). *Applied statistics for the behavioral sciences*. Boston, MA: Houghton Mifflin Company.
- Howard, J. P., Gelmon, S. B., & Giles, D. E. (2000). From yesterday to tomorrow: Strategic directions for service-learning research. *Michigan Journal of Community Service Learning, Special Issue*, 5-10.
- Jacoby, B. and Associates (1996). *Service-learning in higher education*. San Francisco, CA: Jossey-Bass Publishers.
- Jones, S. R., & Hill, K. (2001). Crossing high street: Understanding diversity through community service-learning. *Journal of College Student Development*, 42(3), 204-216.
- Kennedy, V., (2005, Spring). Service learning and the induction of teachers. *Academic Exchange*. 292-296.
- Kielsmeier, J. C. (2000). A time to serve, a time to learn. *Phi Delta Kappan*, 652-664.
- Krathwohl, D. R. (1998). *Methods of educational & social science research: An integrated approach (2nd ed.)*. White Plains, NY: Addison Wesley Longman, Inc.
- Lilly, S. (2001). A dean's perspective on service-learning in teacher education. In J. B. Anderson, K. J. Swick., & J. Yff, (Eds.). *Service-Learning in Teacher Education: Enhancing the Growth of New Teachers, their Students, and Communities* (pp.212-220). Washington, DC: American Association of Colleges for Teacher Education.
- Litke, R. A. (2002). Do all students "get it?": Comparing students' reflections to course performance. *Michigan Journal of Community Service Learning* 8(2), 27-34.
- Madsen, S. R., & Turnbull, O. (2005, Spring). Teaching citizenship through service-learning. *Academic Exchange*, 11-15.
- Malone, D., Jones, B. D., & Stallings, D. T. (2002). Perspective transformation: Effects of a service-learning tutoring experience on prospective teachers. *Teacher Education Quarterly*, 26, 61-82.
- Mattos, F. R., *Bridging K-16, A Hawaiian Mentoring Initiative for Fostering Improved Academic Success through Literacy and Critical Literacy*. Retrieved July 25, 2005 from <http://www.mc.maricopa.edu/other/engagement/ThroughWhoseEyes/Windward.jsp>

- McKenna, M. J. (2000, Summer). Students, agencies, and faculty sign on for academic service-learning: A natural partnership for teacher education. *Teacher Education Quarterly*, 27, 89-102.
- McMillan, J. H. (2000). *Educational research (3rd ed)*. New York, NY: Addison Wesley Longman, Inc.
- Michael, R. L. (2005, Spring). Service-Learning improves college performance. *Academic Exchange*, 110-114.
- Morgan, W. (1998). *A new way of teaching, A new way of learning: A newsletter of the Indiana initiative to embed service-learning into teacher education (ESTE)*. Bloomington, Indiana: Indiana University.
- Ormrod, J. E. (1995). *Human learning*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
- Ozman, H. A., & Craver, S. M. (1990). *Philosophical foundations of education*. Columbus, Ohio: Merrill Publishing Company.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods (2nd ed.)*. Newbury Park, CA: SAGE publications, Inc.
- Peace Corps (1998). *Service-learning rubric*. Retrieved on April 10, 2002 from <http://www.peacecorps.gov/www/service/lessons/lesson6/sirubric.html>
- Piaget, J. (1970). *Science of education and the psychology of the child*. New York, NY: Grossman Publishers, Inc.
- Porter, M., & Monard, K. (2001). Ayni in the global village: building relationships of reciprocity through international service-learning. *Michigan Journal of Community Service Learning*, 8(1), 5-17.
- Rockquemore, K. A., & Schaffer, R. H. (2000). Toward a theory of engagement: A cognitive mapping of service-learning experiences. *Michigan Journal of Community Service Learning*, 7, 14-24.
- Root, S., & Furco, A. (2001). A review of research on service-learning in preservice teacher education. In J.B. Anderson, K. J. Swick, & J. Yff (Eds.), *Service-learning in teacher education: Enhancing the growth of new teachers, their students, and communities* (pp. 86-102). Washington, DC: American Association of Colleges for Teacher Education.
- Root, S., & Swick, K. J. (2001). A framework for conceptualizing and doing research on service-learning in preservice teacher education. In J.B. Anderson, K. J. Swick, & J. Yff (Eds.), *Service-learning in teacher education: Enhancing the growth of new teachers, their students, and communities* (pp. 141-153). Washington, DC: American Association of Colleges for Teacher Education.

- Root, S., Callahan, J., & Sepanski, J. (2002). Building teaching dispositions and service-learning practice: A multi-site study. *Michigan Journal of Community Service Learning*, 8(2), 50-60.
- Runes, D. (1983). *Dictionary of philosophy*. New York, NY: Philosophic Library.
- Schon, D. (1983). *The reflective practitioner*. New York, NY: Basic Books.
- Shastri, A. (2003, April). *Preservice teachers' responses to a service-learning experience*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Shulman, L. S. (1986). Paradigms and research programs in the study of teaching: A contemporary perspective. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (pp. 3-36). New York, NY: Macmillan Publishing Company.
- Shulman, L. S. (1999). Taking learning seriously, *Change* 31, 10-17.
- Shumer, R. (1997). Teacher education and service-learning: A critical perspective. Retrieved on January 29, 2002 from http://www.aahe.org/members_only/SL-shum.htm
- Stanton, T. K., Giles, D. E., & Cruz, N. I. (1999). *Service-Learning: A movement's pioneers reflect on its origins, practice, and future*. San Francisco, CA: Jossey-Bass Publishers.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research*. Thousand Oaks, CA: Sage Publications, Inc.
- Students Sharing Coalition in Baltimore City (n.d.). Retrieved July 24, 2005 from <http://www.studentssharing.org/about.htm>
- Swick, K. J. (2001). Service-learning in teacher education: Building learning communities. *The Clearing House*, 74(5), 261-265.
- Tannenbaum, S. C., & Berrett, R. D. (2005, Spring). Relevance of service-learning in college courses. *Academic Exchange*, 197-201.
- Toole, J., & Toole, P. The service-learning cycle. Retrieved on April 10, 2002 from <http://www.peacecorps.gov/wws/students/service/getstarted.html>
- Vogelgesang, L. J., & Astin, A. W. (2000). Comparing the effects of community service and service-learning. *Michigan Journal of Community Service Learning*, 7, 25-34.
- Wade, R. C. (1995, June). Developing active citizens: Community service learning in social studies teacher education. *The Social Studies*. 86, 122-128.

- Wade, R. C. (1998). Community service-learning: Collaborating with the community as a context for authentic learning. Retrieved on June 13, 2002 from <http://www.contextual.org/docs/6-WADE.pdf>
- Wade, R. C., Anderson, J. B., Yarbrough, D. B., Pickeral, T., Erickson, J. B., & Kromer, T. (1999). Novice teachers' experiences of community service-learning. *Teaching and Teacher Education, 15*, 667-684.
- Whitfield, T. S. (2005, Spring). Side of service-learning. *Academic Exchange, 248-252*
- Wiersma, W. (1991). *Research methods in education (5th ed)*. Needham Heights, MA: Allyn and Bacon.
- Willis, S. (June, 2002). Service-learning puts academics into action. Association for Supervision and Curriculum Development Education Update, 44, 1-3.
- Wink, J. (2000). *Critical pedagogy*. New York, NY: Addison-Wesley Longman, Inc.
- Zeichner, K. M., & Liston, D. P. (1996). *Reflective teaching*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc