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SERVICE-LEARNING: AN INTERPRETIVE CASE STUDY OF TEACHERS' PERSPECTIVES AND PLANNING STRATEGIES

By

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Submitted in Partial Fulfillment of the Requirements

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DEDICATION

First, I would like to dedicate this dissertation to all the teachers whom with I have worked side by side over the past ten years. They have taught me so much about how to be the educator I've always dreamed I could be. Most importantly, I'd like to dedicate this dissertation to Mrs. Elizabeth Manning, Mrs. Elizabeth Kauffman, Mr. Bobby Hemingway, and Ms. Lauren Stalcup. These four teachers have fully supported my efforts to teach my students according to my own teaching philosophies, and never let me give up on that philosophy. They have inspired me to further my education and pursue this degree.

Finally, this dissertation is also dedicated to Katie Stagliano, founder of Katie's Krops, and her mom Stacy. Not only have they let me join their efforts as a volunteer in their organization, they have been my family in times when I needed family the most. I thank them for their love and support throughout my journey.

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I would like to thank Dr. Nathan Carnes for taking a chance on me and taking me on as a doctoral student. I would also like to acknowledge Dr. Christine Lotter on whom I could always count to answer questions when I needed it. I thank her for providing me with so many opportunities during my time at USC. I will forever be grateful.

ABSTRACT

This interpretive case study focused on elementary teachers who were implementing a service-learning project in their classroom. Research suggests that service-learning is beneficial for students and is becoming more prevalent in high schools and universities. Current literature, however, provides little evidence for the use of service-learning at the elementary level. The purpose of this study was to explore and gain insight in to how elementary school teachers use service learning and to examine underlying factors that shape and influence how teachers plan for and implement service learning projects. This study aims to provide a planning model to support elementary teachers implementing future service-learning projects. Four third grade teachers at a southeastern suburban elementary school participated in the study. Data were generated through interviews, focus groups, and observations. Data showed that these teachers did not use the same planning strategies for service-learning that they used in planning for academic standards. Teachers had negative perceptions of SL as a strategy because they did not have time to plan, felt too much pressure to accomplish other obligations such as standardized instruction, or they did not have the pedagogical or content knowledge necessary to be successful. This study suggests that teachers need to plan for an emergent curriculum when implementing a SL project, but further research and professional development are necessary to develop a planning model.

TABLE OF CONTENTS

Dedication	iii
Acknowledgements	iv
Abstract	v
List of Figures	vii
List of Abbreviations	viii
Chapter One Introduction	1
Chapter Two Literature Review	8
Chapter Three Research Design and Methods	35
Chapter Four Research Findings.	55
Chapter Five Discussion of Findings	86
References	117
Appendix A: Questions for Katie's Krops Applicants	128
Appendix B: Participant Letter	130
Appendix C: Interview Protocol – Initial Interview	131
Appendix D: Interview Protocol 2-4	133
Appendix E: Timeline of study	134
Appendix F: Planning Meeting Agenda Template	135
Appendix G: Planning Meeting Agenda 12/6/2016	136
Appendix H: Planning Meeting Agenda 4/18/2017	139
Appendix I: Planning Meeting Agenda 5/9/2017	142

LIST OF FIGURES

Figure 2.1. Image of Sandmann, Kiely, and Grenier (2009) service-learning program planning model (SLPPM)	
Figure 2.2. Image of Whitley and Walsh (2014) service-learning framework	
Figure 4.1. Image of garden built in March 2016	64
Figure 4.2. Image of garden rebuild in November 2017	70
Figure 5.1. Image of Sandmann, Kiely, and Grenier (2009) service-learning program planning model (SLPPM)	
Figure 5.2. Proposed Elementary Planning Model	.103

LIST OF ABBREVIATIONS

EDI	Explicit Direct Instruction
	1
GBL	Garden-Based Learning

CHAPTER ONE

INTRODUCTION

This dissertation is a report of an interpretive case study on the planning and implementation of a service-learning project (SL). The study was primarily based on interviews and observations of third grade teachers in a suburban school district who were conducting a service-learning project in their classroom. The service-learning project included managing a garden and donating harvested crops to families in need in the community. This first chapter introduces the background of the study, states the problem and describes the significance of the study.

Background of the Study

Service-learning is becoming a widely documented teaching strategy at the high school and college levels, but literature is lacking at the elementary level. Empirical studies focused on higher education are the majority; a meta-analysis found that 68% of studies before 2008 focused on college undergraduates. Disagreements about the definition of service learning continue in the literature because there is a "division of opinion in the field regarding whether service-learning is a philosophy of education, a curricular tool, or a program design" (Billig, 2000). Researchers try to distinguish service-learning from volunteer and community service, internships, or peer tutoring, which can lead to discrepancies in a definition. Although a universal definition is lacking, most include connecting service to academic curriculum, and/or the use of

reflection in the learning process, and/or teaching civic responsibility and strengthening communities (Eyler & Giles, 1999).

Studies suggest that students benefit from participating in service-learning experiences in the classroom (Killen & Turiel, 1998, Eyler & Giles 1999, Scales, 2000, Celio, Durlak, & Dymnicki, 2011, Ponder, Vander Veldt & Lewis-Ferrell, 2011). These benefits include increasing empathy for others, increasing community engagement, academic success, increasing self-esteem, among others. To be beneficial, the National Youth Leadership Council developed the essential elements for effective service learning programs in 1998. Elements necessary for successful service-learning programs include reflection, linking programs to academic standards, incorporating youth voice, and involving community partners (Celio, Durlak, & Dymnicki, 2011).

Although there is an extensive amount of literature on the benefits of service-learning for adolescents and young adults, literature is sparse on the effects of service-learning for elementary or pre-adolescent students. In a meta-analysis, Celio, Durlak, and Dymnicki (2011) examined 62 studies and only three focused on elementary aged students. Wang, Greathouse & Falcinella (1997) studied the self-esteem of 187 elementary and secondary students participating in a serice-learning program. They had students participate in an inventory measuring their self-esteem prior to and after the program. They found that the results at the elementary level were less effective and suggested service-learning should be advocated more enthusiastically at the secondary level rather than elementary. In 1999, Drake Dones studied third and fourth graders participating in service-learning projects. She found that fourth graders scored higher, though not statistically significant, than the control group in their sense of community as

well as their self-efficacy beliefs regarding their ability to influence the community. Additionally, Larkin and Mahoney (2006) surveyed sixth graders attending an elementary school to assess the positive development of students participating in a youth service program. Data were self-reported by students, but suggested that students who participated in a service-learning program showed increases in empathy and a sense of empowerment. Finally, Soslau and Yost (2007) specifically focused their study on urban fifth graders. Based on data collected from school resources and surveys, they found that students in service-learning programs were absent and suspended less. They also found that these students did show more eagerness to learn the content. These four studies were the only studies found focusing on the elementary level, and are further discussed in chapter two. This study focused on the elementary school classroom to provide further literature.

Also, elementary teachers are not the focus of the studies found. The studies reviewed focus on student outcomes, and if teachers are the focus it is pre-service teachers participating in service-learning as a student in teacher preparation courses. This study focuses on in-service teachers of various experience levels because we need to understand teachers' understanding and perspectives to ensure they can be successful implementing service-learning. These studies are explored in depth further in chapter 2.

Instructional planning is an important component of any new teaching strategy. Elementary school teachers need to plan each part of their school day to ensure that students are engaged and learning. Literature focused on instructional planning strategies is widespread, but most studies suggest that teachers plan using teacher manuals and scripted resources (McCutcheon, 1980; Sardo-Brown, 1990; Kagan & Tippins, 1992;

Oguz & Bayindir, 2009). They find instructional activities that will fill up time in the classroom from these resources given to them by the school or district (Koeller & Thompson, 1980; Zahorik, 1975). Service-learning curriculum does not always offer teacher manuals or other resources, so teachers have to develop curriculum on their own. This study focuses on the instructional planning strategies teachers use to implement service-learning in their classrooms to learn how they can be better supported by administration.

Finally, the garden-based learning (GBL) component of this study is the avenue that the service-learning and academic standards are presented to the students. In this study, the students and teachers are implementing a service-learning project as grantee winners from the non-profit organization entitled Katie's Krops. Katie's Krops provides funds to kids around the country for them to build and maintain a garden in their community. All the crops harvested are donated to families in need within the community. Katie's Krops began in 2008, when Katie Stagliano brought home a cabbage seedling from school. She planted that seedling in her backyard and watched it grow into a 40-pound cabbage. Katie donated that cabbage to a food kitchen where it fed 275 people in her community. It was then that Katie's Krops blossomed and she started an entire garden to feed many more people in her community. As of today, Katie's Krops sponsors 100 gardens nationwide, and awards up to 20 more grants each year. For more information on this organization, visit www.katieskrops.com. I was Katie's sixth grade science teacher and volunteered with her organization for several years before pursuing my degree. As a volunteer, I helped Katie fund three other gardens in the same school district this study takes place. All three of these schools struggled to meet grantee

expectations and successfully maintain their gardens. Although the organization attempted to reach those teachers, it was difficult for Katie's Krops to receive responses from them. It was these experiences that led to my questioning of teacher practices when implementing a service-learning project.

As recipients of the grant, teachers will work with students to build, plant, maintain, and harvest the garden. While doing so, teachers should use the garden as a curriculum tool to incorporate academic standards. Although, GBL is not the focus of this study, it is the context in which service-learning is implemented and current research is discussed in chapter two.

Statement of the Problem

Service-learning is a recent trend in academic settings. Most research in service learning focuses on students at the high school or university levels (i.e. Astin, Vogelgesang, Ikeda & Yee, 2000; Davis, 2013; Eyler, 2000; Gardner & Baron, 1999; Hurd, 2006; Markus, Howard, & King, 1993; McKenna & Rizzo, 1999; Morgan & Streb, 2001; Steinke & Buresh, 2002; Weisskirch, 2003), but many elementary and middle schools are now implementing this practice. Exploration for studies related to service-learning in the elementary setting is discussed in chapter 2. Teaching practices and strategies as the elementary level are usually different than high school and college levels. Elementary teachers' planning is usually influenced by teacher editions and curriculum guides (McCutcheon, 1980; Kagan & Tippins, 1992; Oguz & Bayindir, 2009). In service-learning projects there are no teacher editions, and teachers are not necessarily guided by script or district plans. The purpose of this study was to explore and gain insight into how elementary school teachers use service learning and to examine

underlying factors that shape and influence how teachers plan for and implement service learning projects. This study helped me to understand the meaning of the events, situations, experiences and actions that teachers are engaged in while implementing a service learning project in their classroom.

Research Questions

Based on the background of the study and problem statement, two research questions were developed for this study.

- 1. How does elementary teachers' instructional planning influence their understanding and implementation of service learning?
- 2. How are elementary teachers' perceptions and implementation of service-learning influenced during the use of a garden based program in the classroom?

Significance of the Study

This study aims to add to current literature in service-learning at the elementary level. For teachers to buy in to the ideas that service-learning is beneficial and should be implemented, they must perceive it as a positive addition to their workload. Teachers also need to be provided support in their planning and implementation. This study's purpose is to gain insight into elementary teachers' current perceptions and planning strategies. By gaining insight we can develop a planning model for service-learning and provide professional development opportunities for elementary teachers who are implementing service-learning in the classroom.

Katie's Krops is a growing organization and has grown from one garden to 100 gardens in 30 different states. All gardens are maintained by children aged 9-16.

Although most gardens are located at the homes of grant recipients, the Katie's Krops experience has promise as a potential service-learning opportunity for many schools. the organization already has evidence of service-learning benefits for students, but this study focuses on the teachers who are implementing the projects. If this organization can understand the teacher perspectives and the curriculum constraints under which they work, the staff can begin to work on adding Katie's Krops to more schools across the country.

CHAPTER TWO

LITERATURE REVIEW

The purpose of this study is to explore and gain insight into how elementary school teachers use service learning and to examine underlying factors that shape and influence how teachers plan for and implement service learning projects. This study will provide some insight into the meaning of the events, situations, experiences and actions that teachers are engaged in while implementing a service learning project in their classroom. This study will add to current research by focusing on elementary school and teacher perspectives. I hope to provide insight into instructional planning strategies for service-learning. Based on this goal, two research questions have been developed.

- 1. How does elementary teachers' instructional planning influence their understanding and implementation of service learning?
- 2. How are elementary teachers' perceptions and implementation of service-learning influenced during the use of a garden based program in the classroom?

Conceptual Framework

The conceptual framework for this study is grounded in social constructivism.

Social constructivist theories are influenced highly by the research of Vygotsky.

Vygotsky (1978) focused on the influence of social interaction on cognitive development.

He claimed that an individual's development cannot be independent from the

environment in which he or she is situated (C. Anderson, 2007). Learning is complex and unpredictable, and is developed through interactions among students and their peers as well as students and their teachers (Collins & Clarke, 2008).

Brown, Collins and Duguid (1989) suggest that cognition also cannot be independent of the environment or situation in which one learns. Activities and situations are necessary parts of learning and cognition, and we should "embed learning in activity and make deliberate use of the social and physical context" (p. 32). Choi and Hannafin (1995) explain that understanding cannot be separated from the context in which it occurs, and emphasize the importance of learning in real-life contexts. They suggest that knowledge is acquired by embedding the concepts in authentic experiences and by creating the opportunity for the learner to interact in the context of real life situations. Situated cognition and social constructivism both influenced the development of the Reggio philosophy that is labeled as emergent curriculum.

Emergent curriculum is a practice that has emerged from early childhood education, specifically the Reggio Emilia approach (Jones, 2012). This practice is evident where the "eventual curriculum that the teacher oversees in not prescribed but coevolves during the process of engaging with the learners in the classroom" (Collins & Clarke, 2008, p. 1010). This thought challenges the evolvement of standardized education. The tightly structured learning environments and standards are lacking the complexity that is necessary to foster creativity, exploration and discovery (Collins & Clarke, 2008). Rinaldi (1993) believes that "the potential of children is stunted when the endpoint of their learning is formulated in advance" (p. 104). Emergent curriculum focuses on the processes of learning and is naturally individualized as it is co-constructed

by teachers, students, and the environment itself. The classroom activities influence and develop the curriculum objectives rather than the curriculum objectives predetermining the classroom activities (Jones, 2012).

Because there are no planning models or teacher editions for service-learning projects, the curriculum must emerge through the interactions with students and the environment. Gardening, just like learning, is unpredictable and the curriculum for each project and classroom may have some slight differences.

This literature review focuses on research on service-learning, instructional planning, and although it is not the focus of the study, I will conclude with discussing garden-based learning to show the literature surrounding the medium the teacher participants use to implement their service-learning project.

Service - Learning

This section begins with a discussion of several recommended practices for implementing effective service-learning programs leading to a concrete definition of service-learning to be used in this study. Then it will explore the empirical studies that provide evidence to support the beneficial nature of service-learning for students, as well as some limitations of these studies. This discussion will include benefits for students at all levels, as there are limited studies focused on elementary students. Finally, this section will discuss literature that focuses on elementary school teachers.

Elements of Service-Learning and Definition

The National Youth Leadership Council developed the essential elements for effective service learning programs in 1998. It is important to add that the practices discussed were chosen based on the research available for each element. In most studies,

it was highly important that student reflection was included in the program. Based on the experiential learning theory, learning occurs through repeated cycles of action and reflection (Kolb, 1984). Reflection has become an integral part of service-learning and considered the most essential for the success of a program (Celio, Durlak, and Dymnicki, 2011). Reflection or "reflective observation" is necessary for learning (Kolb, 1984). Kolb (1984) defines reflection as an exercise to understand and conceptualize the experience. Dewey (1997) believes reflection to involve understanding by observing problems and then testing various solutions.

Experience alone is not sufficient for learning, and reflection is necessary because it enables learners to gain the most benefit from the experience. According to Eyler and Giles (1999), students who were engaged in highly reflective service-learning experiences were more likely to develop a deeper understanding of global situations and issues. Reflection leads to the conceptualization of abstract ideas so that future success in similar situations is possible (Dewey, 1997; Kolb, 1984). In service-learning, reflection is important as students need to be able to evaluate information and controversial perspectives to make decisions for action. Sometimes the action they decide to take will need to be modified in the future. "Service-learning provides the opportunity for students' assumptions about particular social problems and community issues to be challenged through experience" (Eyler, 2002, p. 522). Reflection on these experiences may be what promotes cognitive development in students (Eyler, 2002).

Other components that are considered essential for effective service learning are: linking programs to academic standards, incorporating youth voice, and involving community partners. According to a meta-analysis of sixty-two service-learning

programs, those that used three or four of the recommended practices had a significantly higher effect size than programs that did not use any (Celio, Durlak, and Dymnicki, 2011). Studies show that explicitly linking service-learning to academic objectives results in an increase in problem solving skills and other improved learning outcomes (Conrad and Hedin, 1982). Also, students who are given the opportunity to choose the issues to address within their service-learning programs have higher chances of developing positive outcomes (Billig, Root, and Jesse, 2005). According to data collected from service-learning educators, student leadership was critical to the success of the project (Ponder, Vander Veldt & Lewis, 2011). In a study conducted by Morgan and Streb (2001), it was suggested that having a voice helped to develop citizenship in students. Those students who reported they had a voice in the project also had higher scores in self-efficacy, political engagement, and attitudes towards out-groups. Finally, programs that have community partners are more likely to have positive impacts on both students and the community (Ponder, Vander Veldt & Lewis, 2011).

Although there are many empirical studies on elements of service-learning, there is a lack of a universal definition of service-learning (Eyler and Giles, 1999). Because of a lack of a definition, there is much debate on the difference between community service and service-learning, and whether outcomes differ for students participating in the experiences (Astin, Vogelgesang, Ikeda, and Yee, 2000). Without the connection to academic curriculum and reflection, experiences would be considered community service. Most definitions of service-learning include connecting service to academic curriculum, and/or the use of reflection in the learning process, and/or teaching civic responsibility and strengthening communities (Eyler & Giles, 1999). "Differences in

definition reflect a division of opinion in the field regarding whether service-learning is a philosophy of education, a curricular tool, or a program design" (Billig, 2000, p. 659).

It is important to establish a working definition for service-learning that will be used in this paper. For this study, the definition of service-learning has been adapted from Eyler and Giles (1999) as well as Kielsmeier et al. (2004). Service-learning is an experiential education method that integrates the academic curriculum with project-based learning while students are also working to accomplish real change in the community.

Experiential education is defined by behaviorist David Kolb. He states that learning is "the process whereby knowledge is created through the transformation of experience" (1984). Experiential learning also suggests that learning should be defined with an emphasis on the process of adaptation and not defined in terms of outcomes. It is suggested that when one learns through direct experience, one learns faster, the knowledge is retained longer, and the appreciation is greater (Sharp, 1948). As the definition of service-learning includes project-based learning, it is important to also define this strategy. Project-based learning is an approach that engages students in investigating a real-life problem and working collaboratively to develop a plan that addresses the problem (Krajcik et al., 1994). Combining these two theories of pedagogical practices into a service-learning program allows students to achieve deeper understanding of content and develop life skills (Kielsmeier, 2004).

Benefits of Service-Learning

Research suggests that service-learning is beneficial for students for a variety of reasons. Service-learning programs have shown positive outcomes in areas such as civic responsibilities, attitudes and beliefs towards school and learning, academic success, and

social and emotional development. The following section reviews studies focusing on all academic levels because only five studies were found in my search focusing on elementary students. In my literature exploration using the ERIC database, I searched using the terms "service-learning" to start; this resulted in 21,114 articles. To narrow the search for empirical studies focusing on elementary level students, I used a variety of terms including "pre-adolescent," "elementary school," and "primary level." This narrowing of the search resulted in 1,131 articles. However, only five articles focused on service-learning implemented in elementary classrooms. Most articles in this search were focused on the benefits of service-learning on university students whose service-learning experience involved tutoring or other interactions with elementary students or elementary teacher candidates (Barnes, 2016; Chien, 2017; Cone, 2009; Eppler, Ironsmith, Dingle, & Errickson, 2011; Tinkler, Hannah, Tinkler, & Miller, 2015; Wall, 2017; Wilson, Bradbury & McGlasson, 2015). This lack of literature and the empirical evidence show that there is a need for further research on service-learning implementation at the elementary level.

Elementary students. At the elementary level, Wang, Greathouse & Falcinella (1997) studied the self-esteem of 187 elementary and secondary students participating in a service-learning program. Students participated in an inventory measuring their self-esteem prior to and after the program. They found that the results at the elementary level were less effective and suggested service-learning should be advocated more enthusiastically at the secondary level rather than elementary. This study is the only one found that suggested service-learning may not be beneficial for elementary students because of their developmental level. However, there was no explanation of the specific

format of the programs implemented at each level. Perhaps program differences influenced the outcomes.

In 1999, Dones studied third and fourth graders participating in service-learning projects. She found that fourth graders scored higher, though not statistically significant, than the control group in their sense of community as well as their self-efficacy beliefs regarding their ability to influence the community. This study suggested that service-learning was beneficial more for fourth graders than third graders. The explanation for this outcome included developmental level of students and the amount of meaningful reflection students could contribute (Dones, 1999).

Lakin and Mahoney (2006) conducted a study with sixth graders. It is important to note, that these students may only be considered at the elementary level because the study site was the elementary school in the district. Sixth graders may also be considered young adolescents, meaning that there may only be three studies found involving true elementary students. In this study, sixth graders were assigned to experimental and control groups. The experimental group participated in the service-learning program and the control group did not. Based on self-reported data in a pre- and post-survey, it was suggested that participation in a service-learning program can lead to positive development of students, including their empathy of others and personal sense of empowerment. This study focused on younger students, but did not involve students at the true elementary level.

Soslau and Yost (2007) specifically focused their study on urban fifth graders. Within their study they had one control group who received traditional lessons and an experimental group who received traditional lessons integrated with service-learning.

Through data collected from journal entries, benchmark test scores, and attendance records, they found that students in the experimental group were absent less and were suspended less. They also found that the experimental group did show more eagerness to learn the content and they showed great enthusiasm about their service-learning project. This increase in motivation may also account for the stronger academic growth they measured over time in the experimental group.

More recently, Scott and Graham (2015) used a pre/posttest design to study empathy and community engagement in pre-adolescent children. 155 first, second and fifth graders participated in a five session service-learning experience and paired-samples *t*-tests showed that positive increases occurred over time. However, only fifth grade participants showed significant change in civic efficacy, suggesting that first and second graders may not be developmentally capable to achieving that growth. This study has limitations because the service-learning program was only five sessions long, and led by the researcher, not the classroom teacher. Also, the pre- and post-tests were read aloud to the first and second graders, which is a strength in research methodology but could have led to teacher influence in answers. Finally, this study did not contain a control group, which did not account for developmental changes naturally occurring over the course of the project.

In the elementary studies found, either there was not a control group or experimental and control groups were chosen by classroom, meaning other factors could have contributed to the outcomes. Teacher and classroom variables may have existed in the studies. In these studies, there was no mention of how teachers implemented the

projects, whether there were knowledge differences among teachers, or how the teachers arranged the classroom environment.

Post-elementary students. Studies reported on students' concern for others' welfare and whether students believed it was important to help others in need. Scales et al. (2000) found that there was a positive effect of student concern for others in students that had participated in middle school service-learning programs. According to a Likert scale type assessment, students that were randomly assigned to the service-learning classes maintained their sense of concern for others' welfare. In the control group, there was a decline in these scores over the year in the absence of service-learning opportunities. Among adolescents and young adults there is a sense of responsibility to help those close to them, but the satisfaction of helping those more distant was greater (Killen & Turiel, 1998). Students were asked to share their attitudes and beliefs about helping others, and there were no age or gender effects on the answers. All students in the study believed that one should help others even when there is a personal sacrifice involved. They also shared that there was a higher sense of satisfaction when they helped a stranger rather than a close friend or relative (Killen and Turiel, 1998).

Also based on Astin's (2000) study, college students who have participated in service-learning opportunities are more likely to choose a future career in a service field. In the study, service-learning had one of the strongest positive effects on students' career decisions. If students are given the opportunity to serve the community, their sense of civic responsibility is fostered. Also, as suggested by these studies, in order to maintain students' sense of civic responsibility, service-learning opportunities should be offered continuously across a student's educational career.

Middle school students who were enrolled in a service-learning course were more likely to perceive that school provides opportunities for independence and growth (Scales et al., 2000). This is also coupled with a higher pursuit of goals and higher GPA. These results suggest that service-learning does lead to beneficial outcomes in attitudes towards school as well as academic success. Teachers who have used service learning strategies in their classroom report an increase in motivation among their students (Ponder, Vander Veldt, and Lewis-Ferrell, 2011).

Scales et al. (2006) compared high socioeconomic middle school students to lower socioeconomic students in terms of service learning and their academic success. It was determined that higher socioeconomic students with service experience had the highest scores in commitment to learning assets, grades and attendance. However, lower socioeconomic students with service experience reported being more committed to learning, getting better grades, and missing fewer days of school. Most of these scores were also higher than high students with no service experience. These data suggest that service learning opportunities may help to reduce the achievement gaps in our schools (Scales et al., 2006). Perhaps offering these opportunities for younger students would begin to close the achievement gap earlier.

Finally, service-learning opportunities are suggested to improve aspects of youth development. Allowing students to become involved in the community has been associated with the positive development of self-esteem, self-efficacy, social skills, problem solving and critical thinking skills (Celio, Durlak, & Dymnicki, 2011). Based on these studies, it is evident that service-learning may be beneficial for all students.

Elementary Teachers

In Billig's (2000) analysis of literature, it was found that educators in schools with strong service-learning programs reported more positive school climate. She also stated that educators involved in service learning engage in more discussions of teaching and learning and of best ways for students to learn. These teachers participate in more reflection and analysis to determine how to improve educational services to students. Eyler (2002) also suggests that service-learning can have a positive impact on teachers' attitudes related to social responsibility.

Most studies involving elementary teachers focus not on in-service teachers, but pre-service teachers while they are students in a teacher preparation program. This just reiterates the focus on service-learning in university settings. Most studies in this area focus on pre-service teachers participating in an undergraduate course that involves visiting local elementary schools as mentors/ tutors to those students (Barnes, 2016; Chien, 2017; Cone, 2009; Eppler, Ironsmith, Dingle, & Errickson, 2011; Tinkler, Hannah, Tinkler, & Miller, 2015; Wilson, Bradbury & McGlasson, 2015).

Wilson, Bradbury, and McGlasson (2015) explored the service-learning experiences of preservice elementary teachers in their science methods course. 42 preservice elementary teachers wrote written reflections and were interviewed at the end of the course following their service-learning experiences working with elementary students. This study suggests that participating in a service-learning experience as a preservice teacher can positively impact the teacher in three main areas, academic course content, pedagogical strategies, and their interactions with students. Participants stated that they felt their experiences enhanced the science content and allowed them to see the

connection between the content and the people and issues in the community. They also suggested that their experiences allowed them to become more confident in science pedagogical methods, thus positively impacting their teacher identity. Finally, participants felt connected to the students with whom they interacted and could sense they were having a positive impact on the school community.

Wall (2016) conducted her study with 23 preservice teachers who participated in at service-learning opportunity as a part of an entry-level education course. The preservice teachers volunteered at a highly diverse Title I elementary school where they taught science curriculum in an outdoor space, helped to restore the school's nature trail, and built a school garden. Reflective papers and surveys were collected from students before and after their experience. Through constant comparative data analysis, Wall suggests that the service-learning experience had positive outcomes on both the preservice teachers and the elementary students they mentored. Preservice teachers were able to gain an understanding that teaching is complex and requires thorough planning. They also learned that the children were less "different" than they expected and their interactions could positively impact the students' lives. Benefits for the 41 fourth graders that were mentored through the project included increased self-esteem and social skills.

DeJarnette and Sudeck (2016) implemented a mixed method design to study the impact that service-learning might have on the preparation of elementary teacher candidates. Researchers selected 38 pre-service elementary teachers, and presented them an introduction to service-learning. They were provided with the definition and examples of service-learning, and "then brainstormed ideas for designing and implementing an interdisciplinary teaching unit with service-learning embedded, for an overall

instructional design" (p. 141). It is important to note, that the definition of service-learning used for pre-service teachers was not provided in the study. These teacher candidates were then required to implement a service-learning project during their clinical practice semester. Data were collected through pre- and post-surveys as well as focus groups and document review. Several findings were revealed, including that implementing such a project increases teachers' understanding of service-learning and their teaching efficacy as well. These teacher candidates gained confidence in developing an integrated curriculum and prepared them for teaching in high needs communities. This study neglected to provide specifics on how teacher candidates were prepared to implement a service-learning project, but found that teachers who were provided the professional development felt more confident in the classroom.

These studies highlight the literature focusing on only preservice elementary teachers and their participation in service-learning opportunities during their teacher education courses. The studies show that participating in service-learning can positively impact student expectations and beliefs, teacher efficacy, and content knowledge, but fail to focus on how in-service teachers can implement or benefit from service-learning in their classrooms.

Limitations of Service-Learning Literature

There were a few limitations found in the existing service learning studies. Only four studies were found that focused on elementary students. These studies were described above (Dones, 1999; Lakin & Mahoney, 2006; Soslau & Yost, 2007; Wang, Greathouse & Falcinella, 1997). In the meta-analysis by Celio et al. (2011), only 5% of studies focused on elementary students. Most studies focused on older students and

young adults attending college. Although some studies focused on teacher candidates participating in service-learning, none of the literature focused on in-service elementary teacher practices. This gap in the literature suggests that elementary teachers do not engage in service learning activities. To the contrary, the participants in this study strove to implement a service-learning project within an existing elementary curriculum. However, documentation of their struggles and successes do not have existing scholarship that might confirm or provide alternate narratives to the findings that emerge in this study.

Secondly, most data collected in the previous studies were self-reported data, rather than direct observations. Self-reported data may not be considered as valid as other types of data collection (Celio et al., 2011). Students who self-report data may be influenced by their peers, teachers, or other factors that cause them to provide invalid data.

Instructional Planning

In this section, I will examine instructional planning practices of elementary teachers. The focus will be on how in-service teachers plan for daily instruction and the factors that influence that planning. Finally, I will discuss the planning specifically for service-learning projects.

Daily Planning

Instructional planning has been studied for years. It can be defined as the systematic development of instructional requirements, arrangement, conditions, materials activities, and the evaluation of teaching and learning (Panasuk & Todd, 2005). Tyler (1949) developed a model for planning that has been taught in pre-service programs. His

model is a logical sequence that suggests that teachers plan for instruction by developing objectives first, then instructional activities, then assessment. This method of planning wrongly suggests that in all human action, a person decides first on a goal and then puts in time and energy to achieve it. It suggests that the ends are separate from the means, which is incompatible with some education philosophies (Zahorik, 1976). Tyler's planning model emphasizes teacher power and control and fails to provide opportunities for student independence and student-led learning. This model is still taught in current teacher preparation programs, along with a different approach to unit planning labeled "backward design." This backward design focuses first on the outcomes of the lesson as well as the evidence that the outcomes have been successful (Wiggins & McTighe, 2005). Once the specific goals are established for the unit, the teacher then plans the assessment or evaluation of the students. Although this backwards design is a different approach than Tyler suggests, I would suggest that it is still a linear, formulaic approach.

Since Tyler's linear model was developed, researchers have studied whether teachers use this model in practice. Several studies have found that experienced teachers do not use the objectives first model (Young, Reiser, & Dick, 1998). In fact, studies have found that teachers do not even see a need for lesson planning, and they tend not to write lesson plans on paper. In a survey of 174 elementary school teachers, over 50% stated that they do not prepare plans and find it unnecessary to prepare plans (Oguz & Bayindir, 2009). It was also found that teachers' lesson plans are not constructivist based or student centered because they plan their lessons without taking individual differences and environmental conditions into consideration (Oguz & Bayindir, 2009).

Although Tyler's objective first model is taught in pre-service education, other models may represent a more accurate view of teacher practices (Reiser, 1994). Teachers tend to first plan instructional activities that will fulfill the class time. Many times, the objectives arise from the activities that are planned, instead of the end result being separate from the means as Tyler suggests (Koeller & Thompson, 1980; Zahorik, 1975). McCutcheon (1981) studied 12 elementary school teachers to learn their planning methods. She found that most teachers do not start with the objectives of the lesson, but choose an activity selected from available sources such as teacher editions, curriculum guides, or district issued materials. It was also discovered that teachers write a brief outline of activities or topics they will cover in a planbook only because it is required by a principal. Most planning is done mentally, prior to any plans written, and many times, those plans change while teaching is occurring (McCutcheon, 1980).

Sardo-Brown (1990) surveyed 33 teachers with a mean of 13 years teaching experience to determine their daily planning practices. Her results were consistent with previous studies. She found when teachers were planning for daily instruction, activities seemed to be the most pivotal decision over objectives and students. However, teachers did consult resources such as textbooks or curriculum guides to look at the next day's goals or objectives. Appleton (2002) also found that elementary teachers believed that choosing activities that were hands-on, engaging, manageable, and use readily available equipment was an effective way to teach science. This perception led to a fragmented science curriculum that did not allow for students to develop a conceptual understanding.

Factors that Influence Planning

McCutcheon (1981) and Sardo-Brown (1990) both found similar factors that influence teacher planning. McCutcheon studied twelve teachers in grades one through six. Through classroom observations, planning sessions, and interviews, she found that the main influence on teacher planning was their coursework in their teacher preparation program. The teachers in her study were influenced by a lack of education on planning. McCutcheon also found that the availability of materials and the administrative practices and policies highly influenced teacher planning. Sardo-Brown surveyed twelve middle level teachers to discover the top ranked influence on teacher planning was student learning followed by lesson goal beliefs and district curriculum guides. These factors also align with other studies (Yinger, 1980; Shavelson & Stern, 1981; Borko & Niles, 1982).

During Yinger's (1980) ethnographic study, he spent 12 full weeks observing one teacher's planning strategies and teaching practice. He found that this first and second grade teacher was influenced most by activities and materials available for those activities. He also found that student characteristics and abilities influenced planning more often than other factors.

Egeler (1993) conducted a Likert-type survey of 11,225 teachers in the state of Alabama. He found five factors that influenced teacher planning decisions. They included, state regulations, professional expectations or guidelines established by administration, textbook influence, classroom management experience, and undergraduate teacher education programs. This study is limited because it only focused on secondary teachers, and does not include elementary or middle level teachers.

Oguz and Bayindir (2009) found that most elementary school teachers develop plans based on teacher guides and unit yearly plans. Only 40% of the teachers surveyed stated that they always prepare their lessons plans in terms of the learning outcomes in the curriculum.

These studies illustrate that there are three connected factors that influence a teacher's planning. They include availability of materials, teacher beliefs and attitudes, including beliefs about student abilities, teacher skills and knowledge, and teacher perceptions of administrative policies and events within the school.

Planning for Service-Learning

The literature focusing on a framework for service-learning is very limited. In their study, Sandmann, Kiely, and Grenier (2009) compared three cases of service-learning in graduate level courses and focused on the planning rather than outcomes for students. They suggested a planning model for service-learning programs at the graduate level (See Figure 2.1). Their model (SLPPM) is centered around four partners. These partners include students, faculty, community, partners, and the higher education institution. Each partner holds "a stake in the success of a service-learning program, all have influence over the process, and all have interests to maintain and cultivate" (Sandmann, Kiely, & Grenier, 2009, p. 23). It is important that each partner is included in each of the proposed dimensions within the planning process. The SLPPM includes five dimensions, research, relationships, roles and responsibilities, representation, and resources. Each dimension is focused on a different element that each partner brings to the planning process based on their goals and intentions for the project. In their study, the research and relationship dimensions seemed to stand out as the most important

dimensions (Sandmann, Kiely, & Grenier, 2009). They found that incorporating research opportunities throughout service-learning courses helped ensure greater understanding and clarity among the partners. They also found that successful planning required nurturing relationships and fostering communication among all the partners.

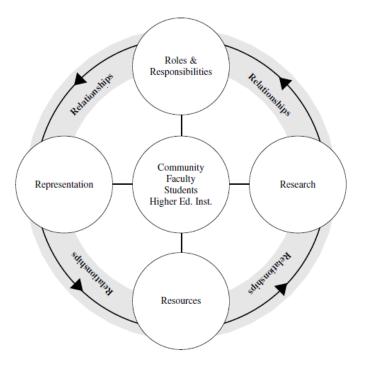


Figure 2.1. Image of Sandmann, Kiely, and Grenier (2009) service-learning program planning model (SLPPM).

Whitley & Walsh published their framework in 2014; however, they also only focused on the design of service-learning courses at the collegiate level. I have included their framework to highlight the many components necessary to plan for when implementing a service-learning project (see Figure 2.2). This recent planning model focuses on the student participants and does not include the relationship component that is shown in figure 2.2.

These studies show that there is a need for a planning model for service-learning, but neglect to include elementary programs in the model. Planning for elementary students is different than university students.

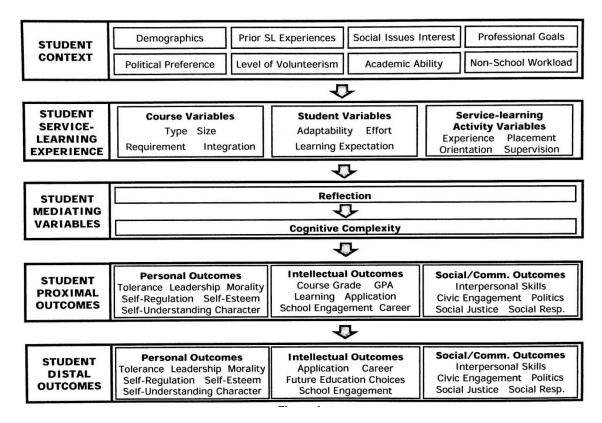


Figure 2.2. Image of Whitley and Walsh (2014) service-learning framework.

To summarize, most elementary teachers do not use a linear, formulaic planning strategy when planning for instruction. They use teacher manuals and other school provided resources to plan for activities and objectives seem to arise from these activities. Most experienced teachers no not write lesson plans unless they are required by a principal, and most planning occurs mentally. There are factors that influence planning, including teacher beliefs and attitudes, content knowledge, and perceptions of school interactions and policies. In planning for service-learning there are models available at the university level, but there is no literature suggesting a model for elementary levels.

Garden-Based Learning

In this section, the historical background of garden-based learning (GBL) will be discussed as well as the theoretical frameworks influencing GBL. Current research will be examined in order to discuss the outcomes and benefits of a GBL program.

Before discussing GBL it is important to give a definition. Garden-based learning "encompasses programs, activities, and projects in which a garden is the foundation for integrated learning, in and across disciplines through active, engaging, real-world experiences" (Desmond, Grieshop & Subramaniam, 2002, p. 7).

Historical Background

GBL is not a new pedagogical tool in education. In the early 1900s, influenced by the work of progressive educational leaders like Dewey, Montessori, and Rousseau, GBL was encouraged to teach students about natural phenomena and to foster the appreciation of their natural surroundings (Kohlstedt, 2008; Williams & Dixon, 2013). Garden-Based Learning in the United States was inspired by programs already in place in Europe and Australia. During World War I, school gardens became popular as they were used in the war effort to provide food for the communities. These gardens provided a learning environment for students to learn the practices of farming and agriculture for food production. In the 1920's school reform shifted towards technology, and the GBL movement faded (Blair, 2009; Williams & Dixon, 2013).

In the past 20 years, GBL has become more popular in schools once again.

School gardens have gained popularity since the increase in childhood obesity and the stress of standardized tests in education. Public health organizations stress the use of school gardens to teach about the importance of fruit and vegetable intake as well as

provide students with physical activity to decrease body fat percentages and BMI of students (Blair, 2009). Outdoor education proponents also encourage the use of school gardens to get students out of the traditional classroom and into the real world. The organization "No Child Left Inside Coalition" was established to support legislation to ensure that every child receives environmental literacy as a part of their education. The No Child Left Inside act would amend the No Child Left Behind Act to include environmental education in schools (Connecticut Department of Energy and Environmental Protection, 2009).

Theoretical Framework of Garden-Based Learning

Theoretical frameworks influencing Garden-based learning include the work of Dewey, Vygotsky, Kolb, and Gardner (Bowker & Tearle, 2007; Libman, 2007; Rahm, 2002). Dewey and Kolb stress the importance of experiences in learning. Learning begins with an experience that the learner perceives as meaningful. A meaningful, quality experience is one that influences and promotes future success in similar circumstances (Dewey, 1938). According to Dewey, these experiences should mimic real life situations. Vygotsky (1978) stresses the importance of the context in learning. He perceived the environment and social interaction as the source of learning and development (Rahm, 2002). Finally, Howard Gardner's theory of multiple intelligence frames school gardens as he has added the naturalistic intelligence to his theory. Gardner suggests that students have several different areas of intelligence including logistic, linguistic, kinesthetic, and naturalistic. Providing students with opportunities to use their multiple intelligences will influence and improve learning and academic success (Gardner, 1999). School gardens provide these opportunities.

Outcomes and Benefits of Garden-Based Learning

Garden-based learning programs have increased in the United States. In California, as of 2005, there were over 2000 schools reporting the use of school gardens for the enhancement of academic curriculum or extra-curricular activities. This is a 24% increase from 1999. Most of California's gardens are in elementary schools (Graham, Beall, Lussier, McLaughlin, & Ziden-Cherr, 2005).

Studies suggest many positive outcomes of garden-based learning. In a review of empirical studies by Williams and Dixon (2013), about half of the studies on GBL focused on grades three through five and most evaluated the impact of programs on science achievement when measuring academic effects. Out of 40 academic outcome studies, 14 measured science outcomes. Rahm (2002) evaluated an inner-city youth garden program and the impact of the experience on the science knowledge of participants. Twenty-three participants, ages 11-14, engaged in an eight-week summer program where they worked in a garden, nurturing, harvesting, and marketing their crops. It was found that science content emerged from the youth's interactions with the garden and each other. Science became accessible to the youth through their involvement in garden activities, and through their discourse and connections with the program leaders (Rahm, 2002). This study validates theories of Vygotsky (1978) and Dewey (1938) by demonstrating that "children can become masters of science embedded in their everyday communities and practices if provided with opportunities to do science that is meaningful and real to them" (p. 165).

Canaris (1995) provides a personal narrative of how she integrated a garden into the whole academic curriculum. She tells the story of how a community member

volunteered his time to teach the students how to plant a garden to grow healthy classroom snacks. This "snack garden" led to more than just healthy snacks. The 40 students in grades 1 through 4 used science and math to build the garden and plant the crops they desired. They used reading and language arts to research the different types of plants and to write letters to local businesses for donations. The students also added social studies content as they learned the economic value of the food production industry in their community. Canaris states in her paper that the academic grades of her students improved when using the garden as a learning environment, but does not give any statistical evidence to support her claim.

McArthur's (2010) study suggests that a gardening program increases academic achievement. Through qualitative and quantitative research methodologies, this study examined the outcomes of a youth garden project at the Safe Haven After-School Program that was implemented with the help of the social work department at Tuskegee University. Fifty-five students aged 6-13 were members of the after-school program and participated in the youth garden project where they learned how to plant and care for their food crops. Activities included planting, weeding, irrigation, harvesting, and post-harvest handling. Academic GPA's were analyzed prior to and following participation in the program. Academically, grade point averages of students increased overall by 3.45 points. Reading and Science scores increased the greatest by 3.94 and 3.69 points respectively (McArthur, 2010). Students and mentors as well as program leaders were also interviewed to gain reflective data. Nonacademic outcomes that were reported included an improved work ethic in students, better teamwork and cooperation with peers, and increased life skills and self-confidence. These results are consistent with

other studies showing similar non-academic results (Blair, 2009; Bowker & Tearle, 2007; Williams & Dixon, 2013). Studies show that garden-based learning has outcomes other than just positive academic outcomes (Blair, 2009; Canaris, 1995; Ozer, 2007; Parmer, Salisbury-Glennon, Shannon, & Struempler, 2009; Sobel, 2001). Recent studies provide evidence that GBL programs improve self – efficacy, motivation, quality of school life, appreciation of nature, social development, connections with the community, problem solving and critical thinking skills (Williams & Dixon, 2013). Finally, research has shown that GBL also helps to improve students' nutritional knowledge, fruit and vegetable preferences, and dietary habits (M. Anderson & Swafford, 2011; Libman, 2007; Neustadter, Morris, & Zidenberg-Cherr, 2001; Sobel, 2001).

Summary

The purpose of this literature review was to examine research in instructional planning, service-learning and garden-based learning fields to establish the need for the current study. Service-learning is a curricular tool that engages students in community service while integrating academic standards, while garden-based learning does not include the community impact component. Research shows that both practices, service and garden-based learning have positive outcomes for students. Combining them may just increase the positive outcomes if recommended components are used in the development of the program. Research also shows that literature is sparse in the field to help teachers plan for the implementation of a service-learning project. There were no studies found that observed teacher planning sessions or studies that focused on teacher planning practices in the area of service learning.

This research can inform education practices. This research could be used to design a developmentally appropriate service-learning planning model for elementary teachers to use while integrating service-learning into all core content areas. By using both the recommended practices in service-learning, a model could be developed to engage students in a meaningful, authentic experience that fosters learning about the community and academic content. This research could also be used in teacher education programs to inform pre-service teachers the importance of experiential education practices such a service-learning and garden-based learning and develop different planning strategies they can use within their classrooms. Professional development can also be developed for teachers implementing a service-learning project in their schools. Teachers will need pedagogical knowledge to plan and implement an effective servicelearning project. Katie's Krops is a national nonprofit organization that is expanding each year; it is important to provide teachers with the knowledge and practices necessary to effectively implement a program such as Katie's Krops that will help people in need in the community.

CHAPTER THREE

RESEARCH DESIGN AND METHODS

The purpose of this study was to explore and gain insight into how elementary school teachers use service learning and to examine underlying factors that shape and influence how teachers plan for and implement those service learning projects. This study is framed within an interpretive research discourse. "In interpretive research, education is considered to be gained from an inductive, hypothesis- or theory-generating (rather than a deductive or testing) mode of inquiry" (Merriam, 1998, p. 4). Interpretive study relies on the assumption that knowledge is dependent on lived experiences and refers to an understanding of the way one makes sense or meaning of his or her own world (Creswell & Miller, 1997). The participants in interpretive studies provide specific illustrations of their practices and internal perspectives and meanings. The data collected are naturalistic and descriptive. Data are collected through interactions between the researcher, participants, and the research setting using words rather than numbers like in quantitative research. The role of the researcher is to recreate the meaning of those studied rather than alter that meaning to fit his or her own biases (Bogdan & Biklen, 2007). "The investigator does not gain knowledge by espousing a rigid theory but forms it inductively from views and experiences of participants in the research" (Creswell & Miller, 1997, p. 37). It is with these assumptions that I conducted this study.

This study helped me to understand the meaning of the events, situations, experiences and actions in which teachers are engaged while implementing a service

learning project in their classroom. It is important to gain full access to the teachers' perspectives to understand how an authentic learning experience is implemented in elementary school. Current research in service-learning mostly focuses on student benefits (Celio, Durlak, & Dymnicki, 2011), and those that focus on perspectives of teachers are concentrated on teachers' perspectives of student achievement (Billig, Root, & Jesse, 2005). Very few studies were found in an elementary school setting, and those studies were focused on quantitative survey data self-reported by students, and did not focus on teachers. These studies were discussed in the review of literature in chapter 2 (Lakin & Mahoney 2006; Soslau & Yost, 2007; Dones, 1999; Scott & Graham, 2015; Wang, Greathouse, & Falcinella, 1997). This study adds to current research by focusing on teacher perspectives instead of student outcomes, and provides insight into instructional planning strategies for service-learning. Based on this goal, two research questions were developed.

- 1. How does elementary teachers' instructional planning influence their understanding and implementation of service-learning?
- 2. How are elementary teachers' perceptions and implementation of service-learning influenced during the use of a garden-based program in the classroom?

Qualitative, interpretive research methods were chosen because I wanted to generate data rich in detail and embedded within context (Maxwell, 2013). Maxwell (2013) advises against logical strategy that is created a priori when designing a qualitative study. "The activities of collecting and analyzing data, developing and modifying theory, elaborating or refocusing the research questions, and identifying and

addressing validity are usually all going on more or less simultaneously, each influencing all of the others" (Maxwell, 2013, p.2). Any component of interpretive design may need to be constructed and reconstructed repeatedly based on new findings or when another aspect of research has changed. Using Maxwell's advice, interpretive research allowed me to gain insight into the teachers' sense making of the service learning experiences in which they were involved.

Specifically, an interpretive approach was used to frame the case study to describe and interpret teachers' experiences with instructional planning during the service-learning project. Merriam (2009) suggests that a case study should be used to explore the experiences of participants and describe and interpret experiences as they are revealed. Case studies investigate contemporary phenomenon in depth and within a real-world context, especially when boundaries between phenomenon and context may not be clear (Yin, 2014). The contemporary phenomenon that was studied was the implementation of a Katie's Krops garden at a Southeastern United States elementary school.

Katie's Krops is a nonprofit organization that awards annual grants to children to help them build a garden that will provide healthy, fresh produce to the community. This organization was started in 2008 by a third-grade student named Katie Stagliano. She has grown her organization to include over 100 gardens in 30 different states. Each year, children, ages 9-13, apply for a grant by sending an application answering several questions about their intentions to help their communities. Grant applicants are required to name an adult sponsor or supervisor that will oversee their garden efforts and serve as a mentor during the process. When a school, like Southside Elementary, applies, the students answer the questions and the teachers are named as those supervisors. Katie

reads each application to choose the recipients, and they are awarded \$500 to begin their garden. As recipients of the grant, gardeners are required to submit monthly updates and photos to Katie's Krops. Monthly updates include providing data about the kinds of vegetables grown, the weight in pounds of harvested produce, and any hardships or obstacles they faced that month.

In this case study, data emerged through interaction with the participants.

Through interviews, planning sessions and observations, the insight into teachers' knowledge and understanding of service-learning helped in understanding how they implement it in their classrooms. Gaining further insight into the perspectives of the teachers' experiences is important to understanding the challenges and successes they experienced while implementing service-learning strategies.

Research Methods and Procedure

Context

I used "purposeful selection" when choosing the case for this study. Purposeful sampling is used when researchers need to include subjects because they are believed to facilitate the development of a theory (Bogden & Biklen, 2007). "The criterion you establish for purposeful sampling directly reflect the purpose of the study and guide in the identification of information-rich cases" (Merriam, 1998). I chose a rural elementary school located in a southeastern state based on one sole criterion, that they were implementing a Katie's Krops garden as a service-learning project. Southside Elementary School was awarded a grant from Katie's Krops to plant a garden at the school (all names and places have been given pseudonyms). At this research site, students had already answered questions and were awarded the grant before I started data collection (See

Appendix A for the grant questions). The teachers provided students with two choices of service-learning projects, one supporting the local animal shelter and the other being Katie's Krops. The teachers provided information about both organizations to the students and they chose to apply for the Katie's Krops grant. Throughout the next week, students answered the grant questions and named their teachers as their supervisors. Teachers selected the best written answers to be sent in to the organization with the grant application. Although Katie's Krops is considered a youth based organization, the teachers were still responsible for overseeing the project and ensuring that students were engaged in the building, planting, maintaining, and harvesting of the garden.

This school was chosen for the study because this is the first time they are implementing this type of garden service-learning project. Maxwell (2013) states that this selection is justified "in terms of the goals of the study and existing theory and research." In interpretive research, it is important that the laboratory is the natural setting of the experience (Merriam, 1998). Because this school is new to this service-learning project, it is beneficial for the research study to document the teachers' first experiences with the instructional planning.

Description of site. Southside Elementary is a Title 1 school currently serving approximately 545 four-year-old through fifth grade students. The school population breaks down to 60% white, 35% black, and 5% other. More than half (58.5%) of the students received free or reduced lunch options. Administration at the school adopted the *Leader in Me* curriculum adapted from Franklin Covey's *7 Habits of Highly Effective People* program. Covey published his program in 1989 to help business leaders live their lives in the most effective ways. He developed seven habits that all people should

develop to be effective leaders in the world ("The 7 Habits," n.d.) The seven habits include: be proactive, begin with the end in mind, put first things first, think win-win, seek first to understand, then be understood, synergize, and sharpen the saw. These habits are adapted into student friendly language as a part of the *Leader in* Me curriculum. This curriculum is a "whole school transformation process. It teaches 21st century leadership and life skills to students and creates a culture of student empowerment based on the idea that every child can be a leader" ("A Whole School," n.d., para. 1). As a part of this new curriculum, the principal requires each grade level to participate in a service-learning project each year. The school principal stated:

"The expectation was, it did come through the *Leader in Me*, and the whole point is trying to make students leaders of self and understand real world so with every single grade level adopting a service-learning project the intent was the students would select it, the students would be involved every single step of the way. I felt strongly when we started with the leader in me that this had to be a part of who we are. We live in a "me, me society" and we want to teach students to give without getting" (January 2016).

Participants

Because the school was chosen based on the grant they received from Katie's Krops, it was necessary to reach out to teachers who would be working with their students to build and maintain the garden. After speaking with the principal, an introduction letter was sent to teachers interested in using the garden informing them of this service-learning study. Teachers that were interested in participating were instructed

to contact me, the researcher, via email. See appendix B for a copy of the letter sent to teachers.

Purposeful sampling was used again to adequately capture purpose of the study and achieve the representativeness of the participants (Maxwell, 2013). The third-grade team of four teachers were the only teachers to express interest in participation because their students applied for the grant, their team leader reached out on behalf of the team. Of those four teachers, three were chosen to adequately capture the heterogeneity in the population. The fourth teacher was a first-year teacher with whom I had a previous relationship, serving as her science methods instructor. I felt that our previous relationship and her first-year status would influence data collection. In the second year, a new teacher was added to the team, and agreed to participate in the study. This new teacher was selected purposefully because of her years of experience. The use of this purposeful sampling is necessary to ensure that I collected relevant data from teachers with a variety of instructional planning experiences. I was interested in working with a sample of three to four teachers, one with less than five years of teaching experience, at least one with between five and ten years of experience, and at least one with more than ten years. This sampling of teachers provided insight into different experiences with instructional planning techniques used while implementing a service learning project. Merriam (1998) suggests that even finding a small sample with maximum diversity can provide important shared patterns that are evident across participants. I reached out to those four teachers individually, both in person and via email, to discuss the process and schedule a preliminary interview.

Description of participants. The third-grade team at Southside Elementary School and their students applied for and were awarded a Katie's Krops grant to build and maintain their school garden. These teachers agreed to participate in the study, and they met the criteria and requirements I had deemed necessary for the study. All four third grade teachers were teaching self-contained classrooms at Southside Elementary School. Each teacher was a different age and had a different level of experience in the field, one with less than five years, one with five to ten years, one with over 20 years, and finally one with over 30 years of experience.

Alice is a white 45-year-old middle class female, native to the small rural town. She is the grade chair and has been teaching at the school the longest. She has been teaching for 23 years and has taught grades pre-k through 4. She holds a Bachelor's degree in education and is a reading recovery coach as well as certified to teach gifted and talented students.

Amanda is a 33-year-old, middle class, white female. She is originally from out of state and holds a Bachelor's degree in interior design. She was working in the corporate world prior to completing her Master's degree in education. She had been teaching for only one year prior to participating in this study.

Callie is a white, 37-year-old middle class female. She had been teaching for 8 years in Chicago, Illinois prior to coming to Southside Elementary School. She holds a Master's degree in education. Callie was hired during the second academic year of the study. Her late addition to the project influenced the amount of data collection pertaining to her case.

Lydia is a 55-year-old middle class, white female. She has been teaching for 31 years. She has taught 1st through 4th grades at two different elementary schools, and taught 7th and 8th grade science at a middle school. She has a Bachelor's degree in elementary education. Lydia agreed to participate in the study but because of time constraints, chose not to participate in the four one on one interviews. She was, however, involved in all planning sessions as well as the focus groups. I also could observe her class as they worked on the service-learning project, and she was willing to answer follow-up questions when I had them after the observations. I felt it was important to include her story in the data because she provided a different perspective that added new knowledge to the study.

During data collection, I felt it necessary to include the principal of the school in my study. Lucy is a 55-year-old, upper class, white female. She has been in education for 33 years, serving the last eight as the principal of Southside Elementary School. Prior to being principal, she's been an assistant principal, a special education teacher, and a secondary writing teacher.

Data Collection Methods

Interpretive research requires a variety of data collection methods to ensure that the participants' experiences are well documented and able to be reported without bias. This study predominantly utilized interviews to collect data, but focus groups, observations, and document review were used to ensure data triangulation (Merriam, 1998).

Interviews

The primary source of data generation was semi-structured interviews with teachers. Interviews are necessary when we cannot observe behavior, feelings, or how a person interprets a phenomenon (Merriam, 1998). An interview is used to gather descriptive data in the participant's own words so that the researcher can develop insights on how participants interpret some part of their world (Bogdan & Biklen, 2007). A preliminary interview was conducted to build rapport with teachers and to determine their prior knowledge about service learning and their individual lesson planning practices. This information was necessary to answer the second research question. These interviews were conducted prior to the garden being utilized in their classroom to contextualize how the teachers used the garden in their teaching. The preliminary interview started with open-ended questions to gain knowledge of the teacher's background and then transitioned to semi-structured protocol to gain specific information from participants using probing questions (see Appendix C for protocol). During interviews, I used a voice recording device to later transcribe the participant's answers for analysis. I also took field notes during interviews to further inform the coding and data analysis. These field notes included written accounts of what I heard, saw, experienced, and thought during the data collection and analysis processes (Bogden & Biklen, 2007). For example, during an interview with Amanda at the beginning of data collection, I wrote in my notebook that she had some great ideas about connecting academic standards and made a note to revisit them at our next meeting to see if she had implemented those ideas.

Over the course of the study, I conducted four, forty-minute interviews with each participant. The initial interview occurred in September 2015. Interviews were then conducted in May 2016, December 2016/January 2017, and May 2017 (See Table 3.1). The interviews followed a semi-structured protocol so that probing questions could be asked to gather relevant data on teachers' developing understanding of service-learning and instructional planning (See Appendix D). These interviews allowed for additional questions based on observations as well. Interviews were scheduled with teachers and occurred in their classrooms or in the conference room at the school. Interviews were no more than an hour long and either occurred during the teacher's planning time or after the school day ended. During the interviews, I sat across from or next to the participant. I started each interview by asking the participant whether I had her permission to record our time together so that I could analyze the data later. I then explained that her answers would be confidential and I would be the only one with access to the data as the recording was on a password protected device. I also assured the participants that I would use pseudonyms to protect their privacy.

During the study, I felt it necessary to include the principal of the school in the data collection process. I scheduled two interviews, one in January 2016 and one in May 2017, to learn her expectations and observations of the service-learning projects and the teachers' planning of those projects at the school. This allowed me to paint a better picture of the feedback and support the teachers were receiving from administration during their service learning projects.

Interviews provide "... access to the observations of others. Through interviewing we can learn about places we have not been" (Weiss, 1994). Through these interviews I

learned more about these teachers' experiences with service-learning as they were experiencing it. Because of my extended absence from the elementary classroom, it was difficult for me to put myself in their shoes as a teacher new to planning for a service-learning project. Through their interviews, I gained access to the insight necessary to answer my research questions.

Table 3.1. Data collection timeline.

Month	Data Collected
September 2015	Initial Interviews, 1 st Planning Session
December 2015	Planning Session, Focus
January 2016	Group Principal Interview
February 2016	Focus Group
March 2016	Planning Session, Class Observation
May 2016	Interviews
September 2016	Initial Interview with Callie
November 2016	Planning Session
December 2016	Planning Session, Interviews
March 2017	Planning Session, Class Observation
April 2017	Two Planning Sessions,
May 2017	Focus Group, Interviews Two Planning Sessions, Interviews, Principal
June 2017	Interviews, Frincipal Interview Interviews, Follow-up Interviews

Participant observation

To further collect data, I spent time throughout the school year observing teachers in their planning meetings. My role as the researcher was participant observer. As Merriam (1998) suggests, this continuum changed over time and it was a challenge to understand the process as an insider while creating an unbiased picture for outsiders. When I first began data collection, I intended to remain as much of a spectator as I could. However, as I continued to participate in planning sessions, I assumed responsibilities that advanced the group (Merriam, 1998). When teachers needed help with questions, I offered my support. During planning sessions, I offered suggestions on how to implement academic standards and how to involve students in the project. For example, during a planning session, I suggested that students could write persuasive letters to their principal asking for permission to construct a data board to install out by the garden. Field notes were kept noting my roles and my statements during planning and how teachers interpreted my guidance. When I suggested the persuasive letter, my field notes reminded me that Lydia's response was, "We don't have time for the kids to do that, I'm just going to do it myself."

Each planning meeting was held on a Tuesday or Wednesday after school hours in the team leader's classroom. Each session lasted an hour to an hour and a half long, and the teachers and I discussed what needed to happen to get the garden built and planted and how the students could be involved in the activities. Academic standards were not discussed as often as the garden maintenance tasks were.

During the study, I was able to observe two classes as they worked in the garden (See Table 3.1 for timeline). During these observations, I noted how the students were

participating in the garden project, and how the teacher was connecting their participation with academic standards. Eyler and Giles (1999) note that a project needs to connect the community service to academic curriculum for it to be identified as service-learning. Katie's Krops' mission suggests that children reach out to community members in need to provide them with fresh vegetables, making it an ideal service-learning experience. I looked for evidence that the teacher had an objective in mind when planning the lessons.

By observing teachers during planning sessions and classroom instruction, I could gain further insight into how teachers were or were not implementing the requirements of effective service-learning. Based on these observations and field notes I could follow up with questions in interviews.

Focus Groups

Because I spent planning sessions with the teachers, and all my participants were in the room at the same time, I used these opportunities to do focus group interviews. Focus groups are structured group interviews that encourage the participants to discuss issues (Bogdan & Biklen, 2007). Focus groups can be used to deliberately surface the views of each person in the group (Yin, 2014). I felt that participants were reserved in their one on one interviews, and a focus group interview may help to dig deeper into their personal experiences. During the focus groups, I felt like the teachers all felt they had similar experiences and it was easier for them to discuss their perceptions of being unsuccessful when others were agreeing with them. While I asked questions about their project, the teachers could reflect together and suggest ways to better implement it in the future.

Focus groups were scheduled during planning times either during the school day or on Tuesday afternoons. I conducted three focus group discussions. Discussions did not last more than an hour, so teachers felt I was respecting their work time. Teachers were asked to not bring any other tasks or topics for that time so that service-learning could be the primary discussion topic. I used a recording device and my field notes to record data for analysis later.

Data Analysis

Grounded theory is an inductive method of using data to generate theory through a cyclical process of data collection and data analysis (Pidgeon, 1996). Within grounded theory, the researcher collects data, analyzes those data for conceptual categories, links the categories into a developing theory, and then collects more data to see how the theory fits. When data collection and data analysis occur simultaneously, the study is more relevant and possibly more profound (Glesne, 2011).

Constant comparative methods were used to analyze data. Pidgeon and Henwood (1996) suggest several steps in analyzing data. The first step is to analyze initial transcripts or field notes looking for similar themes that occur within the data. These themes are indexed into a coding system, and categories that are determined relevant by the researcher are noted. It is important that while coding an incident for a category, the researcher compares it with the previous incidents in the same and different groups coded in the same category (Glaser & Strauss, 1967). Coded categories will begin to repeat themselves, and it is important to explore the similarities and differences (Pidgeon and Henwood, 1996). This constant comparison starts to generate theoretical properties of

each category, and the researcher can begin to integrate the categories. When different categories and their properties are integrated, theory begins to develop.

In this study, data analysis began after the first preliminary interview. I looked for patterns within teachers' explanations of their understanding of service-learning and instructional planning. These patterns helped me construct categories or themes that may potentially be meaningful in later interviews. Further themes were analyzed and compared within teacher lesson plans. The recurring patterns helped to show teachers' growing understanding of service learning and provide insight into their instructional planning strategies. These themes were noted in a field notebook and subsequent interviews were compared as new codes or categories arose. Merriam (1998) has outlined important guidelines for determining categories. Categories should reflect the purpose of the research and provide answers to the research questions, they should be "mutually exclusive, exhaustive, and sensitizing." These guidelines helped me develop meaningful codes that the reader will understand. Throughout the study, data were kept in a field notebook; concept maps and models were developed to help make connections between categories and themes to construct theory that is grounded in the data.

Ethical Issues

During a qualitative study, the researcher must think about the ethical issues involved. Bogden & Biklen (2007) suggest two guidelines when researching with human subjects: informed consent and protection of participants from harm. They suggest that subjects should volunteer to participate after fully understanding the study and the obligations it requires. The risks of participating should not be greater than the positive gains they might achieve. By sending an introduction letter to teachers explaining the

entire process of the study, I could ensure they had all the information before they agreed to participate. To ensure participants privacy and confidentiality, I ensured that pseudonyms were used in place of names and places. Identifying information of participants and school site was kept in a locked drawer or on a password protected hard drive.

Trustworthiness

Trustworthiness is a central part of qualitative research, it implies that the results of the study are accurate and congruent with reality (Merriam, 1998; Shenton, 2004). In quantitative research, trustworthiness is established by ensuring internal and external validity, reliability, and objectivity. Positivists question the ability for a naturalistic study to be trustworthy because these terms cannot be addressed in the same way (Shenton, 2004). Guba (1981) suggests using different terminology when discussing trustworthiness in qualitative research, these terms are: credibility, transferability, dependability, and confirmability.

To increase the credibility of this study, specific procedures were implemented as suggested by Merriam (1998). I did my best to use triangulation which involves using multiple data collection methods. Guba (1981) suggests that using multiple collection methods simultaneously helps to compensate for their downfalls. I used interviews, observations, and focus group discussions to collect data. I also used member checking strategies to ensure that I was representing the teachers and their ideas accurately. Member checking is "systematically soliciting feedback about your data and conclusions from the people you are studying" (Maxwell, 2013, p. 126). During interviews, I repeated what participants said, and asked them whether their words matched their intent.

While analyzing data, I also reached out to participants when theories began to emerge and I verified that they could offer explanation for patterns I observed. For example, Callie and Amanda both struggled with having time to meet all expectations and always discussed having to go home to children. As I was analyzing data, I reached out to verify the patterns to see if they made the same assumptions I was about teaching and having small children at home. Finally, I aimed to provide rich, thick descriptions so that the reader will understand the research context and continuously reflected on my own subjectivity and monitored my own biases. Providing rich, thick descriptions also helps to ensure transferability (Shenton, 2004). This allows readers to have a full understanding of the topic being studied and then compare what they have read to what they have seen in other situations.

When discussing reliability in quantitative research, the researcher aims to show that, if the work was repeated, similar results would be found. In qualitative research, this is problematic because the data collected are tied to the situation and the setting of the study (Shenton, 2004). To address dependability, I made sure that I described in full detail the design and implementation and the data collection and analysis process. For example, as I continued to collect data, I found it necessary to add the perspective of the administration. I stated in my data collection and analysis that I scheduled two interviews with Lucy. I also added a fourth participant in the second year, and clearly stated how this impacted my data collection and analysis process.

Finally, confirmability refers to the term objectivity used in positivist research (Guba, 1981). Remaining completely unbiased is difficult in qualitative research because it is impossible to eliminate the researcher's theories, beliefs, and perceptual lens

(Maxwell, 2013). It is important for the researcher to understand how his or her values and expectations may have influenced the outcomes of the study. Not only was I the researcher in the school, I was also a colleague. While I was observing and collecting data, I was also teaching in a classroom down the hall, and implementing a servicelearning project with my students. As a teacher in the building, I was having similar experiences to the participants, struggling with the same expectations and policies. When they spoke in interviews and focus groups, I could relate some to what they discussed. When they mentioned the administration's expectations, I noted in my field notes that I was feeling a bit overwhelmed with all the tasks required. However, I had to reflect on this, and ensure that I was not influencing the interviews by sharing my own frustrations. I also had to make sure that my own opinions were not biasing my data analysis. This could have influenced the outcomes of the research, however, I maintained professional boundaries and focused my efforts on data collection. To carefully generate sufficient data, I remained conscious of my position at all times and reflected on each interaction with participants to be sure that my position was not influential to the data. For example, I was familiar with the EDI format prior to collecting data from teachers. Instead of adding my personal views of the strategy, I made sure to only include statements that teachers shared. At the beginning of each interview, I reminded my participants that I did not want them to assume that I knew exactly what they were talking about, and I wanted them to respond to my questions as if I was an outsider rather than a part of the school community. During interviews or focus groups I used probes like, "Can you explain that further?" or "Can you give me an example?" I also followed up with participants while analyzing data to have them confirm they agreed with my conclusions. These processes

ensured that I used only my participants' words in my data analysis, and did not add my own biases or experiences into the discussions.

Positionality is defined as the space in which objectivism and subjectivism meet (Bourke, 2014). A researcher must remain aware of their relationship, as the researcher, with the participants. To remain objective, one must realize and understand their subjectivity (Bourke, 2014). My positionality could have played a role in my research, but I did my best to remain conscious of how my position could influence the research. My role as a participant observer could have biased the research because I was giving teachers suggestions for planning. My suggestions could have influenced outcomes because I may have been perceived as an "expert" in service learning. When I gave suggestions, teachers may have felt they should implement them. Teachers may have felt pressure from me, causing distance between me and the participants. During a few planning sessions, I offered suggestions to involve more students in the project. For example, I thought students could write letters or write scripts to use when calling community members, I also suggested that students create shopping lists and budgets to use the grant money efficiently. These activities were never implemented in classrooms which led me to question my position in planning sessions. By the last planning session, I had decided to just observe and offer suggestions when I was asked. To compensate for these things, I made sure to reflect on my data and revisit interview questions for clarification.

CHAPTER FOUR

RESEARCH FINDINGS

As indicated in previous chapters, the purpose of this study was to explore, understand, and interpret how elementary school teachers use service learning, and to examine underlying factors that shape and influence how teachers plan for and implement service learning projects. To understand the phenomenon in context, I focused on two research questions: 1. How does elementary teachers' instructional planning influence their understanding and implementation of service learning? 2. How are teachers' perceptions and implementation of service learning influenced during the use of a garden based program in the classroom?

Data collection spanned a time period of September 2015 through June 2017. For a complete timeline of the study, see Appendix E. For two academic years, I spent time observing teachers in ten of their planning meetings when they intended to discuss the service-learning project. I also conducted interviews and focus group discussions throughout the course of the project. There were mitigating circumstances that interfered with the collection of data. Overall, the teachers felt they were not successful in meeting their goals of the service-learning project. Amanda stated, "My goal was to do a better job than last year and to be more involved. Have I reached that, absolutely not?" (May 2016). Alice told me the project in her classroom is, "very superficial, just touching the surface of what it could be" (May 2017). Callie told me, "I didn't understand what it

[service-learning] was, so the kids didn't get it, neither did I" (May 2017). Data presented provides the teacher perspectives as to why they were unsuccessful.

In this chapter, I will present data in a timeline format beginning with the initial interviews, then the 2015-2016 school year, and finally the 2016-2017 school year. For each academic year, I will provide an overview of the experiences based on my field notes and then will provide specific data for each of the four teachers studied.

Initial Interviews

I began my data collection with initial interviews of the participants. Most importantly, this allowed me to develop a relationship with each participant to gain trust. It was also important to learn teachers' instructional planning practices to understand how they plan for regular instruction, and in comparison, to the planning that happens during the service learning project. This information helped me begin to answer the first research question: How does elementary teachers' instructional planning influence their understanding and implementation of service learning?

Alice

In my initial interview with Alice, she identified the school district's pacing guide as a major influence of how she plans. She said, "I follow the district pacing guide. That helps me know what I need to teach at what time during the school year" (September 2015). I prompted Alice to tell me about her lesson plans, and she told me that is it school district requirement that lessons be written in an Explicit Direct Instruction (EDI) format. After review of my field notes I asked for clarification of this format, Alice described her lesson plans as:

"The EDI we are required to teach in the classroom is set up with several parts to a lesson. We begin by activating prior knowledge of students by posing a question about the upcoming lesson or asking them to remember something the students can use to make a connection to the upcoming learning. The mini lesson is when teachers directly explain or model the concept/standard being taught, so there is no guessing on the part of the students as to what they are supposed to be learning. We then have guided practice on the concept with the teacher and students working together to develop the understanding of what is being taught. Then students have the chance to independently practice, with the teacher monitoring their progress and intervening when necessary to reteach or correct misconceptions. The lesson is then closed with another question for the students to restate or reflect on their learning" (June 2017).

Finally, I asked Alice about weekly and daily planning for instruction. She told me that she plans only reading instruction for the entire third grade team, while each other member of the team plans a different subject. When I observed planning sessions, each session began with each teacher sharing the standard they would be planning for the next week. I noted in my notes that this sharing portion took about ten minutes per meeting. Alice would share the reading standard and story for the next week, then the other team members would quickly share their subject plans. As the team leader, Alice would then write those standards and plans in a template to be provided to administration after the meeting was over. (See Appendix F for meeting agenda template). By Thursday of each week, team members were responsible for providing EDI lesson plans, an accompanying SMART Board presentation, and copies of assignments needed for the

next week. When asked why this was the practice for planning, Alice indicated that "[this procedure] helped distribute responsibilities among the team so that teachers did not feel overwhelmed with the amount of work that goes into planning for all the subjects taught each day" (September 2015).

When discussing daily planning, Alice said, "Every afternoon, I look over my weekly lesson plans and create an agenda page for the next day with SMART Board [presentations] attached" (September 2015). She indicated that she planned for the use of a SMART Board presentation for most of the lessons she taught.

At the conclusion of the initial interview, Alice told me she had limited experiences with service-learning. As indicated in the quote below, she described her experiences to be "very superficial." She said,

"[In the past] we have chosen an organization; they have come in and talked with the students, and we generally have raised money or collected donations for the organization...There wasn't much depth to the projects and students don't really get to see where their donations go and they don't make a connection to the organization" (September 2015).

Alice also went on to describe her expectations and goals for the upcoming Katie's Krops project. She wanted to see the students really involved in giving back to the community and wanted to be a motivated teacher that engages her students outside of the classroom, using real world applications. She told me, "It's centered around the standards and the things they can learn around doing a service for others, more global. Like, we might be using the garden, but what can they learn other than just how to garden, they can do the math and the community part of giving back" (September 2015).

Along with her goals, Alice also knew that there would be some obstacles. The biggest one would be time. She was afraid that if she spent too much time on the project she would be missing out on classroom instruction time of the standards. She also said, "An obstacle would be not knowing much about gardening or keeping plants alive. I will also need to make a shift in where teaching and learning should take place. I've had twenty years of "classroom" teaching, and being comfortable with moving the learning outside will be a challenge."

Amanda

My initial interview with Amanda gave me insight into her planning strategies. She also used the district pacing guide to see what needed to be taught next. "I also research through Pinterest, Teacher Pay Teacher, and Teacher Notebook for various activities." Amanda plans word study and writing for the third-grade team, and she says she likes to have several ideas before she makes her final decision on what to use in the classroom. Each week she is responsible for creating a SMART Board presentation, lesson plans, and a weekly assessment for word study and writing. When planning she has to think about her students, "I have a very busy and active classroom, so it is important to plan a lot of movement. And I have a range of academic levels in my room so I have to make sure that I give enough explicit instruction" (September 2015). She further explained this explicit instruction and she explained, "It's just instruction where I am giving direct teaching and instruction. Walking the students through the process and really outlining each part of what I want them to know."

Amanda shared with me her previous experiences with service-learning as well. She told me,

"Last year was my first year with service-learning and I felt that I had no knowledge of it [the project] and was just included in the outcome without actually being a part of it. Our fifth graders took the recycling bins out of each room in the school and dumped it into a recycling dumpster. All I had dedicated in this was that I had to pick four kids out of my class to participate. I also made sure my kiddos were recycling the correct things and getting them into the recycling bin. It was minimal effort on my part. I did not feel that it was as successful as it could have been...the kids just didn't have any real connection to it. They didn't see the full circle or where the paper went or what happened to it" (September 2015).

At the beginning of this project, Amanda was very motivated to make this experience better than her previous year's project. She told me, "I want to push myself to be more involved than I was last year with my first service-learning project... [I want it to be] a weekly thing that my students are contributing to and not something that falls on the back burner." She was very excited, and seemed willing to really get involved in every step of the project. Amanda finished by saying, "I don't really see any obstacles. The students are motivated and want to make this successful. The teachers are 100 percent behind the project as well." This gave me confidence that Amanda and the other teachers would really work to make the project successful.

Lydia

Lydia did not participate in one on one interviews so I did not have an initial interview with her. She did not feel that she could give me the extra time necessary for these interviews, due to personal reasons. However, through observations of planning

meetings I was able to understand that she was responsible for planning Science and Social Studies for the third-grade team. Every few weeks, Science and Social Studies would alternate so that she was only planning one unit at a time. It was evident that Lydia primarily used the pacing guide and previous year's units to plan. During planning meetings, she would say, "I put the unit folder from last year on Dropbox," or "The next unit scheduled is the Civil War."

During a focus group, I was able to ask Lydia her definition of service-learning, and she explained that it was a way for students to learn how they can give back to the community. She also said, "I don't do it as a way to bring in any type of academic plans or anything."

Callie

I first met Callie in the summer of 2016. She was a new addition to the third-grade team at Southside Elementary School. She moved to the area from Chicago where she was also a third-grade teacher. Because I was on a leave of absence at the beginning of the 2016-2017 school year, our initial interview was conducted after the school year began. Like the other initial interviews, we first discussed her planning strategies for daily instruction. She mentioned the pacing guide that recommends when to teach certain standards and she used that to guide her planning. She also said, "The district also provides us with the ATLAS website which I use for resources." ATLAS is a resource where SMARTboard presentations, lesson plans, and assessments are uploaded for teachers throughout the district to use when teaching academic standards. Callie was responsible for the math plans each week for the third-grade team. She would share the next week's standards at the beginning of the planning meetings and would provide

teachers with the plans, SMART Board presentation, and copies by Thursday of each week. When she planned, she would use the pacing guide to find out what standards came next, and then used the district resources as well as her own previous teaching experience to pull activities together.

When service-learning was brought up in our conversation, it was clear that Callie did not have much knowledge of service-learning or of Katie's Krops, even after the school year began. This showed that the teachers were not yet planning for the garden.

In our initial conversation, Callie told me she could not answer a few of the questions because she did not know anything about service-learning or Katie's Krops. She had never worked in a school that implemented service-learning, and she had never used a garden to teach. I asked her what she thought service-learning should look like in her classroom, her response was, "I do not know enough about it to answer the question." I tried to ask a different question instead, I asked, "How do you think your students will be impacted by this project?" Callie told me, "I hope they learn to understand what it means to volunteer. To give something of yourself with no expectation of an award. I would also want them to work well together and synergize" (September 2016). To conclude our initial interview she said, "I don't know what Katie's Krops are, if we are supposed to have lessons planned around it. I guess we should talk about it at our [planning] meeting." This conversation led me to believe that Callie did not understand service-learning as a teaching tool to implement academic standards, she thought of it as volunteer opportunities for her students to help the community. She was also unaware of Katie's Krops and the grant that was received by the school the previous year.

2015-2016 School Year

Our first planning session occurred on September 16, 2015. It was determined that the wood to build new raised beds would be donated by a business partner, and that business partner would come to the school to help the students build. Unfortunately, the week when that business partner was scheduled to come and meet with teachers, there was a storm causing major flooding in the area. This caused school to be canceled for an entire week, and put teachers a week behind in their pacing guides provided by the district. Garden building was put on hold until teachers felt less overwhelmed with regular instruction, and they could meet again with the business partner. I met with teachers on December 9, 2015 to discuss the building of the garden, and it was determined that the deadline for the building of new raised beds would be January 30, 2016. Over winter break, construction on a new roof on the school began. To allow construction vehicles into the school area, part of the garden was disassembled. This, again put garden building on hold, thus preventing data collection during that time. The roof was still not completed when I met with teachers again on February 9, 2016. Finally, in March, the roof was complete, and the raised beds were built by Alice's class. At the end of March 2016, teachers met to discuss how they were going plant in the garden. Alice and Lydia were to meet on a Saturday morning to purchase soil and seedlings from Home Depot. Since Alice's class was involved in building, tomato, eggplant, squash, and pepper crops were planted by Lydia and Amanda's classes. Lydia's class did most of the watering and weeding for the rest of the school year.



Figure 4.1. Image of garden in March 2016

Alice

When the project started, Alice's class oversaw the building of raised beds in the garden because they had a business partner in the community willing to donate their time and the materials to help build. Alice contacted the business partner in September of the first year of the project; a plan was discussed for them to join the class to build the boxes in October. As previously stated, the building was put on hold. In December, I asked how the project was going and Alice said, "My class is still on hold because I still have the business partner that is interested, but I don't know what we want...I'm not sure where to go from here, I'm not sure exactly what we need." The boxes did not get built until March of that school year. During the build, I could observe only part of the process that occurred in the garden. Alice's plans were for the process to take an entire week to complete. She first taught the area and perimeter standards using the EDI format, she used the SMART Board to show examples of perimeter and area and taught the students how to use the formulas to find the values of regular rectangles and squares. She used

examples to allow the students to practice with her guidance. Then during the independent practice phase of the lesson, students worked in groups to design the garden on grid paper; they used their area and perimeter standards to determine how many boxes would fit in the total area of the garden space. Each group wrote a set of directions on how to design the garden and assemble the boxes. The group with the best set of directions was to become the lead group and oversee the other groups in the garden to build the boxes the way they imagined. However, this initial plan was not enacted due to her classroom management struggles once the class was outside in the garden.

When the business partner arrived with the materials on March 16, 2016, Alice allowed the entire class of 24 students to work in the garden together building the boxes. I noticed students that were not engaged in the process, sitting in the grass waiting for instructions. There were students playing tag because they did not have a job to do yet. There were two rubber mallets being used to pound the pegs of the panels into the ground, which meant that only two students could be using them at a time. Two students would hold the panels together as one would use the rubber mallet. This process engaged about six of the 24 students at a time. Because only a small number of students could be engaged at a time, and the teacher and business partner needed to supervise those students, it appeared difficult to manage the process, and the class was brought back inside after twenty minutes. Alice had a student teacher working in her classroom at the time, so the class stayed inside to work on more math standards while Alice took small groups outside to build one box at a time. By the end of the process, there were only three students outside working with the business partner because they were well-behaved and highly interested in the building process. When asked about planning this process,

Alice told me that it was something she could spend time planning because she had a student teacher in the classroom and she could "fit it in without it being something extra." She could spend the time trying to get in contact with the business partner, she could spend the time developing the in-depth plan to teach area and perimeter using the garden boxes, and she could take small groups of students outside. Having a student teacher and a business partner to help manage the process made the garden build possible.

Building the raised beds was the only time that Alice worked outside in the garden with her class that first year. She indicated,

"I'm not sure of what really would work well in the garden to get the plants to grow and what would need to be done. It is hard to set groups up ahead of time with expectations and tasks assigned to keep everyone engaged. I think if I personally knew more and was more interested in the whole gardening thing, then I would make more of an effort to use it for learning" (April 2016).

Alice also stated in one of our conversations, "I have gone out there with the entire class just to have lots of complaining and arguing over tools and tasks. It was not enjoyable for most or myself" (May 2016).

When Alice and I discussed over-all planning for the project she told me that the only thing she really planned for was using perimeter and area standards for allowing students to design the garden boxes. She said, "I had to plan for it because other people were involved" (April 2016). To conclude the first year of data collection, Alice talked a lot about how she learned about gardening with the students and that she realized that many standards could be taught and demonstrated with the use of this project. She had two thoughts for the next school year, first she said, "Next year, I will focus more on

researching which vegetables grow better in the fall and in the spring. The garden will be maintained on a regular basis by students with the goal of harvesting vegetables to donate to Katie's Krops." Secondly, she added, "I am excited about this next group of students that will be able to work with the garden the entire year and learn the importance of doing something to help benefit others" (May 2016).

Amanda

Although Amanda had established her goals to be more involved, and she was highly motivated at the beginning, that quickly dissipated as the school year progressed. I asked Amanda what standards were covered in the garden, and she said that students created and analyzed graphs, and that area and perimeter were covered when creating the space for the garden. During this interview, it was apparent that she shared with me what the other third grade classes were doing, but not what she did in her classroom. She told me she only used her transition time returning to the classroom after recess to stop at the garden and talk about measuring or graphing. She did not spend much time outside at these times, nor did she graph the results of her measuring. She used it as practice for her students using a ruler. In a planning meeting, Amanda stated, "I could cut recess short and take them to the garden, spend a few minutes out there. I also feel like this is okay to take away math time, I mean that's what we are doing. Its hands-on math, I think its ok, they [administration] should not have a problem with this" (September 2015). It was apparent that Amanda was apprehensive about being off the schedule assigned to her by the administration. It is an expectation that teachers follow the schedule put in place at the beginning of the school year. Amanda believed that if it was her scheduled math

time, she should be in the classroom teaching the content provided by the pacing guide and other district materials.

During the first year of the project, since the garden was not built until March, the students only had two months left of school. In this time, they were able to plant and see some growth, but only a limited number of crops were ready to harvest before the students left for the summer. Amanda's class planted pepper and squash seedlings at the end of March. Amanda felt at the end of the first year, even though she was not overly involved, the garden was successful because it was built and students could plant and watch the seedlings grow. She was excited to continue using the garden the next year.

Lydia

During our first planning meeting in September 2015, Lydia shared that she had one small garden box where she already planted broccoli on school grounds. She had the seedlings and planted them so her students could try the vegetables. It was discussed in that meeting that teachers could take their classes out there to observe the broccoli. During that meeting, Lydia also said that she and her students could measure the growth of the broccoli. I suggested that maybe those data could be used to do some graphing. Teachers agreed with this idea, and then it led to the discussion of building a bulletin board out where the new garden would be built so teachers could display their data. I also suggested that the students could do some persuasive writing to the principal to get permission to build that board. Lydia responded to my suggestion by saying that there was not the time for that and that she was just going to take care of it herself. That board out by the garden was never built, but a graph was displayed in the building and Lydia kept track of the data points on it. This interaction helped me understand Lydia's

understanding of service-learning as well. She did not feel as though she could give up time from the standard curriculum to integrate student projects.

Lydia did create a graph for the bulletin board located in the third-grade hallway. During recess visits, she measured the growth of the broccoli plants and then she graphed the results on the bulletin board. The broccoli was harvested in December, and the graph was on display until the end of the school year. At the end of March, Lydia's class planted tomato, eggplant, and squash seedlings in the new garden boxes. Her class did most of the watering and weeding that first spring.

2016-2017 School Year

After the first school year ended, the garden became overgrown which delayed the start of the project for the next school year. It was agreed that a parent who worked with a local church would bring her church group of kids to the school to maintain the garden over the summer. The garden was not maintained by the church group and because teachers were not there over the summer, it became overgrown.

The overgrown dead crops were cleaned out in September of the next school year, but nothing was planted for the fall. The second year, 2016, Hurricane Matthew also caused hindrances in the garden. School was canceled for a week, and the seedlings left outside were destroyed. On November 11, 2016, as a part of the Day of Caring, volunteers from the community came to amend the garden because the grass between the beds became overgrown during the summer, and vegetables could not be planted in its condition. Each year local companies participate in a Day of Caring event during which employees volunteer their time to schools and charities. During this event, volunteers rebuilt the garden boxes and added mulch to the area surrounding the boxes and the

garden area. After initial mulch was spread, students in all four classes took turns going out to the garden to add more mulch and fill boxes with soil. Lettuce, scallions, and kale were planted by Lydia's class for the winter and were donated to Katie's Krops. As the second school year ended, tomatoes, peppers, watermelon, and eggplant were planted by all classes, and a better plan was created for summer care. Lydia was going to maintain the garden over the summer.



Figure 4.2. Image of garden rebuilt in November 2017. This shows students working to fill in mulch and add soil to new boxes.

Alice

The second year was more of a struggle for Alice. There is no evidence to suggest that Alice used the garden again for academic standard based lessons. Instead of taking the entire class out to the garden for any length of time, Alice allowed well behaved students to join another teacher to work in the garden. She told me, "I have trained small groups of students on my expectations for weeding, watering, planting,

when the rest of the class was in special area. I would then let those students complete the tasks necessary" (June 2017). Alice admitted to not starting the school year thinking about the project; it was not something she discussed with her new group of students from day one. This delay in implementation may have been caused by my personal leave of absence from the school building. I was not able to check in regularly with teachers about their project, which may have caused them to neglect the project more. I asked Alice to tell me about her planning for this second year, in terms of the project. She told me,

"I have not made specific plans, it just kind of happens when we notice something as we walk past, or when it was our turn to tend to the garden...in my room we simply do what we are told that needs to be done. Other classes have used it for research of what to plant at what times and what to make with vegetables" (April, 2017).

She also stated that,

"So far, this year, it has been more of a chore type of feel when it is our turn to weed and water the garden. I do not think I have really shared and taught the importance of service to the community, and I know I have not used the garden and other activities associated with it to really teach the students lessons other than of responsibility" (April 2017).

Our last few conversations really helped me understand Alice's struggles with the project. The first year she had a very clear expectation to build four raised beds in the garden space. She was able to accomplish that with the help of a business partner and her student teacher. There were very specific standards that could be used to help the

students be involved. However, the second year, the garden was already built and she did not know how to get her students involved. She told me that planning for service-learning was different because of the amount of management planning to keep the kids involved and engaged when outside. She believed activities done in the classroom were easier to control rather than being outside in the garden. She always mentioned that she did not possess the knowledge of gardening and she relied on her fellow teachers for instruction. She admitted that this project was never at the forefront of her mind, and she wanted to work on that. She wanted the garden to be an extension of her classroom, and she envisioned it being a more encompassing type thing, more than just teaching kids how to garden. She believed that she was not very good at it because she could not get herself to think about it in that way. She shared with me, "I seem to piece meal it when it comes up, yea we can do this and we can do that, instead of it being like a unit based thing. I want it to be an extension of my classroom so anytime there is a standard I can say we can go out to the garden and do this" (April 2017).

As a team, we often discussed how they could improve on their planning for future use of the garden. Alice was always willing to reflect on her own choices and was very open about her lack of success. Her reflection of her lack of knowledge allowed her to make some suggestions for future planning. Alice added, "I think as a grade level we never really thought of the whole picture. And everything involved with it." She meant that there was no long-range plan, and teachers did not think about overall goals for the project. They each had individual goals for themselves, but they did not discuss those goals together. Alice suggested, "We should start in the summer time, and if it were one person's responsibility for the first quarter to set up plans, we might have better results."

Alice talked about her lack of content knowledge more than other obstacles.

Alice told me, "I have tried looking into it on the internet, but I am still not sure what I'm reading half the time. I think if I personally knew more and was more interested in the whole gardening thing, then I would make more of an effort to use it for learning" (May 2017). The other obstacle she mentioned was the expectations from administration. She knew that she had to cover standards, and the principal wanted different parts of the *Leader in Me* program to be the focus. Subsequently, she felt that the service-learning project was not important for administration because they did not follow up on their efforts. She told me,

"As we go through each year in *Leader in Me*, different things take focus. The focus of year is, I guess, what admin wants to look at, and we were weak in goal setting last year, so this year they have been pushing goal setting. So, if next year, it's the service-learning then that would be our expectation, and then that would be something that would drive us to do it" (April 2017).

Once the project was underway, Alice struggled, and she believed it was because she was not interested in gardening, nor did she know how to garden. In one of her interviews she stated,

"It's overwhelming because it's one of those things that, I don't know, I'm not passionate about. I want the kids to learn it, but I don't personally care, which is hard for me, because I was going to look what should be planted in the winter, but I got bored with it and I couldn't understand it, and the charts and tables didn't make sense. It's just not something I liked" (April 2017).

Alice stated several times over the course of the project that she wished she knew more about gardening and wished that she could learn more on her own about how to garden so that she felt more confident about teaching the students.

Amanda

Even at that start of the new school year in 2016, Amanda's motivation peaked and her goals reemerged. She stated that, "I feel the students did not get a chance to share [vegetables with the community] and next year, I will make sure that the most important part, helping and sharing with our community play a major role in the project" (May 2016).

She had many ideas on how to incorporate the garden into her classroom, but she never seemed to find the time to get to it. In several planning meetings she suggested several ways that the garden could be used, she thought they could use the garden during their science unit on soil, or they could discuss adaptations of plants because only some plants grow in the southeast. Although she had some ideas, she never took them into account when planning for those units. This may have been neglected because she was not responsible for planning the Science units, so when the units came up, she used the plans and SMART Boards provided to her by another teacher.

Amanda's biggest struggle was feeling pressure to meet other expectations that were set for her as a teacher. She told me,

"I have absolutely no time in the day to do it. And I am trying to keep my kids, and I am trying to hit every standard so I don't have the time scheduled, with my class this year, I don't. If I am not granted the time, it's not gonna happen. We have gone out there one time, and it's frustrating cause I'd love to do it but there

is so much on our plate as teachers that the time that I want to put out there, something else comes up on the plate, and I can't get to it" (April 2017).

Amanda felt that administration at the school did not focus on the service-learning projects and focused more on other things like having students set their academic goals and putting together leadership/data notebooks. Amanda told me, "We are trying to get our kids to do academic goals, we're trying to do leadership, and leadership binders seem to be more of a priority than a service-learning project." Leadership binders are data notebooks that are kept by each student in the school. Students set personal and academic goals and keep track of their progress over the course of the year. Their grades are kept in these notebooks as well. Amanda explained that she felt she had to put other obligations before the service-learning project. When it was time for Amanda's class to complete tasks in the garden, she used her recess time. She told me, "I used recess time in the garden because I had limited time to get the curriculum across so I felt I needed more time in the classroom with the kids than out in the garden. But at the same time, if I knew how to use the garden in multiple ways to help include the curriculum then I would have done that" (May 2017).

In April of 2017, Amanda took her class to the garden to harvest some lettuce. She had been asked by Lydia if she wanted to harvest it with her class so they could have an opportunity to work in the garden. Lydia showed Amanda how to harvest the lettuce after school, and the next day when passing the garden, Amanda and her students brought the lettuce back to the classroom. Amanda took the lettuce home and made taco salad to share with her class and the other third grade classes. Each student who wanted to try the salad was able to enjoy some of the garden harvest.

Over the course of two years, it was difficult to for Amanda to take the initiative and participate in the service-learning project. She felt that she needed more time, and more direction from her colleagues on what exactly to do in the garden and in her classroom. Amanda told me, "There is not much happening in my classroom, when we were told to do something like weed and water, we took care of it."

Lydia

During the second year, her class was most involved in the garden, she seemed to take a leadership role for the team. She was the one to offer advice to the other teachers about maintenance tasks to be completed in the garden. During planning meetings Lydia suggested that the garden should be watered every day, unless it rained, and then the teachers decided they would each be responsible for a week of watering. Lydia also suggested that the garden should be weeded a few times a week, or that the kale was ready to be harvested. She also showed the teachers how to harvest the plants so they could take their classes outside the next day.

Lydia told me that if she had to write a lesson plan for service-learning she would not participate as much. She stated that she would not want to come up with lessons for each subject that included the garden, but she knew that it could be integrated if she had the time. She said, "Everything just seemed to blossom from getting it started and once it got started they get to taste it" (March 2017). Lydia mentioned that everything she did was "off the cuff," and whatever needed to be done she just did with her class. There was no real planning for the project. She mentioned that she always used her recess time because it was twenty minutes and the students were still being active.

Lydia used her interactions with her students to further allow them to explore the use of the garden and the crops. For example, while observing Lydia's class in March 2017, I watched as students harvested the kale to donate to Katie's Krops. Lydia allowed the students to weight the harvest which came to 24 lbs. One student claimed, "What is this, I've never had this." Lydia answered the student's question, and then told the students that they could look for a recipe and then they could make it and try it as a class. Students went back to the classroom, and during center time, students could use the classroom iPads to look for a recipe to try. The next day, Lydia then assigned a writing assignment; the students had to write a recipe card that was going to be sent with the kale when it was donated so that people receiving the kale would know how they could prepare it for their families. The students opted to make kale salad with strawberries for the class to share. However, the written portion of the activity was never completed. The recipe cards were never finished or sent with the donation.

When asked why the project was not completed, Lydia said, "the students had difficulties writing the procedures on their recipes, and I felt that the cards needed to be redone." Unfortunately, time played a role in this, and the cards were never redone and were not completed. Lydia indicated that the experience was not about the recipe and the writing for her, "it was about getting them to try something, and it was their choice so they wouldn't be afraid to try something else that's green" (April 2017). Although, the cards were not completed, this was the most successful integration of the garden with academic standards. The students had an experience, followed up with research, and began the writing process. The outcome of this activity matched Lydia's personal goals

she established for the garden project, which were for students to try new vegetables and give back to the community.

Callie

Even after our initial conversation, Callie was still not overly involved in the project. In one interview, I asked how the project was going and she stated, "I guess it is good, I'm not super involved." I also asked if students are involved in the planning of the garden and she responded, "Not in the planning, that I know of, but I think they do all of the work during the year." While talking about planning for the project, Callie told me that she did not plan anything, when something needed planted, watered, or harvested, the teachers just took turns doing it. She also admitted to not using the project at all to meet state standards. She did follow with, "But I am sure it could be interwoven into the curriculum."

Callie had very limited answers to the questions, until we talked about the subject of time. She was persistent that time was the most limiting factor in the implementation of a service-learning project. Callie stated, "I stay after school each day until 4:00 to be sure my math planning obligations are completed or to attend meetings, but then when I leave here the work stays at school, and I have to fulfill mom expectations at home."

Callie believed that there were so many other things that administration expected them to do that service-learning got pushed to the end, because it did not seem as important as other obligations. She stated that to be successful in service-learning she needed, "Time that we will never get." I asked her to clarify and she told me,

"I mean that our scheduled planning time is only 40 minutes a day, and after we go to the bathroom, get a drink, there's not much time left. I don't get to plan

much during our meeting time because we have tasks, notes, and other things to do for administration, and I don't think we'll ever have enough time because they just keep adding more and more extra work for us" (May 2017).

In our final conversation, I asked Callie again what service-learning looked like in her classroom. She admitted to not knowing much about the garden until months into the school year, and then struggled to get her class involved for the last half of the year. She told me.

"I knew nothing about Katie's Krops, I just assumed it was a garden that third grade did, and we harvested things for ourselves because everyone was out there picking peppers and everything. So, then I didn't know anything about Katie's Krops so I didn't have any goals or expectations. Then I kind of gathered through hear-say about what we needed to do with the garden; then I started figuring it out, but I didn't understand what it was when we first started" (April 2017).

Callie knew that she did not implement the service-learning project, and she finished her first year by stating that over the summer she would go to the Katie's Krops website to learn more and next year she will do a better job being involved.

Planning Sessions

Throughout the course of two academic years, I attended ten planning sessions with the teachers during which they discussed their service-learning project. In the first year, due to the late building of the garden, I only attended three planning sessions where the service-learning project was discussed. The second year, I attended seven planning sessions. Although planning sessions were held weekly during the school year (38 meetings), the service-learning project was only discussed at eight of those meetings. I

was unable to attend one of those meetings because of an illness. Each planning session was held on Tuesday after school in Alice's classroom. There was an agenda for each meeting, and afterward, minutes were submitted to administration (see Appendix F for agenda template). If service-learning was to be discussed during a meeting, it was added to the agenda.

At the start of each meeting, each teacher would share the standard they were planning for the upcoming week, and Alice would fill in the agenda. For example, on December 6, 2016, Alice shared that students would be reading holiday stories and focusing on academic standards involving compare and contrast, sequencing, and asking and answering questions. Then Callie shared that she would be planning for addition and subtraction using word problems review in math. Amanda shared that they will be focusing on holiday words in word study and writing explanatory pieces in writing. Finally, Linda shared that they would be finishing up animal habitats and adaptations in science. After each teacher shared what they were planning for each subject, they moved on to discussing administrative tasks or upcoming events.

During service-learning discussions, teachers would ask questions about what needed to be done in the garden or I would offer suggestions to help. In our first planning session in September 2015, I suggested that students could write persuasive letters to administration to ask for permission to build a bulletin board out by the garden. The response I received from Lydia was that there was not enough time for that and she would just ask for permission and build it herself. Unfortunately, that board was never built outside, but data was displayed on a bulletin board in the building. Also, on December 6, 2016, I suggested that students could do research to find places to take the

donations. Students could create scripts to use if they were to call the organizations to ask if they needed donations. (See Appendix G for meeting agenda). Unfortunately, this research was never conducted, and all donations were given directly to Katie's Krops, who donated the harvest to a local food pantry. More typically, the service-learning discussions involved assigning planting, weeding, watering, or harvesting duties to teachers and their classes. For example, on April 18, 2017, it was discussed that the team would meet at Home Depot on Saturday morning to buy more soil, and Amanda would harvest the lettuce and weigh it. I included examples of the meeting agendas in the appendices to show the limited time spent on planning for the project and how that planning did not necessarily focus on planning for academic content but rather only the maintenance of the garden.

Administration Role

Because the teachers consistently mentioned the expectations of the administration playing a role in their experiences, I decided to interview the principal, Lucy. I scheduled two interviews to gain her insight into the teachers' planning and implementation of service-learning. She told me that the expectation came through the *Leader in Me* program, and the whole point is trying to encourage students to be leaders and help them understand the "real world." She believed that we live in a "me, me, society," and she wanted to teach students to give, without getting anything in return. She felt that students lived in an environment where they learned everything is about them, and believed that the students needed service-learning to ground them.

She told me that the "intent was that the students would select it [a project], the students would be involved every single step of the way" (January, 2016). At our second

interview, she did state again how strongly she felt when she adopted the *Leader in Me* program that service-learning had to be a part of who they were as a school community but she also added, "I don't know as though I've done a really good job of driving home exactly why [we do service-learning], I think we did in the beginning, but I don't know if some of them [teachers] are just going through the motions." She observed teachers just doing service-learning to just check it off their list, but she knew that it was not that they did not care, but that she needed to keep reminding them and bring them back to the purpose.

I asked Lucy about the obstacles that she found her teachers were facing in terms of planning for service-learning. She believed that teachers' inability to give up control and allow for greater student involvement to be a major obstacle. The principal believed that students should be the ones making phone calls, writing the invitations and doing the research, doing the thank you follow ups and reporting data. She found that most teachers tended to make the phone calls themselves because they cannot make the time to have the students do it.

Another obstacle teachers faced was staying motivated when they could not communicate with the organization with whom they wanted to work. She stated, "if a grade level didn't get a response through one means of trying to get somebody, they'd tell me they sent three emails and nobody is responding, and then they'd give up" (May 2017). When teachers experienced these setbacks, Lucy had to encourage the teachers to try a different means of communication, like visiting the organization or calling them on a telephone. She also stated that it seemed each school year started out great but it was an obstacle for her to keep up and maintain the motivation of teachers.

I asked Lucy to tell me about the successful service-learning projects she has observed over the years. She told me that the most successful projects were the projects involving organizations who were reaching out to the schools. She stated, "When you have that kind of synergistic attitude going on both sides then that little thing starts humming along. When you don't and when an organization doesn't have somebody on the other end supporting the efforts of the school, that's when you start seeing it fall down. Not because the teachers don't have the desire to do it, they just don't know how" (May 2017).

When I asked Lucy about the planning strategies she observed teachers using, she revealed that she did not see many teachers using any planning strategies. She said, "It tells you that the adults in the building aren't used to giving back, in a process way" (May 2017). She indicated that she believed it was because teachers were planning something with which they were unfamiliar. So, it caused a struggle. She suggested that teachers need to have a long-range plan focused on service-learning and they need to plan how the service-learning is going to fit into their school day, whether it be during a subject area time or morning meeting time. She also suggested that every teacher needs to have ownership and commitment to the project so the responsibilities should be split up between members of the grade level team based on their talents and interests. It would be a good idea to have a leader, but the downfall to having one leader is that everyone else on the team then counts on that person to do everything.

Lucy also suggested that a service-learning project needs two sides, the teacher side that understands the standards and the expectation of fitting the project into those standards, but also the business side of things to understand how things work in the real

world. She shared that it is a struggle for teachers because, "we are now at a point of teaching and in education right now, which I don't always like, is that it's all very individualized, it's hard for teachers to bring it all together" (May 2017). She knew that teachers felt the need to meet standards first, and suggested that teachers need help to bring a service-learning project and academic standards together. She suggested that teachers should look at their standards and then find a few service-learning projects they could integrate with those standards and then have the students choose a project.

Finally, I asked Lucy to tell me about the professional development opportunities she provided to her teachers for service-learning. She shared that each teacher did receive formal training through the *Leader in Me* program, but that training primarily focused on the seven habits and how teachers can use those seven habits in their lives. Service-learning was not a part of that training. Lucy also shared that she did not know where to go to get professional development on service-learning. She thought it might be a good idea for teachers who were successful to share their experiences in a faculty meeting. She suggested, "Each year we had something work successfully, we should have been reporting out to each other telling each other why did it work out, what went well, what connectivity did we have that led to this being a successful commitment for our grade level this year" (May 2017). Lucy admitted to not providing enough professional development for her teachers in terms of service-learning planning and implementation.

Summary of Findings

Although teachers did have successes in the garden, they felt there was more that they could have done, but they had experiences along the way that prevented them being

successful in implementing a service-learning project. During planning sessions and focus group discussions with the teachers, they all had effective ideas on how to plan for service-learning projects and great ideas of how to incorporate academic standards into the implementation of the project. Unfortunately, there did not seem to be follow-through on these ideas, and the project was not successful and did not meet the teachers' goals. Teachers had many experiences that influenced their perceptions, and their planning strategies also influenced the implementation of the project. Teachers seemed to perceive service-learning as a burden or extra work assigned to them, making the implementation stressful and unsuccessful. Several reasons explain why teachers felt this way. Those reasons included a lack of alignment between service-learning goals and school, district, and state expectations, and a lack of content knowledge and pedagogical knowledge.

CHAPTER FIVE

DISCUSSION OF FINDINGS

Drawing from the data that were collected and analyzed, this chapter will address the research questions of this study, compare the findings to scholarly literature, and recommend plans for future research. The chapter will start with a summary of the current study, then a reflection on the findings and research questions relating back to the literature described in Chapter 2. I will provide some implications for service-learning in elementary school. Finally, the chapter will conclude with the study's limitations and recommendations for further study.

Summary of Current Study

The purpose of this study was to explore, understand, and interpret how elementary school teachers use service learning and to examine underlying factors that shape and influence how teachers plan for and implement service learning projects. To understand the phenomenon in context, I focused on two research questions: How does elementary teachers' instructional planning influence their understanding and implementation of service learning? How are teachers' perceptions and implementation of service learning influenced during the use of a garden based program in the classroom?

This study is important because current literature focuses service-learning studies on upper level education students and does not include many elementary school aged students. Many studies focus on the necessary components for a successful service-

learning. Literature focuses mostly on the student benefits of teaching using GBL and service-learning, but does not focus on teacher planning for using such pedagogical methods. This study attempts to provide teachers and administrators at the elementary level with suggestions to help support their planning for successful service-learning projects.

Interpretive qualitative methods were used to collect data through a case study at a southern elementary school with four third grade teachers implementing a servicelearning project with their students. Interviews, focus groups, and observations were used to collect data over the course of two academic years. The teachers felt unsuccessful in the implementation of their project, partly because their perceptions of service-learning became negative. During the first planning sessions and initial interviews, teachers were motivated and had positive expectations for their project. As the study progressed, those perceptions of service-learning became more negative. Several explanations were given for their negative experiences. Teachers described not having the content or pedagogical knowledge necessary to plan for a garden based service-learning project. Teachers felt that they did not have the necessary time for them to professionally plan for and implement the service-learning project because other obligations, like state standards, were more important to accomplish. The teachers had negative perceptions of service-learning because of their lack of time and lack of content and pedagogical knowledge. However, their lack of success was also influenced by their planning strategies.

Reflection of the Findings

In this study, I looked at service-learning through an interpretive lens to understand teachers' perceptions and their planning and implementation of a service-learning project. My goal was to develop theories as I interacted with the participants as they experienced service-learning and made sense of their own experiences. I wanted to recreate their stories through their perspectives in order to inform current service-learning research. Through observations, interviews, and focus groups, I found that these teachers did not successfully implement a service-learning project. According to literature, service-learning is an experiential education method that integrates academic curriculum with project-based learning while students are also working to accomplish real change in the community (Eyler & Giles, 1999; Kielsmeier, 2004). These teachers only minimally integrated academic curriculum into their project, missing one of the main requirements of service-learning. However, the findings of this study do offer some explanations to the difficulties teachers face when implementing a service-learning project.

These four teachers were faced with many situations that led them to be unsuccessful in their planning for service-learning. There were circumstances out of their control that caused hindrances in the gardening. In 2015, there was a major flood, that canceled school for a week. At the beginning of 2016 the school's roof was replaced, and the garden area was used for construction vehicles. Finally, in 2017 Hurricane Matthew canceled school for a week, putting garden plans behind schedule. I reiterate these circumstances because teachers using a garden-based program cannot control the weather. These difficulties that may have influenced the lack of success of the service-

learning project could not be controlled. These circumstances also may have influenced the answers to the research questions.

Community Service

The definition of service-learning is an experiential education method that integrates the academic curriculum with project-based learning while students are also working to accomplish real change in the community (Eyler & Giles, 1999). Essential components of effective service-learning include reflection, incorporating student voice and involving community members (Billig, Root, and Jesse, 2005; Eyler, 2002; Ponder, Vander Veldt & Lewis, 2011). Without these components, a project would be considered community service (Astin, Vogelgesang, Ikeda, and Yee, 2000). In this study, it was found that teachers' goals were consistent with the definition of community service and they were successful in meeting their goals of having students volunteer their time to grow crops and donate them to people in need.

Although the project did not meet the expectations of true service-learning, positive outcomes were found. Teachers established personal goals for their project and were able to meet those goals. Alice's goal was to build garden boxes, and she was able to involve a business partner to do so. Lydia wanted her students to learn about nutrition and try new vegetables, they tried fresh broccoli and kale salad. Amanda wanted her students to give back to the community and they were able to harvest and donate lettuce to families in need.

The teachers could also be considered successful in completing their grantee requirements that were tied to the Katie's Krops organization. During the winter growing season, the garden at Southside Elementary School provided 24 pounds of kale, scallions,

and lettuce to people in need. Their goals and outcomes reflect the mission of Katie's Krops to empower young people to fight hunger in the community.

The principal's (Lucy) purpose for requiring service-learning school wide was to teach students to be leaders and give back in today's society without asking for a reward. This purpose matched the outcome of the project. According to Egeler's (1993) study, teacher planning decisions are influenced highly by professional expectations or guidelines established by administration. Teachers at the school seemed to understand Lucy's overall purpose for service-learning. Each teacher wanted their students to volunteer their time to give back to the community, and they did. Lucy's understanding of service-learning did include connecting to academic standards as she suggested planning strategies in our conversation that included the standards. However, she admitted to not providing her teachers with the professional development that they may have needed. Because teachers did meet the administrator's goal of establishing the requirement of service-learning, this project can be considered successful. Based on current literature, however, the project was missing consistent components to be considered true service-learning.

How does elementary teachers' instructional planning influence their understanding and implementation of service-learning?

Overall, the way the planning meetings were established influenced the outcomes of the service-learning project. Actual planning was not performed during these Tuesday afternoon meetings. Ideas were brought to the meeting and discussed, but the lesson planning was done individually by each teacher for the subject for which they were responsible. McCutcheon's (1981) study found that most teachers do not start with the

objectives of the lesson, but choose an activity selected from available sources such as teacher editions, curriculum guides, or district issued materials. I found similar results in this study. Each teacher used the district provided resources or previous year's plans to create universal plans for the entire team, but the service-learning project was not included in those resources. Each teacher planned her subject in isolation to other subjects, and no teacher was responsible for planning for the service-learning project. There is little connection across subject areas, as each subject is planned in isolation and is thus taught in isolation. This influenced the implementation of the project because it was an after-thought that teachers had to try and fit in, which led to a lack of planning and thus unsuccessful implementation of the service-learning project.

Southside Elementary School is in a district that requires teachers to teach standards using an Explicit Direct Instruction (EDI) method. Direct instruction is often used to describe intervention methods for special education or at-risk students (Kinder, Kubina, & Marchand-Martella, 2005). The goal of direct instruction is for students to reach mastery level before learning a new skill and is considered a teacher-centered strategy (Al-Makahleh, 2011). "This strategy focuses on procedures followed by teachers and the curriculum and identifies specifically and explicitly what skills need to be learned step-by-step, instead of leaving the students to their own experience" (Al-Makahleh, 2011, p.200). This strategy did not allow teachers to involve students in the planning or decision making necessary for a successful service-learning project.

Teachers are responsible for showing the administration lesson plans for each lesson, each day, written in EDI format. Alice explained that this model does not lead to student exploration and deeper understanding of the standards being taught. This required

method of lesson planning influenced the implementation of service-learning because all of the information could not have been given to the students at the beginning; students should have a voice and be responsible for exploring the knowledge to make their project successful (Billig, Root, and Jesse, 2005; Celio, Durlak, and Dymnicki, 2011; Morgan & Streb, 2001).

Sandmann, Kiely, and Grenier (2009), focused their study on planning for a service-learning course at the university level, but suggested that because service-learning does not have a theoretical planning model to guide practice, teachers usually resort to the linear, formulaic planning techniques. I did see the participants in this study struggle with planning for service-learning, mainly because service-learning did not fit into their planning model they were comfortable using on a weekly or daily basis. The participants in this study had a lesson plan format that they were required to use for each subject and each teacher used the same lesson plans for each subject area. These teachers were not provided guidance through professional development or by Katie's Krops for the implementation of a service-learning experience.

Each time we met, teachers told me that there was no planning for the service-learning project. Lydia said, "I did not plan, it all just happened kind of organically." Alice only planned for the initial building of the garden, she said, "I had to plan for it because other people were involved." Amanda said, "I'm not planning, I just take some time when we are walking by the garden to weed or water if someone [Lydia] tells me to." When asked why there was no planning, the previously stated themes were brought up in conversation again. Teachers believed they did not know enough to plan, or there was not enough time to plan. When the principal was asked about the lack of planning,

she explained, "Teachers are planning for something they are not familiar with. It tells you that the adults in the building aren't used to giving back, in a process way, which should be a learning curve for them, but that's ok, let them learn." The principal acknowledged that teachers struggled with planning for service-learning, but did not know what resources to use to provide professional development. She hoped that teachers would be able to learn from each other.

After the second academic year of data collection, teachers began to reflect on their planning strategies and began to think about alternative ways to better plan for the project in the future. This reflective activity may have resulted from the focus groups during which the researcher interacted with the teachers and prompted them to consider service learning tenets. As stated in chapter 2, reflection or "reflective observation" is necessary for learning (Kolb, 1984). Kolb (1984) defines reflection as an exercise to understand and conceptualize the experience. According to Dewey (1997) reflection leads to understanding through the observation of problems and testing various solutions. Through reflection the teachers talked through what was not working and how to effectively make some changes in their planning for next school year. With this level of reflection, teachers should have begun to further develop an understanding of service-learning.

Alice's definition of service-learning was congruent with literature because she understood that it was a connection to academic standards and more global than just learning how to garden. However, her lack of gardening knowledge and lack of overall interest in the project prevented her from integrating the project with her standards. Since reading and writing instruction was Alice's strength, if these subjects could be

further integrated into her planning of the service-learning project, she may have had more success. She stated at our last focus group, "My thoughts are more that it's centered around the standards and the things they can learn around doing a service for others, more global. Like we might be using the garden, but what can they learn other than just how to garden, they can do the math and the community part of giving it back." Throughout the project, I believe Alice really gained a full understanding of service-learning.

Lydia specifically stated that she was not involved in the project to bring in academic standards but to ensure that students were able to try new vegetables and give back to the community. However, according to her goals, Lydia was successful in her garden project. She was able to plant seedlings with her class two years in a row, each year the students were involved in maintenance tasks, and were able to weigh the harvest before it was donated to those in need. These community service and volunteer tasks are a valuable part of the project and should be considered an accomplishment.

Although she was not intending on integrating academic standards, Lydia's planning style with the project seemed to be the most successful in that integration. I labeled Lydia's "off the cuff" planning as emergent planning because it seemed that she could create a lesson and activity as she felt the students were interested and engaged. It seemed that her emergent curriculum was engaging for the students, but she could have taken it farther and planned a writing lesson that focused on informative writing, which is a standard in elementary school. She could have met academic standards easily, if her goals matched the true definition of service-learning. Lydia's background was science and she was a member of the Master Gardener program. Her content knowledge of

gardening was evident, but her attitude towards planning seemingly constrained her from a successful implementation of a true service-learning project. She stated several times that if she was required to write lesson plans or plan something for each subject using the garden she would not want to participate in service-learning.

Amanda's understanding of service-learning remained focused more on the community aspect over the course of two years. She did not seem to focus on academic standards, but she did consistently tell me she wanted her students to be more involved. Her expectation was for students to learn how to be leaders and give back to the community. Unfortunately, because there was no academic planning in connection to the project, Amanda did not further her understanding of service-learning. In order for a project to be considered service-learning, it has to include a connection to academic standards or objectives (Eyler & Giles, 1999). Amanda's involvement in the project increased in the spring of 2017. She was able to harvest and weigh the lettuce and share a salad with her students.

Of concern, Callie's definition of service-learning suggested that she knew nothing about the project after school had started almost two months prior. This knowledge led me to question whether the teachers were implementing the project during those two months. I also questioned whether the goals or expectations of the project were discussed in any planning meeting during that time. Throughout the project, Callie may have not have gained an understanding of service-learning, but she did begin to understand the goals of a Katie's Krops garden. Callie's future goals were for her students to volunteer more and for students to see where the harvest was donated. She

also stated that she would need more time to be successful in implementing a servicelearning project.

As previously stated, the essential components of effective service-learning include impacting the community, connecting academic standards, reflection, incorporating student voice and involving community members (Billig, Root, and Jesse, 2005; Eyler, 2002; Ponder, Vander Veldt & Lewis, 2011). These teachers were successful in impacting the community by helping students donate vegetables to families in need. They minimally connected to writing standards and math standards, and Alice involved a business partner to help build the garden. The one component that all the teachers seemed to lack was reflection. There was no evidence found that teachers used reflection as a tool in their service-learning project.

How are teachers' perceptions and implementation of service-learning influenced during the use of a garden-based program in the classroom?

Although teachers were successful in building, planting, and harvesting vegetables from their garden, each teacher experienced different challenges. Some of these challenges were influenced by the garden-based focus of the project. Teachers' experiences were further limited by a lack of coherence between school and service-learning goals, a lack of time, and their lack of content and pedagogical knowledge.

This project focused on using a garden-based program, although this may not always be the basis of a service-learning project. The fact that a garden-based project was used influenced Alice and Amanda significantly because they claimed to not possess the content knowledge necessary to maintain a garden. As I shared in chapter 4, Alice indicated that she did not have an interest in gardening, nor did she have the desire to

learn on her own about gardening. Amanda stated several times that she did not know what to do in the garden unless Lydia offered her guidance. Perhaps their experiences would have been different if a different type of project was implemented using a different type of organization that was not garden focused.

The pressure teachers felt caused them to interpret the service-learning project as extra work for them. Service-learning was perceived by most teachers as a burden or extra work, and this perception created a unenthusiastic attitude towards service-learning as a pedagogical strategy. Instead of teachers seeing the garden as a curricular tool to meet state standards, using hands-on, real-life experiences, it was perceived as another obligation or expectation from administration. Both Callie and Amanda shared that they felt they could not dedicate their energy to the service-learning project because they had other obligations to accomplish. This concern seemed to strengthen as the school year progressed and more obligations were added to the teachers' workload. The pressure was at the highest when state mandated standardized testing was on the horizon.

Teachers had this concern, mostly because they did not feel they had the time necessary to devote to planning a service-learning project, which was influenced by the pressure they felt from their administrator. This led, ultimately, to a lack of planning for any academic standards to be taught using the garden. This lack of planning is consistent with current research. Studies show that planning was influenced mainly by state regulations and expectations and guidelines established by administration (Egeler, 1993; McCutcheon, 1981). These teachers perceived the state standards as being most important and felt that administration was placing more emphasis on other obligations rather than service-learning, so they spent their extra time devoted to those expectations.

Teachers felt that they were being required to implement something, without feeling they had the time necessary to devote to planning. Time seemed to be the biggest perceived inhibitor of implementing the service-learning project. A recent survey of teachers in West Virginia illustrates that elementary school teachers' instructional planning is limited. Elementary educators reported the lowest average daily planning time of 40 minutes when compared to middle and high school teachers. Middle school and high school educators, on average, had an hour to an hour and a half of daily planning time. It was also reported that elementary teachers have a higher number of daily preps than middle and high school teachers, which calculates to teachers having approximately nine minutes per prep to plan daily (Hixson, Stohr, & Hammer, 2013). Finally, the data from the West Virginia survey further confirms the findings of this study; teachers reported that their planning time is rarely used for instructional planning. Teachers have meetings and other obligations that are mandatory during those 40 minutes of planning time. For teachers to implement a service-learning project, teachers need to feel that they are given the time during the workday to successfully plan for it. In this study, Callie and Amanda both had young children at home who required their attention. They were not able to prepare lessons, or research service-learning strategies after school hours because they had other motherly obligations. This may be the reason for their persistent mention of time being the biggest inhibiting factor. Alice and Lydia had older children who did not require their attention. Although they felt pressure from administration, time was not as much of a limiting factor.

There were additional underlying factors that led to that time issue. Teachers were planning for something with which they were uncomfortable. They did not have the

content knowledge of the subject of gardening, nor did they have the pedagogical knowledge to effectively implement a service-learning project. Studies suggest that teacher knowledge influences teacher practices thus influencing student outcomes, and professional development is crucial in developing the knowledge to change teacher practice (Desimone, 2009; McCutchen et al, 2002; Spear-Swerling & Zibulsky, 2014). Desimone (2009) suggests that professional development must be congruent with school policies and expectations. In this school, the administration's expectations were perceived to be focused on the EDI lesson planning format and specifically the 7 Habits and data notebook components of the *Leader in Me* program. Teachers put servicelearning aside while they met these expectations, leaving little time or energy to come back to service-learning effectively. In sharp contrast, conversations with the principal indicated that she believed standards should be met through service-learning. It was also her expectation that teachers should be planning with standards and service-learning in mind. She also understood that district and state policies led to a compartmentalized curriculum and that teachers struggled to bring service-learning and academics together, yet she did not provide professional development opportunities for her teachers to learn new strategies. Without improving these teachers' content and pedagogical knowledge, or aligning expectations, having more time would not necessarily change the negative perception that teachers already had.

Implications

This study adds to the current research because it focused on elementary teacher practices rather than student outcomes. This study focused on how service-learning impacts elementary teachers, an inquiry that appears to be missing from existing

literature. Service-learning cannot be taught in isolation from other subjects (Eyler & Giles, 1999; Kielsmeier et al., 2004), nor is it a produced curriculum that teachers can purchase and implement with a teacher manual and textbook (McCutcheon, 1980; Sandmann, Kiely, and Grenier, 2009). There is not a universal model for planning service-learning either at the university or elementary level (Sandmann, Kiely, and Grenier, 2009; Whitley& Walsh, 2014).

In this study, although not consistently, Lydia used her interactions with her students and the students' interactions with the garden to engage students in further activities. This emergent approach is based on the Reggio philosophy of early childhood education. This philosophy is based on teachers not planning the outcomes, but the outcomes growing organically from the students' interaction with learning opportunities. These learning opportunities may be in the form of free play, problem solving tasks, or real-life experiences (Wien, 2008). This emergent curriculum may add to an elementary specific planning model for service-learning.

For service-learning to be effective and beneficial for students as well as meaningful for teachers, they may benefit from planning template. Additionally, they need support from administration as well as the organizations they are servicing. Most importantly they need professional development to learn how to implement such a curricular tool.

Planning for Service-Learning

Billig (2000) suggests that "the differences in [service-learning] definition reflect a division of opinion in the field regarding whether service-learning is a philosophy of education, a curricular tool, or a program design" (p. 659). These differences may

influence planning strategies. Those who believe service-learning is a philosophy of education may consider the role of schools as to develop responsible, caring citizens (Billig, 200). Thus, they envision service-learning in terms of education reform. Those who believe service-learning is a program design may use it as an elective for high school students or an after-school program focused more on the community service aspect (Billig, 2000). Drawing from the challenges that the teachers in this study faced, service-learning at the elementary level should be considered a curricular tool that can be integrated into the curriculum and aligned with standards. Making this purpose clear may help to develop a clear planning model for teachers.

As with any curricular tool, it is important for teachers and instructors to plan for the implementation of a service-learning project. The existing literature focusing on a framework for service-learning is very limited. In 2009, Sandmann, Kiely, and Grenier suggested that service-learning research fails to capture the planning and process dimensions of programs. Although this study focused mainly on graduate level service-learning programs, it can be related to other academic levels. They suggest that service-learning is missing program theories to guide practice, and curriculum developers resort to the linear, formulaic approaches such as Tyler's model. In this study, teachers did not use Tyler's model, but did resort to their own planning strategies that did not transfer to the planning of service-learning.

Sandmann, Kiely, and Grenier (2009) (See Figure 5.1) show that there is a need for a planning model for service-learning, but neglect to include elementary programs in their model. Planning for elementary students is different than graduate students, but this model can be adapted and modified to help elementary school teachers plan for service-

learning (See Figure 5.2). As Sandmann, Kiely, and Grenier's (2009) model shows, planning for service-learning is not a linear, formulaic method. The arrows show that

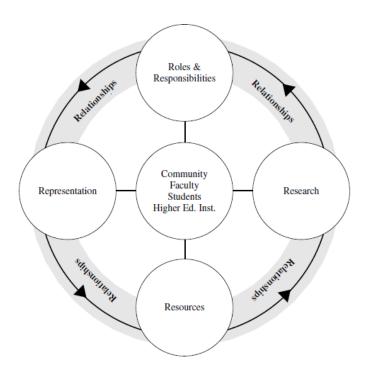


Figure 5.1. Image of Sandmann, Kiely, and Grenier (2009) service-learning program planning model (SLPPM).

every step of the process is connected, and the process may change as the project moves forward.

The model (SLPPM) is centered around four partners. These partners include students, faculty, community partners, and the higher education institution. Each partner holds "a stake in the success of a service-learning program, all have influence over the process, and all have interests to maintain and cultivate" (Sandmann, Kiely, & Grenier, 2009, p. 23). It is important that each partner is included in each of the proposed dimensions within the planning process. "The goals and objectives of the service-learning program should be derived from the shared goals and visions of the partners" (Sandmann, Kiely, & Grenier, 2009, p. 27). In an elementary setting, these partners

include students, teachers, community members or the organization being served, and school administration. During the planning process, if each partner is recognized and incorporated, the goals and expectations of each partner will be addressed alleviating some of the pressure that was experienced by the teachers in this study. In my proposed model (See figure 5.2), I added these goals to the center of the planning process. In order for service-learning to be successful, the project must benefit all partners (Sandmann, Kiely, & Grenier, 2009). By adding these goals to the center of the model, it reminds teachers that they need to include students in the planning process, as well as their administration and the community members with whom they work.

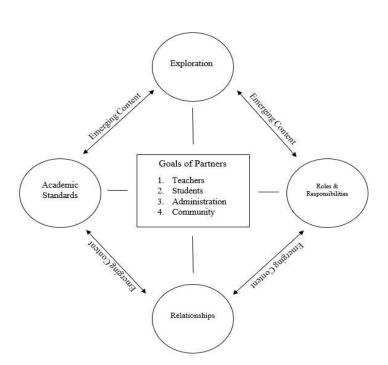


Figure 5.2. Proposed Elementary Planning Model

For teachers in this study, the most important goal in their classroom was meeting academic standards. To plan for service learning, teachers need to begin prior to the first day of school. Teachers should look at their academic standards and see what kind of service may fit into those standards. This strategy may use the "backward design"

method of planning. This backward design focuses first on the outcomes of the lesson as well as the evidence that the outcomes have been successful (Wiggins & McTighe, 2005). If teachers could first discuss the standards they need to meet and then match them with the expected outcome of a service-learning project, then their daily lessons can be developed with both in mind (Wiggins & McTighe, 2005). For example, third grade science standards include characteristics of soil, or the life cycle of a plant (Southeastern State Standards, 2014). These standards would be taught well in a garden. Social Studies standards (Southeastern State Standards, 2014) include Native Americans, and students could plant flowers or crops that may have been used by Native Americans to survive in the region. If a teacher can develop a few different ideas based on standards, then students can choose which project they would like to focus on for the year.

Stiler (2009) used backwards planning to teach preservice teachers to design service-learning lesson plans. In a Multicultural Education course, students were asked to develop service-learning lesson plans over a four-week period. The lesson plans were then assessed using a rubric. The study found that the lessons planned by elementary education majors had more connection to character education standards rather than content areas. It was also found that "lesson plans generally did not meet actual community needs and were not constructed in ways that improved the quality of life of those to be served" (p.116). Stiles (2009) concluded that even though backwards design and service-learning are not convergent, addressing the overall goals and essential questions is a necessary part of the process to develop lessons. Although this study has limitations because the lessons were never actually taught in a classroom, it suggests that "backwards design" may be useful in planning for a service-learning project. By putting

the goals at the center of the model, it reminds teachers and other partners to start with the goals or outcomes prior to the start of the project.

The SLPPM includes five dimensions, research, relationships, roles and responsibilities, representation, and resources. Each dimension is focused on a different element that each partner brings to the planning process based on their goals and intentions for the project. According to their research, one of the most important dimensions of the SLPPM is relationships. Fostering communication and relationships between all partners helps to ensure the success of the project. This dimension transfers to an elementary program as well. In this study, it was evident through the data that teachers and administration did not have congruent goals and expectations. By including relationships as a part of the planning model it helps to keep all partners goals at the forefront of the planning process.

The second dimension I included in my proposed model is roles and responsibilities. This dimension is also part of the SLPPM and translates to the elementary level. In the SLPPM, the "partners must consider their individual and collective roles and contributions, as well as their responsibilities, in the planning, decision-making, and action of the service-learning while balancing partner resources, the scope of the service-learning function, and long-term relationships" (Sandmann, Kiely, & Grenier, 2009, p.24). During this study, it was evident that the teachers did not focus on what their own roles could be. The project may have been more successful if each teacher took on a different role with their classes. For example, Alice's strengths were in reading and writing, her responsibilities for the project could have focused on those areas. Her students could have done the research necessary for growing specific vegetables or

could have written letters or thank you cards to community members. Lydia's role could have been to take Alice's research and put it into action by planting the vegetables in the garden and using the research to maintain those crops. If Callie is focused on math, her class could collect data and display it in the school. They could measure the growth of the plants, weigh the harvest that is donated, and they could develop a budget for the grant money left over after each growing season. These roles and responsibilities help keep partners accountable and invested in the project because they fit each person's talents or specific goals. It is also important to note that service-learning may look different in each classroom based on these roles and responsibilities.

Because this model is geared toward graduate level programs, all dimensions may not directly translate to elementary level service-learning. For example, at the graduate level, students are expected to conduct independent exploratory research to better understand contextual factors that may have an effect on the program being designed or implemented. At the elementary level, students may not be developmentally able to conduct independent research or be able to independently understand the contextual factors. This dimension of planning may be labeled as exploration. At the elementary level, the partners must explore together throughout the project. Teachers, administration, and community partners must foster dialogue and research in the classroom to facilitate student exploration of the contextual factors influencing the project. As students explore, themes will emerge as they discover their interests and the next steps in the implementation of the process. As different aspects or needs of the project emerge, the planning process will be influenced. The proposed elementary planning model consists of an emergent curriculum dimension.

Emergent curriculum is a teaching method used in early childhood education settings and is based on the Reggio Emilia approach (Rinaldi, 1993). This approach is based on listening rather than speaking. In other words, the teacher needs to spend time listening and observing students rather than giving them the information they need to know (Rinaldi, 1993). Emergent curriculum is theoretically based on the work of Vygotsky, Dewey, and other constructivists. It stresses the importance of participation and experience in the acquisition of knowledge (Dewey, 1938; Vygotsky, 1978.) This is a sharp contrast with the EDI method required by the school in this study. The EDI method does not allow for student exploration or deeper understanding of the standards taught. I would propose that this new model replace the EDI format when planning for a service-learning project.

Rahm (2002), found that science learning opportunities emerged from youth exploration in an inner-city garden program. Through the gardening program, 23 inner-city youth ranging in age 11 to 14 were observed and interviewed as they participated in a gardening program. Through their interactions with the environment, peers, and youth leaders, and through active sense making, science content emerged. As the science content emerged, youth leaders were able to provide further learning opportunities.

Although this study was not in a formal education setting, it illustrates the possibilities of using emergent curriculum in service-learning.

When planning for an emergent curriculum, teachers must lay out the general educational objectives, but they should not formulate specific goals for each activity in advance. The teacher must study the children and provide occasions or opportunities for learning to occur (Edwards, 1993). Rinaldi (1993) suggests,

"At the initiation of a project, the teachers should get together and discuss fully all the possible ways that the project should be anticipated to evolve, considering the likely ideas, hypotheses, and choices of children. By so doing, they prepare themselves for all the subsequent stages of the project-even should the unexpected occur" (p. 104).

It is then important for teachers to set up the learning environment for students to explore and discover necessary components for the project. While students are working in the pre-planned, focused environment, the teacher observes and collects data which are used for planning the next steps in the exploration of the topic (Edwards, 1993). In the model suggested for elementary level planning, emerging content is the dimension represented by the arrows connecting the other dimensions. This reminds teachers that through the planning of other dimensions, content should emerge to further the servicelearning project. For example, through student exploration of the garden, students will discover the necessary steps to further the success of their project. The students may discover the need for a fence to keep other animals from eating the crops. Through this exploration, the academic standards involving perimeter are emerging. This may lead to the teacher planning a necessary experience for students to further explore perimeter on a large scale. The arrows pointing in both directions shows that planning for servicelearning is not a concrete step by step process, but is cyclical, and as the project continues the planning may take many different directions. This may also lead to classroom differences in service-learning. Different students will explore different areas of the garden and have different experiences leading to different emerging content.

Support from Administration and Organizations

This study found that one of the underlying factors that teachers felt inhibited their success was that administration was more focused on priorities other than service-learning. If administration makes service-learning projects a requirement and expects a successful outcome, teachers need to feel supported in their efforts. Positive feedback, assistance in the classroom, and participation in the project are all ways that administration could support the teachers. Administration may also need to provide time and space for teachers to plan cooperatively, or to reflect with one another about their project.

Principal support influences how teachers feel about themselves and their work (Littrell, Billingsley, & Cross, 1994). Studies find that when teachers feel supported by their principal, they are less stressed, they are more productive and committed to their job, and have a more positive attitude towards their job (Billingsley & Cross, 1992; Dworkin, Haney, Dworkin & Telscow, 1990). By giving approval, providing constructive feedback, and encouraging professional growth, administrative support is important for teachers to feel that their work is valued and meaningful (Littrell, Billingsley, & Cross, 1994).

This study also found that teachers needed more support from the organization it was helping. Katie's Krops is not an organization geared towards education settings, in fact of their 100 gardens, most are at the homes of the grantees. Although the organization is geared toward individual children in informal environments such as their backyards, Katie's Krops can be a successful service-learning opportunity in a formal education setting. "The mission of Katie's Krops is to empower youth to start and

maintain vegetable gardens of all sizes and donate the harvest to help feed people in need, as well as to assist and inspire others to do the same" ("Katie's Krops," n.d.) This mission can be applied in elementary school classrooms and integrated with academic standards. As previously mentioned, third grade standards in this southeastern state include earth materials, informative writing and Native Americans. These standards lend themselves to incorporating the Katie's Krops mission well. When teaching earth materials, students could collect soil samples from the garden to compare and contrast the properties and then could test which soil sample would be better for growing plants. This can be used to write an informative piece that could be sent to other Katie's Krops schools to help other students be successful in their garden. And finally, when teaching about Native Americans, students could research the native plants of the region and plant them in their garden to donate. If Katie's Krops could help provide curriculum support or content knowledge for gardening in the area, then teachers who receive the grants would be able to be more effective in their projects. They could provide supplemental materials, or a liaison for teachers to contact for support in their classrooms.

Professional Development

Finally, this study found that teachers did not have the pedagogical knowledge necessary for using the service-learning methodology in their classroom. Teachers need professional development to begin planning for and implementing a service-learning project. Emergent curriculum could be an area in which to provide that professional development. Teachers need to also learn how to incorporate goals of the project into mandated standards, and without this professional development and allotted time for this to occur, teachers may not be successful.

Professional development is necessary when new educational strategies are necessary to implement curriculum (Sykes, 1996). Effective professional development is an experience that increases teacher knowledge and changes their practice which leads to improved student achievement (Desimone, Porter, Garet, Yoon, & Birman, 2002). In this study, Lucy, the principal acknowledged that she did not provide professional development opportunities for her teachers to learn how to implement service-learning. She also acknowledged that she did not communicate effectively her expectations or goals for service-learning. This may have led to the negative perceptions of servicelearning that the teachers experienced. This is evidence for Desimone's framework (2009) for professional development. She suggests that coherence is important for professional development to be successful in changing teacher practices. Professional development must align with school, district, and state policies. Lucy knew that her teachers would struggle with bringing service-learning together with academics because district and state policies did not allow for it, but she did not provide support or professional development to help. Lucy stated that she did not know where to find professional development for her teachers, and in my search for professional development literature focused on elementary service-learning, I also did not find any academic journal articles. Desimone (2009) outlines that professional development must also be content focused, involve active learning, include 20 hours of contact time, and teachers who work in the same school or on the same team should learn together. When planning a professional development experience based on service-learning, these factors will need to be considered.

Limitations

The limitations of this study that were noted can be explained by the mitigating circumstances that inhibited data collection, the sample of the study and length of study.

Mitigating Circumstances

This study was influenced greatly by circumstances the teachers could not control. These circumstances included weather, construction, and my personal leave of absence during the school year. In October of 2015, a major flood caused the school to be canceled for a week, and the building of the garden to be postponed. Also, at the beginning of 2016, a new roof was constructed on the school preventing access to the garden space because of construction equipment. At the beginning of the school year in August 2016, I, the researcher was on a personal leave of absence from the school. This prohibited data from being collected, and could have influenced the implementation of the project because I was not there to offer my suggestions in planning meetings or interviews. Finally, in October 2016, Hurricane Matthew hit the southeastern states and caused school to be closed again for a week. These circumstances could have influenced the outcomes of this study.

Sample

The sample of the study only included one school, in one district, and one grade level. This is a limitation because these teachers' perceptions may have been influenced by each other as they worked together on a team. Other teachers may have planned differently or had different experiences throughout the school year as they implemented their projects. The findings of this study may not allow for generalizability to all teachers. However, because this study was only the first to gain insight to what teachers

need to be successful, the same outcomes may have been concluded from other participants.

Length of Study

As previously mentioned, teachers in this study began to really reflect on their planning strategies as the project progressed. By year two, teachers were coming up with several ideas for the next school year to better implement their service-learning project. By ending the research after two years, teachers may not have been able to fully establish their service-learning projects.

Recommendations for Future Research

The findings of this study add to the current literature of service-learning, however much more research is necessary to understand how teachers plan and implement service learning. Future research needs to include more study sites and teachers using different types of service-learning in the classrooms; it needs to include teachers who have received professional development, and studies that follow teachers longitudinally through their service-learning implementation.

It is recommended that future studies include several other school sites, in other districts. The particular elementary school and district that was the site for this study may have different policies or requirements than other elementary schools or school districts. Researchers may find different results from teachers at different elementary schools in different districts because of these different policies and expectations.

Future studies may yield different results when teachers are using different service-learning projects or working with different organizations. Katie's Krops focuses on garden-based learning, but other organizations may not require teachers to have the

content knowledge to build, plant, and manage a garden space. Other organizations may have a specific liaison that works directly with schools, and may allow teachers to have a resource when lesson planning for their service-learning project.

Thirdly, different results may be found after teachers have received professional development. Once teachers have gained the pedagogical knowledge how to implement an effective service-learning project, teachers may have different perceptions and planning strategies. It would be ideal for professional development to include emergent curriculum strategies. A recent study (DeJarnette & Sudeck, 2016), published while conducting my research, studied teacher candidates who were given instruction on how to implement service-learning and then required to implement an interdisciplinary unit in their elementary placement site that included service-learning. This study shows an increase in teacher efficacy, as well as an increase in service-learning curriculum development (DeJarnette & Sudeck, 2016). This study, unfortunately, does not include references to the model or a description of the strategies used to teach the planning and implementation of the service-learning. Future research should focus on a planning model to help provide professional development for teachers who do not have the pedagogical knowledge to implement service-learning. Several models and frameworks of planning for service-learning were discussed previously. Future research should focus on which model has the most significant impact on the planning of service-learning projects. Could the university level framework be adapted to the elementary level? Is backwards design the best method?

Finally, future studies should follow teachers longitudinally to see how their projects progress and how they develop planning strategies for successful service-

learning projects. The participants in this study had limited understanding of service-learning at the beginning of year one, and they learned from their experiences. As teachers experience more, researchers may gain more insight to the planning of service-learning projects. The more the teachers learn, the more successful they may feel and the more confident they may become in their planning. This may lead to a more positive perception than what was found during this study.

Final Remarks

This study focused on the perceptions of elementary school teachers as they planned and implemented a service-learning project in their classrooms. The purpose was to gain insight into teacher practices and strategies as they planned for such a project. Before this study, there were very few studies that focused on service-learning in the elementary classroom, and none were identified that focused on teacher planning for a service-learning project. The study was designed on a constructivist framework that service-learning curriculum would emerge through interactions between students, teachers, Katie's Krops, and the project.

The study provided insight on teachers' perspectives and underlying factors that influenced their planning and implementation of service-learning. The results of this study support the existing literature that teachers plan using pacing guides, teacher manuals, and other district provided resources, including the EDI format. The teachers' planning strategies led to a lack of planning for the service-learning project and teachers' negative perceptions of service-learning as a pedagogical strategy.

Through this study, the researcher could understand what the teachers valued as important to implement in their classrooms, and what hindered their implementation of a

successful service-learning project. It was found that teachers did not have the knowledge necessary to plan for an emergent type curriculum that service-learning may be, nor did they have the content knowledge necessary to manage a garden. Teachers also did not feel they had the time to implement the project with the other pressures and obligations they had to accomplish. The limited knowledge of service-learning and the process further indicates the necessity for professional development in elementary schools. This study suggests that it is necessary for further research on the planning of service-learning in elementary classrooms to determine which planning strategy has the most significant impact on a service-learning project. Identifying such areas that need to be examined can improve the implementation of service-learning and thus further benefitting elementary students.

REFERENCES

- A Whole School Transformation Process. (n.d.). Retrieved August 14, 2017, from http://www.theleaderinme.org/what-is-the-leader-in-me/
- Al-Makahleh, A. A. (2011). The Effect of Direct Instruction Strategy on Math

 Achievement of Primary 4th and 5th Grade Students with Learning Difficulties. *International Education Studies*, 4(4), 199-205.
- Anderson, C. (2007). Perspectives on science learning. In *Handbook of Research on Science Education* (pp. 3–30). Lawrence Erlbaum Associates, Inc.
- Anderson, M., & Swafford, M. (2011). Hydroponic garden promotes hands-on learning, healthy eating. *Techniques: Connecting Education & Careers*, 52–55.
- Appleton, K. k. (2002). Science Activities That Work: Perceptions of Primary School Teachers. *Research in Science Education*, *32*(3), 393-410.
- Astin, A., Vogelgesang, L., Ikeda, E., Yee, J. (2000). How service-learning affects students: An executive summary. *Higher Education Research Institute*, University of California, Los Angeles.
- Barnes, M. E. (2016). The Student as Teacher Educator in Service-Learning. *Journal Of Experiential Education*, 39(3), 238-253.
- Billig, S. (2000). Research on K-12 school-based service learning: The evidence builds. *Phi Delta Kappan*, 81(9), 658-664.
- Billig, S., Root, S., & Jesse, D. (2005). The relationship between quality indicators of service-learning and student outcomes: Testing the professional wisdom. In S.

- Root, J. Callahan, & S.H. Billig (Eds.), *Advances in service learning research: Vol. 5* (pp. 97-115). Greenwich, CT: Information Age.
- Billingley, B. & Cross, L. (1992). Predictors of commitment, job satisfaction, and intent to stay in teaching: A comparison of general and special educators. *The Journal of Special Education*, 25, 453-471.
- Blair, D. (2009). The child in the garden: An evaluative review of the benefits of school gardening. *Journal of Environmental Education*, 40(2), 15–38.
- Bogdan, R., & Biklen, S. (2007). *Qualitative research for education: An introduction to theories and methods* (5th ed.). Boston, MA: Pearson A & B.
- Bowker, R., & Tearle, P. (2007). Gardening as a learning environment: A study of children's perceptions and understanding of school gardens as a part of an international project. *Learning Environments Research*, 10, 83–100.
- Brown, D. (1988). Twelve Middle-School Teachers' Planning. *The Elementary School Journal*, 89(1), 69-87. Retrieved from http://www.jstor.org.pallas2.tcl.sc.edu/stable/1001913
- Canaris, I. (1995). Growing foods for growing minds: Integrating gardening and nutrition education into the total curriculum. *Children's Environments*, 12(2), 264–270.
- Celio, C., Durlak, J., &Dymnicki, A. (2011). A Meta-Analysis of the impact of service learning on students. *Journal of Experiential Education*, *34*(2), 164–181.
- Chien, C. (2017). Undergraduates' implementations of learning stations as their service-learning among elementary school students. *Education 3-13, 45*(2), 209-226.

- Choi, J.-I., & Hannafin, M. (1995). Situated cognition and learning environments: Roles, structures, and implications for design. *Educational Technology Research and Development*, 43(2), 53–69.
- Cone, N. (2009). Preservice Elementary Teachers' Self-Efficacy Beliefs about Equitable Science Teaching: Does Service Learning Make a Difference? *Journal of Elementary Science Education*, 21(2), 25-34.
- Creswell, J. & Miller, G. (1997). Research methodologies and the doctoral process. *New Directions for Higher Education*, 99, 33-46.
- Davis, D. (2013). Cognitive and affective outcomes of short-term service-learning experiences: An exploratory study. *International Journal for the Scholarship of Teaching and Learning*, 7(2), 1-15.
- DeJarnette, N. K., & Sudeck, M. (2016). Advocating for a cause: Civic engagement in the K-6 classroom. *Journal of Social Studies Education Research*, 7(1), 140-162.
- Desimone, L. (2009). Improving impact studies of teachers' professional development:

 Toward better conceptualization and measures. *Educational Researcher*, 38(3),
 181-199.
- Desimone, L. M., Porter, A. C, Garet, M., Yoon, K. S., & Birman, B. (2002). Effects of professional development on teachers' instruction: Results from a three-year longitudinal study. *Educational Evaluation and Policy Analysis*, 24(2), 81-112.
- Dewey, J. (1938). Experience and Education. New York, NY: Collier Books
- Drake Dones, T. (1999). The effects of a service learning program on sense of community and perceptions of control in elementary school students. (Doctoral dissertation,

- Indiana University). Received from ProQuest Dissertations Publishing. (9942844).
- Dworkin, A., Haney, C., Dworkin, R., & Telschow, R. (1990). Stress and illness behavior among urban public-school teachers. *Educational Administration Quarterly*, 26(1), 60-72.
- Edwards, C. (1993). Partner, nurturer, and guide: The roles of the reggio teacher in action. In *The Hundred Languages of Children* (3rd ed., pp. 101-111). Norwood, NJ: Ablex Publishing Corporation.
- Egeler, D. (1993). Factors that influence the instructional planning of teachers. *Educational Planning*, 9(3), 19-37.
- Eppler, M. A., Ironsmith, M., Dingle, S. H., & Errickson, M. A. (2011). Benefits ofService-Learning for Freshmen College Students and Elementary SchoolChildren. *Journal of The Scholarship of Teaching and Learning*, 11(4), 102-115.
- Eyler, J. (2000). What do we most need to know about the impact of service-learning on student learning? *Michigan Journal of Community Service Learning*, 7, 11-17.
- Eyler, J. (2002). Reflection: Linking service and learning linking students and communities. *Journal of Social Issues*. *58*(3), 517-534.
- Eyler, J. and Giles, D.E. (1999). Where's the learning in service-learning? (pp. 3-5). San Francisco: Bass.
- Gardner, E. & Baron, C. (1999). Attitudinal and academic effects of service-learning. *Journal of Prevention & Intervention in the Community*, 18(1-2), 97-109.
- Glaser, B. & Strauss, A. (1967). The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine Pub

- Glesne, C. (2011). *Becoming qualitative researchers: An introduction* (4th ed.). Boston, MA: Pearson Education.
- Graham, H., Beall, D., Lussier, M., McLaughlin, P., & Ziden-Cherr, S. (2005). Use of school gardens in academic instruction. *Journal of Nutrition Education and Behavior*, 37, 147–151.
- Guba, E. (1981) Criteria for assessing the trustworthiness of naturalistic inquiries, *Educational Communication and Technology Journal* 29, 75–91.
- Hixson, N., Stohr, A.D., & Hammer, P.C. (2013). *Instructional planning: A review of existing research and educator practice during the 2012-2013 school year*.Charleston, WV: West Virginia Department of Education, Division of Teaching and Learning, Office of Research.
- Hurd, C. (2006). Is service-learning effective? A look at current research.
- Kagan, D. 1., & Tippins, D. J. (1992). The evolution of functional lesson plans among twelve elementary and secondary student teachers. *Elementary School Journal*, 92477-489.
- Kielsmeier, J. (2003). A time to serve, a time to learn: New roles for youth. *Generator*, 21 (3), 5-14.
- Killen, M. & Turiel, E. (1998). Adolescents' and young adults' evaluations of heloing and sacrificing for others. *Journal of Research on Adolescence*, 8(3),355-375.
- Kinder. D., Kubina, R., & Marchand-Martella, N. (2005). Special education and direct instruction: An effective combination. *Journal of Direct Instruction*, *5*(1), 1-36.
- Koeller, S., & Thompson, E. (1980). Another look at lesson planning. *Educational Leadership*, (May), 673–675.

- Kohlstedt, S. (2008). "A better crop of boys and girls": The school gardening movement, 1890-1920. *History of Education Quarterly*, 48(1), 58–93.
- Lakin, R. & Mahoney, A. (2006). Empowering youth to change their world: Identifying key components of a community service program to promote positive development. *Journal of School Psychology*, 44, 513-531.
- Libman, K. (2007). Growing youth growing food: How vegetable gardening influences young people's food consciousness and eating habits. *Applied Environmental Education & Communication*, 6(1), 87–95.
- Littrell, P. C., Billingsley, B. S., & Cross, L. H. (1994). The effects of principal support on special and general educators' stress, job satisfaction, school commitment, health, and intent to stay in teaching. *Remedial & Special Education*, *15*297-310.
- Markus, G., Howard, J. & King, D. (1993). Integrating community service and classroom instruction enhances learning: Results from an experiment. *Educational Evaluation and Policy Analysis*, 15(4), 410-419.
- McArthur, J. (2010). Gardening with youth as means of developing science, work and life skills. *Children, Youth and Environments*, 20(1), 301–317.
- McCutchen, D., Abbott, R., Green, L. Beretvas, S., Cox, S., Potter, N., Quiroga, T., & Gray, A. (2002). Beginning literacy: Links among teacher knowledge, teacher practice, and student learning. *Journal of Learning Disabilities*, 35(1), 68-86.
- McCutcheon, G. (1980). How do elementary school teachers plan? The nature of planning and influences on it. *The Elementary School Journal*, 81(1), 4–23.
- McCutcheon, G. (1981). Elementary school teachers' planning for social studies and other subjects. *Theory and Research in Social Education*, 9(1), 45-66

- McKenna, M. & Rizzo, E. (1999). Student perceptions of the "learning" in service-learning courses. *Journal of Prevention & Intervention in the Community*, 18(1-2), 111-123.
- Merriam, S. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.
- Morgan, W. & Streb, M. (2001). Building citizenship: How student voice in service-learning develops civic values. *Social Science Quarterly*, 82(1), 155-169.
- Neustadter, A., Morris, J., & Zidenberg-Cherr, S. (2001). First-grade gardeners more likely to taste vegetables. *California Agriculture*, 55(1), 43–46.
- Ozer, E. (2007). The effects of school gardens on students and schools:

 Conceptualization and considerations for maximizing healthy development.

 Health Education & Behavior, 34, 846–863.
- Parmer, S., Salisbury-Glennon, J., Shannon, D., & Struempler, B. (2009). School gardens: An experiential learning approach for nutrition education program to increase fruit and vegetable knowledge, preference, and consumption among second-grade students. *Journal of Nutrition Education and Behavior*, 41(3), 212–217.
- Pidgeon, N. (2002). Grounded theory: Theoretical background. In *Handbook of qualitative research methods for psychology and the social sciences* (pp. 75-85).

 Malden, MA: Blackwell Publishing.
- Pidgeon, N. and Henwood, K. (2002). Grounded theory: Practical implementation. In

 Handbook of qualitative research methods for psychology and the social sciences

 (pp. 86-101). Malden, MA: Blackwell Publishing.

- Rahm, J. (2002). Emergent Learning opportunities in an inner-city youth gardening program. *Journal of Research in Science Teaching*, 39(2), 164–184.
- Reiser, R. A. (1994). Examining the planning practices of teachers: Reflections on three years of research. *Educational Technology*, *34*(3), 11–16.
- Rinaldi, C. (1993). The emergent curriculum and social constructivisim. In *The Hundred Languages of Children* (3rd ed., pp. 101-111). Norwood, NJ: Ablex Publishing Corporation.
- Scott, K. & Graham, J. (2015). Service learning: Implications for empathy and community engagement in elementary school children. *Journal of Experiential Education*, 38(4), 354-372.
- Sobel, D. (2001). You learn what you eat: Cognition meets nutrition in Berkeley schools. *Orion Afield*, 5(3), 10–13.
- Soslau, E. & Yost, D. (2007). Urban service-learning: An authentic teaching strategy to deliver a standards-driven curriculum. *Journal of Experiential Education*, 30(1), 36-53.
- Spear-Swerling, L. S., & Zibulsky, J. j. (2014). Making time for literacy: teacher knowledge and time allocation in instructional planning. *Reading & Writing*, 27(8), 1353-1378.
- Steinke, P. & Buresh, S. (2002). Cognitive outcomes of service-learning: Reviewing the past and glimpsing the future. *Michigan Journal of Community Service Learning*, 8(2), 5-14.

- Stiler, G. (2009). Planning to serve: Using backwards planning to design service-learning lesson plans in the preservice curriculum. *Journal on Excellence in College Teaching*, 20(2), 105-123.
- Sykes, G. (1996). Reform of and as professional development. *Phi Delta Kappan*, 77464-467
- The 7 Habits of Highly Effective People. (n.d.). Retrieved August 14, 2017, from https://www.franklincovey.com/Solutions/Leadership/7-habits-signature.html
- Tillema, H.H. (2009) Assessment for learning to teach: Appraisal of practice teaching lessons by mentors, supervisors, and student teachers. *Journal of Teacher Education*, 60, 155–167.
- Tinkler, B., Hannah, C. L., Tinkler, A., & Miller, E. (2015). The Impact of a Social Justice Service-Learning Field Experience in a Social Foundations Course.

 Critical Questions In Education, 6(1), 16-29.
- Tyler, R. (1949). *Basic Principles of Curriculum and Instruction*. Chicago: The University of Chicago Press.
- Vygotsky, L. (1978). Mind in Society. Cambridge, MA: Harvard University Press.
- Wall, C. G. (2017). Bridging Understanding between Preservice Teachers and Diverse Students through Service-Learning. *Teaching Education*, 28(2), 178-193.
- Walsham, G. What is Interpretive Research? [PowerPoint slides]. Retrieved from www.uio.no/.../ifi/INF5740/h04/undervisningsmateriale/Lecture_1.ppt
- Wang, J., Greathouse, B. & Falcinella, V. M. (1997). An empirical assessment of selfesteem enhancement in a CHALLENGE service-learning program. Paper presented at the Annual Meeting of the American Educational Research

- Association, Chicago, IL. (Eric Document Reproduction Service No. ED 410 485).
- Welcome to Katie's Krops. (n.d.) Retrieved October 21, 2017, from http://www.katieskrops.com/
- Weiss, R.S. (1994). Learning from strangers: The art and method of qualitative interviewing. New York, NY: Free Press.
- Weisskirch, R. (2003). Analyzing student journals in a service-learning course. *Academic Exchange Quarterly*, 7(2), 141-145.
- Whitley, M. & Walsh, D. (2014). A framework for the design and implementation of service-learning courses. *Journal of Physical Education, Recreation & Dance*, 85(4), 34-39.
- Wien, C. A. (2008). Toward a "Good-Enough" Theory of Emergent Curriculum. In Emergent Curriculum in the Primary Classroom (pp. 144-161). New York, NY: Teachers College Press.
- Williams, D., & Dixon, P. S. (2013). Impact of garden-based learning on academic outcomes in schools: Synthesis of research between 1990 and 2010. *Review of Educational Research*, 83(2), 211–235.
- Wilson, R., Bradbury, L., & McGlasson. (2015). Integrating Service-Learning Pedagogy for Preservice Elementary Teachers' Science Identity Development. *Journal of Science Teacher Education*. 26(3), 319-340.
- Yin, R. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: Sage Publications

- Yinger, R. (1980). A Study of Teacher Planning. *The Elementary School Journal*, 80(3), 107-127. Retrieved from http://www.jstor.org.pallas2.tcl.sc.edu/stable/1001636
- Young, A. C., Reiser, R. A., & Dick, W. (1998). Do superior teachers employ systematic instructional planning procedures? A descriptive study. *Educational Technology Research and Development*, 46(2), 65–78.
- Zahorik, J. A. (1976). Task for curriculum research. Educational Leadership, 33487-489

APPENDIX A

QUESTIONS FOR KATIE'S KROPS APPLICANTS

Please answer all the following questions (1-15) completely on a separate sheet of paper. For each question, each answer should not be longer than 150 words. Please type and number each of your answers.

Helpful hints: one-word answers do not allow us to get to know you. Take time to answer the questions and help us get to know you as a person. Explain why you would be a great Katie's Krops Grower.

- 1.) Why do you want to start a vegetable garden to feed people in need?
- 2.) How would your community benefit from Katie's Krops Garden?
- 3.) Where will you plant your garden? This can be at your home, your school, church, community center, etc. Please feel free to include a photo of where you would like to plant your garden. If you are planning on growing your garden at a school, community center, church, or another organization you **must** include a letter from a representative of the organization on their letterhead granting you permission to start the garden on their property. If the garden is to be located at a school please also have the letter note that you will have access to the property during the summer.
- 4.) What is the size of the garden you wish to start? Will it be: in the ground, in raised beds, or in planters/pots?
- 5.) If the garden you want to start is not located at your home, how far is the proposed garden from your home? Do you have regular transportation to that location?
- 6.) Is there a water source for the garden (a place that you are able to attach a hose to or an existing in ground sprinkler system)?
- 7.) Who will help start and maintain your garden? List the volunteers and ages of the volunteers. Your volunteers must include a minimum of two adults. Please include contact e-mails or phone numbers for adult volunteers.
- 8.) Where will you donate your harvest? You may list several organizations/places along with addresses, phone numbers, and websites (if possible). If you wish to make direct donations to families in need, please explain how you will find families to donate to. (Note: For food bank donations, some food banks charge families in need for fresh produce. Please check with your food bank on their policies. If your food bank does charge recipients for fresh produce, please select a different organization to donate to for the purposes of this application.)
- 9.) Do you have any experience gardening (it is not required)? If you answered yes, please explain.

- 10.) What do you feel are your personal strengths?
- 11.) What extracurricular activities are you currently involved in throughout the year?
- 12.) Is there anything else you would like to share with us about yourself?
- 13.) Do you have regular access to a computer for reporting?
- 14.) Do you plan on growing your garden for more than one year? If so for how long?
- 15.) How did you hear about Katie's Krops?

APPENDIX B

PARTICIPANT LETTER

August 24, 2015

Dear Teachers,

When I am not teaching here at SES, I am also a grad student. I am currently working on my doctorate in Teaching and Learning at the University of South Carolina. I am interested in working with a few teachers to conduct research for my dissertation. I am looking for teachers that will be using the service learning in their classroom. I hope to gather data on the instructional planning and strategies that are used in the project and personal reflections throughout the year. The ultimate goal of this research is to develop a planning model for teachers using service learning in their classrooms.

The research project is based on observations, written reflections and interviews. Interviews will be conducted four to five times throughout the project, I will come to your classroom and they will last no longer than one hour. I would also need to observe your teaching of the service learning project at least two times, these times will be arranged with you and we will work around your schedule. Participation will be voluntary, but you will need to participate in all parts of the process if you choose to accept. I will be the only one with access to the raw data. Research data will be collected between September 2015 and April 2017. To ensure that data collected cannot be linked back to participants, names and identifiable information will not be included in the final dissertation. Fifty-dollar compensation will be provided once you finish all the expectations for the project.

If you are interested in helping, my contact information is below. I really look forward to being a part of your service learning project and working with you all.

Sincerely, Cory Susanne Miller 203-400-2418 comiller@dorchester2.k12.sc.us

APPENDIX C

INTERVIEW PROTOCOL – INITIAL INTERVIEW

Date of Interview: Time:		
Participant:		

Project: Service-Learning in the classroom

Instructions for Interviewer:

• Welcome participant

Teaching Experience:

Grade Level:

Location:

- Explain and discuss informed consent form Participant signature
- Introduce study/state purpose:

The purpose of this study is to explore and gain insight in to how elementary school teachers use service learning and to examine underlying factors that shape and influence how teachers plan for service learning projects. I am not looking for specific answers, I just want to read your stories and gain insights into your perceptions about your teaching practice. Let's explore your background and the experiences that have influenced you to begin this project.

Focus Question: How do you plan for instruction daily? What is your understanding of Service-Learning? How will you incorporate SL into your classroom?

How do you plan for daily instruction?

What factors contribute to your instructional planning?

How do student ideas/questions contribute to your planning?

How do students learn best? How do you know if your students are learning?

How do you know when to move on to new content?

Have you previously taught content using a garden? If so, how did you plan for that unit? Tell me about your understanding and experience with Service Learning?

What is your goal for this project? For the students, school, and yourself. What do you envision SL looking like in your classroom? How did you prepare for this project? How do you think your students will be impacted by this project? What obstacles and/or advantages if any, do you foresee with this project?

Reflections/Notes: Thank individual for participating in the interview. Assure him or her of confidentiality of responses and additional interviews.

APPENDIX D

INTERVIEW PROTOCOL 2-4

Project: Service-Learning in the classroom

Reflections/Notes

of responses and additional interviews.

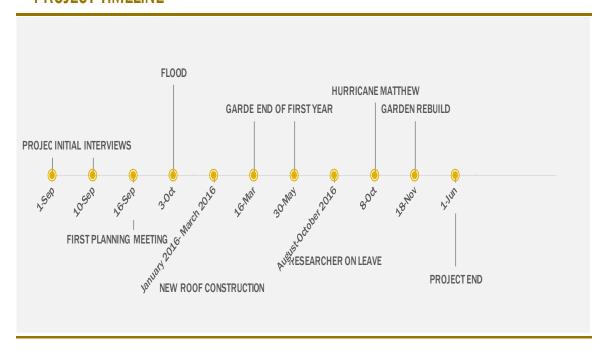
Date of Interview: Time: Participant: Grade Level: Teaching Experience: Location: Instructions for Interviewer: The focus of this interview is to explore your present-day classroom experiences in terms of your garden SL project. Focus Question: What impacts has the garden project had on your understanding of SL and instructional planning? (Probe) Tell me how your project is going. (Probe) What does SL look like in your classroom? (Probe) How are you preparing for day to day teaching, in terms of the project? (Probe) How are you able to use the project to meet state standards? (Probe) What role do the students play in planning and implementing the project? (Probe) What other resources are you using to implement the project? (Probe) How do you perceive the link between your understanding of SL and putting it into practice in the classroom? (Additional questions may be asked after review of documents to clarify/justify interpretation)

Thank individual for participating in the interview. Assure him or her of confidentiality

APPENDIX E

TIMELINE OF STUDY

PROJECT TIMELINE



APPENDIX F

PLANNING MEETING AGENDA TEMPLATE

Grade Level Team Agenda

Date:				
		Attend	lees	
Minutes				
Meeting	Norms:		TEAM Mission Sta	<mark>itement:</mark>
1.				
2. 3.				
3. 4.				
5.				
Wins:				
771110.				
Topic	Person	Action/Pl	an	
	Responsible			
Last Thu	irsday's Reflect	ion:	This Thursday's P	lan:
Parking	Lot:		ı	

APPENDIX G

PLANNING MEETING AGENDA 12/6/16

Grade Level Team Agenda Date: 12-6-16 **Teachers names have been removed

Date: 12-6-		names nave been removed		
Attendees				
Minutes take	by:			
Meeting Norr	ns:	TEAM Mission Statement:		
	e Attitudes	We strive to collaborate		
	g is the purpos			
	prepared with i			
	by 4:00 (if pos	· · · · · · · · · · · · · · · · · · ·		
T. De out	by 4.00 (ii pos	teaching strategies to		
		create leaders and lifelong		
		learners.		
		learners.		
Wins:	Dobovio	Dien etudent has met his neinte		
		or Plan student has met his points		
		Students are getting much better		
at restating f		concerning students has		
made great gains in testing and classroom activities.				
		on: More of a question—Any other		
areas that yo	u would like f	for students to mulch? We have		
completed the garden and put it around that end of the				
building where students will be using the water hose—but				
	re else you w			
	Person	Action/Plan		
	Responsible			
Standards		Math-Reviewing addition and		
		subtraction using word problems		
		Subtraction using word problems		
latter				
after Thanksgiving		Capacity will be in Jan.		
after Thanksgiving				

		ask and answer questions— RACER questions—How did the character change from the beginning of the story to the end? (Grinch) Word study—holiday words Writing Workshop—Writing Process—Opinions/Explanatory Science—Animal habitats and adaptations/Food Chains Social Studies—American Revolution in Jan.
Important dates to remember		Leadership Notebook Chats— Wednesday, Dec. 7 at 9:00am 2 nd grade will be coming to us— will send 2-3 to each 3 rd grade room. Most 2 nd grade classes have about 20 students.
		PTA/Holiday performance— Thursday, Dec. 8—6 pm signed up to represent 3 rd grade
		IG meeting during planning— Thursday, Dec. 8—Any new students we need to discuss? has one for behavior.
		School Holiday performance— Friday, Dec. 9 1:30
Upcoming Events	Teacher Volunteers to lead the project	Any new details? Field Trip to Aquarium—Feb. 16 th . About \$12.00 a student. Permission letters will be sent home on Jan. 25 th and due Thursday, Feb. 9 (one week before the trip)

Service Learning Project— What's next? Onions and kale are planted. Soil will be coming in Wednesday morning. contact her business partner to see about ordering more boxes. We still need to spread and move the will take her class to do that on Wed. morning. We also need to have the kids research other places that would take food donations—Home for **Hope? Churches? Need for** students to create a script as if they would be calling the organization.

Last Thursday's Reflection:

We generated a variety of options for Reading lessons centered on holiday stories. We created RACER TDA questions to go with the story options.

This Thursday's Plan:

IG meetings—New student from for behavior.

Next Thursday's meeting we will be analyzing our latest DRA's to create focus areas for DI when we return in Jan.

APPENDIX H

PLANNING MEETING AGENDA 4/18/17

Grade Level Team Agenda

Date	Date: 4-18-17 **Names of teachers have been removed				
	Attendees				
Minut	tes take by:				
Meeti	ng Norms:	TEAM Mission Statement:			
1.	Positive Attitudes	We strive to collaborate			
2. Sharing is the purpose		daily and weekly on our			
Come prepared with ideas		students, goals,			
4. Be out by 4:00 (if possible)		achievements, and			
	,	teaching strategies to			
		create leaders and lifelong			
	learners.				

Wins: Spring Break was relaxing and rejuvenated us for the testing season. All students CAN succeed.

Concerns for Administration:

Topic	Person Responsible	Action/Plan
Standards		Math-Standards Review
		Reading—Standards Review— Basal Story—Pop's Bridge
		Word study—Homophones with the stem trans-
		Writing- Storytree Theatre—writing plays/skits to go along with Civil War unit and standards
		Science—Electricity and magnetism

Social Studies—Reconstruction and the 20 th Century

Service Learning Chat	Need more soil—Meeting at Home Depot at 11:00am to get more soil. will check about getting a key to the gate so we can drive in and drop it off. will harvest the lettuce, wash it and weigh it so we can tell how much we will donate
Artist in Residence	Schedule: Does this still work for you? I know will need to change one day due to Special Area changes. 7:40-8:40 3E (switch with on Tuesday at 8:40) 8:40-9:40 3A (switch with with on Tuesday at 7:40) 9:40-10:40 3B 11:30-12:30 3C 12:30-1:30 3D
April Snack and Activity	Snack will be on Wednesday, April 19 at the faculty meeting Strawberry shortcakes with whip cream and each bring a 2 liter drink We have generic bowls, small plates, forks, napkins, small Styrofoam cups—make sure to bring a serving spoon for your strawberry stuff. Set up about 1:45 in Library.

		•	v activity—checking on places opy Hour on Friday, April 28
Evening		Thurso	lay, April 20 th 6:00 pm SHS
Expectations			ium—STAR Performer District
coming up		Celebr	
Coming up		CCICDI	ation
		Thurso	lay, April 27 th 6:00 pm PTA
			g and Spring Concert—
		mocun	g and opining content
Last Thursday	's Reflection	n:	This Thursday's Plan:
			Time will be spent working on the GATE spread sheet.
			Be thinking about ideas for Survivor.
Parking Lot:			

APPENDIX I

PLANNING MEETING AGENDA 5/9/17

Grade Level Team Agenda

	Date: 5-9-17 **Teacher names have been removed			
Attendees				
Minutes take	by: April Jeff	ries		
Meeting Norms: 1. Positive Attitudes 2. Sharing is the purpose 3. Come prepared with ideas 4. Be out by 4:00 (if possible)		TEAM Mission We strive to or daily and wee students, goal achievements teaching strat create leaders learners.	collaborate kly on our ils, s, and tegies to	
Wins: Students are doing a fantastic job and excited about the Fashion Show Writing project. Concerns for Administration:				
		Action/Plan		
Topic	Person Responsible	Action	n/Plan	

chapters)

Synonyms

Review—Jake Drake Know-it-All

Word study—Descriptive words—

(two weeks of Reading—11

		Writing- Descriptive writing—focus on Word Choice—Fashion Show final copy and rehearsal Science—Magnetism Social Studies—Turn of the 20 th Century
Science Inventory		We met in the Science Trailer and inventoried kits. Then went inside and did . Only need will input the information and send it electronically to the district.
Service Learning		What needs to be done? Sprinkle flower seeds and see what blooms Watering and weeding schedule— this week—weed twice, water everyday Next week?
Evening Expectations coming up		Thursday, May 18—Retirees reception at SHS 6pm signed up to represent 3 rd grade Thursday, May 18—afterschool—everyone to help set up for the Fashion Show—set up a time with library to go in on Friday to show the kids Tuesday, May 23—Talent Show at SES 6pm signed up to represent 3 rd grade
Fashion Show	Need to switch because of change in Special Area	See New Time Schedule Monday, May 22—Schedule 7:45-9:15 9:30-10:30 11:15-12:15 12:30-1:30

Last Thursday's Reflection:	This Thursday's Plan:
Did not meet due to not having a common planning time because of the Special Area schedule being changed due to testing.	We will not meet as a team because we do not have a common planning time on Thursday due to change in Special Area times because of 5 th grade testing.
Parking Lot:	