Knowledge and skills are of no use if the student cannot apply them in cooperative interaction with other people.

(Johnson, Johnson & Smith, 1991, p. 1:23)

A recent Chronicle of Higher Education special report (Fischer, 2013) noted that “employers say that recent graduates often don’t know how to communicate effectively and struggle with adapting, problem solving and making decisions” (p. 1). These key competencies are part of collaboration – the “process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible” (Gray, 1989, p. 5).

A challenge in higher education is how to give students opportunities to not only collaborate but also to reflect on how collaboration happens, to consider what makes collaboration succeed, and how it can be coaxed forth. One way to offer students this is through experiential or active learning. Experiential learning has been defined as “a) the involvement of learners in concrete activities that enable them to experience what they are learning about and b) the opportunity to reflect on those activities” (Silberman, 2007, p. 8). More specifically this case looks at that experiential component happening within a framework of service-learning, of having students reciprocally meet a community need and learn and apply knowledge. In service-learning students are more than learners, they become asked to make real decisions that will have real effects and have real consequences.

Service-learning experiences require students to become active learners and co-constructors of knowledge. This type of experience can help address critiques of higher education that “complain that many undergraduates … are authority-dependent, passive, irresponsible, overly competitive, and suspicious of their peers” (Bruffee, 1999, xii), a complaint that many employers share. The ability of students to earn a college degree is often not reliant on their abilities to work together; much of the higher educational system requires individual responsibility for passing courses and meeting benchmarks of evaluation. However, most employers will not expect people to sit in rows and compete with colleagues. Collaborative work in groups, teams, departments and divisions is the norm in the world of work.
“characterized by layers of positive interdependence that stretch from the interpersonal to the international” (Johnson, Johnson & Smith, 1991, p. 1:24). Education needs to abandon the notion of assessing who is best at working alone and move to “ensure that classroom experiences realistically reflect the realities” (1:24) of working life. Service-learning requires students to work together to ascertain needs and collaboratively develop strategies to meet these needs. Service-learning is active, unpredictable, and more closely resembles what students will do when their days of taking semester-long courses with carefully planned syllabi are at an end.

Being able to collaborate with others is often idealized but seldom operationalized. How do we teach students to collaborate? How do we communicate to students that collaboration is a vital process in organizational life that helps members within and between organizations think and act together to address issues that know no boundaries? How do we encourage students to practice and to value thinking and acting with others collaboratively?

There have been many approaches under the broad term of service-learning that respond to the need for students to be less passive recipients of education by engaging students in “community service and regular guided reflection on the service in order to deepen learning and enrich communities” (Britt, 2012, p. 80-81). Among the various reasons service-learning is employed is to develop student competence and self-efficacy, emphasizing doing as a way of learning, exploring what it means to exist in relation to others in community, enhancing critical thinking, and engaging students in action that addresses human needs and attempts to address power imbalances. Specifically though, how can service-learning serve to teach and model collaborative skills and habits?

This case considers how a semester-long service-learning project that involved 24 members of a course, served to advance student understanding and experience of the process of collaboration. This retrospective research considers how students learned to both model and shape the conditions and habits needed to promote a collaborative environment.

Collaboration frequently is identified as a hallmark of service-learning. However in reviewing case studies that highlight collaboration, that collaboration is often heralded as a relationship between community partners (Stephenson, Stephenson & Mayes, 2012; Ostrander & Chapin-Hogue, 2011), between global partners (e.g., Dunkel, Shams & George, 2011; Leigh & Clevenger, 2013), and even across courses and disciplines (e.g., Hill & Griswold, 2013; Brown & Chao, 2010). Fewer cases can be found that focus on collaboration as an active, emergent process explicitly taught to students (e.g. Stephenson, Peritore, Webber & Kurzynske, 2013) although notable work occurs in health sciences focusing on interprofessional collaboration (e.g., Bridges, Abel, Carlson, & Tomkowiak, 2011; Kuo, Goebel, Satkamp; Beauchamp, Kurrasch, Smith, Asia, & Maguire, 2013). There is need for more attention on how we teach students to do collaboration.

Collaboration is identified as one of the positive outcomes of service-learning (Jacoby, 1996) however much of the research talks about the impacts of collaboration on parties and on how
collaboration helps students develop skills, but not how to develop the skills and habits of collaboration itself. This pedagogical case study seeks to uncover how engaging students in a service-learning project where students assessed the need for, developed, and facilitated communication-focused training for over 200 Girl Scouts and 40 leaders in a day-long Cookie College, promoted the teaching about and, importantly, the doing of collaboration. Before discussing the case, collaboration as both a pedagogy and practice are explored. Then details about the course and how the research was conducted are offered. Finally, through reflections, both the students and the instructor narrate the retrospective sensemaking about how collaboration was shaped.

**Collaboration as Pedagogy and Practice**

In addition to Gray’s (1989) characterization of collaboration as a way to address a problem with others in a way that goes beyond a limited vision, collaboration has also been described as “a process of value creation that our traditional structures of communication and teamwork can’t achieve” (Schrage, 1995, p. 32). A 2006 review by Lewis of definitions of collaboration highlighted two additional points, that collaboration involves doing or action, and that collaboration cannot occur until a specific type of relationship [reciprocal, equal] exists between participants. For Bedwell, Wildman, DiazGranados, Salazar, Kramer, and Salas (2012), common themes in their multidisciplinary review of the concept of collaboration are captured in the notion that collaboration is “an evolving process whereby two or more social entities actively and reciprocally engage in joint activities aimed at achieving at least one shared goal” (p. 130).

Further delineating interorganizational collaboration, Keyton, Ford and Smith (2008) say it is “a set of communicative processes in which individuals representing multiple organizations or stakeholders engage when working interdependently to address problems outside of the spheres of individuals or organizations working in isolation” (p. 381). Overall, these definitions imply that collaboration is a voluntary, socially-constructed process of joint action with partners who share both status and gains. With this as a working definition of collaboration, a consideration of collaboration as a pedagogical framework is investigated next.

**Collaboration as Pedagogical Framework**

Popularized in late 90s, collaborative learning, also known as cooperative learning, involves engaging “students in pairs or small groups to achieve shared learning goals” (Barkley, Cross, & Major, 2005, p, 4). The underlying assumptions are that intentional design and “co-laboring” are ways to shape meaningful learning. Over two decades ago, Johnson, Johnson and Smith (1991) saw cooperative learning as representing a new paradigm for college teaching that required that instructors not just change attitudes or behaviors related to teaching, but also jettison what they termed the “the wrong map” and chart one’s course by a new one. This paradigm calls for recognition that 1) knowledge is constructed, discovered, transformed and extended by students; 2) students actively construct their own knowledge; 3) faculty effort
should be aimed at developing students’ competencies and talents; 4) education is a personal transaction between faculty and students as they work together; 5) all of the above can only take place within a cooperative context and 6) teaching is a complex application of theory and research that requires considerable instructor training.

Collaborative learning is premised on certain assumptions about learning and learners (Smith & MacGregor, 1992): learning is an active, constructive process; learning depends on rich contexts that require exploration and critical investigation before application of skills can begin; learners are diverse, and; learning is an inherently social process with affective and subjective dimensions that requires students to shift their role from recipient to co-constructor. At the heart of collaborative learning is the idea that “questions, problems, or the challenge to create something drive the group activity” (p. 10). Learning for Smith and MacGregor does not happen in the private internal places in students’ minds, but “unfolds in the most public of ways” (p. 10). This public enfolding occurs as a process; “students and faculty work together to create knowledge ... It is pedagogy that has at its center the assumption that people make meaning together and that the process enriches and enlarges them” (Matthews, 1996, p. 101).

If collaborative learning requires making meaning together, it requires that learning be structured to avoid student dependence on the teacher for subject matter content or group process and instead positions the teacher as “a member of a community in search of knowledge” (Barkley, Cross, & Major, 2005, p. 6). This shift of instructor role also requires a subsequent shift in the roles that students assume. MacGregor (1990) articulates seven shifts in behaviors and expectations for students as they assume the new role of collaborative learner.

**Table 1: Shifting student behaviors and expectations in the collaborative classroom (MacGregor, 1990, p. 25)**

<table>
<thead>
<tr>
<th>Traditional classroom</th>
<th>Collaborative classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shift from …</strong></td>
<td><strong>To …</strong></td>
</tr>
<tr>
<td>Listener, observer, notetaker</td>
<td>Active problem solver, contributor and discussant</td>
</tr>
<tr>
<td>Low or moderate expectations of preparation for the class</td>
<td>High expectations for preparation for the class</td>
</tr>
<tr>
<td>Private presence in the classroom with few or no risks</td>
<td>Public presence with many risks</td>
</tr>
<tr>
<td>Attendance dictated by personal choice</td>
<td>Attendance dictated by community expectations</td>
</tr>
<tr>
<td>Competition with peers</td>
<td>Collaborative work with peers</td>
</tr>
<tr>
<td>Responsibilities and self-definition associated with learning independently</td>
<td>Responsibilities and self-definition associated with learning interdependently</td>
</tr>
<tr>
<td>Seeing teachers and texts as the sole sources of authority and knowledge</td>
<td>Seeing peers, self, and the community as additional and important sources of authority and knowledge</td>
</tr>
</tbody>
</table>
The goal of collaborative learning (Smith & MacGregor, 1992) is for students to be autonomous, articulate thinking people that are willing to disagree and reason together as they search for a path forward in search of creating knowledge, not finding simple, existing answers. Students develop as critical thinkers and push each other to think in more novel ways. Collaborative learning positions learners differently vis-à-vis each other. Johnson, Johnson, and Smith (1991) offer a comparison of three structures and assumptions of student-student interaction. In a competitive structure, students compete against one another for grades or to achieve a goal that few can achieve. In an individualistic structure students are assigned and work toward individual learning goals unconnected to those of other students. In a cooperative structure, students work together to achieve goals and maximize their own and others’ learning.

However, group work is not always collaborative warn Johnson, Johnson, and Smith (1991). “Putting students in groups to learn is not the same as structuring cooperation among students” (p. 1:18). For learning to be cooperative it must have five basic elements: 1) positive interdependence, 2) face-to-face interaction that builds efficacy and confidence, 3) individual accountability, 4) social skills, and 5) continual reflection and processing of group movement toward goals.

As a pedagogical approach, collaborative learning strives to mimic the ways knowledge is produced in the world in a process of social interaction. “Collaborative learning marshals the power of interdependence among peers. Scholars, researchers, businessmen, lawyers, physicians, and countless other professionals all learn collaboratively when they work together on focused problems with no certain resolution” (Bruffee, 1999, p. xii). Thus collaborative learning is about more than an exchange of information, rather it is about producing knowledge together in a social setting with others as activities are engaged in. According to the framework of communities of practice, knowledge is an accumulation of experience engaged in by participants – “a kind of residue of their actions, thinking and conversations – that remains a dynamic part of their ongoing experience” (Wenger, McDermott & Snyder, 2002, p. 8). In collaborative learning situations, students begin to experience the process of legitimate peripheral participation advanced by Lave and Wenger (1991) as situated learners who “gain access to sources of understanding through growing involvement” (p. 37) in a community of practice. Knowing for Lave and Wenger is not something that happens in individuals’ heads, but happens when individuals are increasingly engaged in fulfilling roles in expert performances.

Kuhn and Jackson (2008) advance a similar practice-based alternative to knowledge construction that recognizes that “knowledge is always a part of problem-oriented action ... knowledge is a capacity to act within a situation. A capacity to act depends on one’s being able to make distinctions between the useful and the useless and to effect change in the service of solving problems’ (p. 455). In working together to solve problems students in collaborative learning environments “learn to construct knowledge as it is constructed in the knowledge communities they hope to join after attending colleges and universities; the knowledge
communities of industry, business, finance, government, academic disciplines, and public professions such as medicine, accounting and the law” (Bruffee, 1999, p. xiii). In the case of this class, students were learning to construct and use knowledge as they became novice members of the community of communication training professionals.

**Collaboration as Multiparty Stakeholder Process**

Beyond a pedagogical, peer-to-peer approach to learning, collaboration has a different meaning, one focused on bringing together stakeholders to address issues of mutual concern. Those who work together collaboratively “gather and synthesize information, interpret and decide jointly how to act on it, and take collective responsibility for implementing, monitoring, and evaluating their decisions” (Seibold, 1995, p. 282). This process, similar to collaborative pedagogy, focuses on cooperative rather than competitive behavior. In collaboration those involved, often called stakeholders, “define the problem together, educate each other about the issues, and develop and assess reasonable solutions” (Carpenter & Kennedy, 1988, p. 27).

Collaboration involves collective responsibility and the joint ownership of decisions, meaning that the participants involved in the collaborative process are directly responsible for making decisions. Moreover, during the collaborative process participants negotiate their relationships with each other and structure the socially accepted rules for dealing collectively with a problem (Gray 1989; Rogers and Whetton 1982). Gray (1989) distinguishes five characteristics of multiparty collaboration: (1) interdependent stakeholders; (2) dealing constructively with differences; (3) joint ownership of decisions; (4) collective stakeholder responsibility for the future direction; (5) recognition of collaboration as an emergent process. Collaboration occurs for various reasons; often the impetus is to assist organizations in completing tasks that they would be unable to complete as individual organizations (Butterfield, Reed & Lemak, 2004).

Given these brief overviews of collaboration as a pedagogical approach and collaboration as a multiparty stakeholder process, a case study of the experiences of a service-learning course in the area of Communication Training considers the following:

RQ1: Can involving all students in a service-learning project model and teach collaboration?

RQ2: What pedagogical structures can model, support and teach collaborative skills and habits?

**Retrospective Case Study Methodology**

The following case outlines how involving all students in a single service-learning project offered opportunities to create a collaborative learning environment and reflect on how collaboration emerges and is sustained. The methodology employed in this course is best characterized as a retrospective case study in which “all data, including first-person accounts, are collected after the fact” and “the outcomes of the events and activities are already known” (Street and Ward, 2010, p. 825). In a retrospective case study attention is on after-the-fact...
reconstruction, looking at what variables impacted the outcomes. This methodology seems particularly suited for exploring pedagogy, particularly service-learning pedagogy where unexpected outcomes can occur and being able to reflect on, and consider how to replicate these types of outcomes would be valuable.

One of the criteria of retrospective case studies is that “researchers have access to both first-person accounts and archival data” (Street and Ward, 2010, p. 825), and in the case of pedagogical studies, the instructor has archival data from the course and can collect post-hoc first-person accounts through surveying students and others involved in the learning environment. For this case study, once the outcomes of increased collaboration were evident, I applied for and received IRB approval (Protocol 14-0178) to conduct a survey of students and ask for access to their final course written reflections and other course material. Of the 24 students enrolled in the class, 65% completed the survey and granted access to their course materials. This was significant as all but two of the students graduated from the university at the conclusion of the class and were scattered across the country either working or attending graduate school. The survey was launched six months after the completion of the course, so the responses from students should reflect what they remembered most about the course. Their survey responses were collected anonymously with the survey directing them to a secondary survey in which they offered their name as indication of access to their course materials including their final reflection.

One limitation of retrospective case study methodology can be a spoiler effect which Street and Ward (2010) note happens when the researcher, who already knows the outcomes, “overemphasizes elements of data that support a particular conclusion” (p. 827). To avoid this, I carefully worded emails asking for student participation in the survey and the survey questions themselves to avoid focusing on collaboration. For example, instead of asking students about collaboration I asked a series of both scale-type and open-ended questions about their class experiences including how the course required them to work together as an entire class, the types of communication they had with classmates, the client, etc., their perceived level of accountability to others, how they coordinated their work, and the usefulness of class wiki pages. Of 11 questions, only the tenth mentioned the word collaboration: How would you rank the degree of collaboration with other students and the client/stakeholders required in this course in comparison to other courses that required group work?

My instructor identity as a service-learning advocate and scholar is well known in our department and students likely inferred that I was researching the course related to my interest in this area, rather than looking specifically at collaboration. The email soliciting student participation in the survey identified the purpose of the study as being “to develop a case study about using service-learning projects, projects which involve all students working for the same client and which they are engaged in throughout an entire semester. The study will explore the pedagogy, class practices, and student reflections about this type of learning experience.” In this way, the survey explanation did not lead students to consider the particular outcomes I had already recognized about collaboration.
The Case: A “Sweet” Opportunity to Model and Enact Collaboration

By its very nature, service-learning requires relationships of reciprocity between students and community partners. In the case of this project involving 24 students over a 15-week term, students also had to learn how to collaborate with many stakeholders in developing a training program that would meet the needs of a community nonprofit and its members and respond to specific contextual factors.

The project began when our communication department was contacted by an area Girl Scout council serving a four-county area of the state. The Girl Scout staffer was looking for training to be developed and offered to scouts to support their Girl Scout cookie sales efforts. However, the community partner stressed that the training needed to support key leadership goals for scouts as well and not just be geared toward helping girls increase sales.

This opportunity presented itself in the late summer and I was hesitant to vary from the normal structure of the course; students previously found others in the class with common interests, and formed small groups to identify partners for whom they might deliver communication training. Often these were student or campus organizations or local nonprofits in which students were involved. I recognized the value of being responsive to a real community need, but in tension also recognized that student interest in a project is often a critical factor in the amount of effort they are willing to devote. Thus, I wanted to give students the opportunity to decide together whether the benefits of being able to work through steps of designing and delivering communication-focused training as a whole class would outweigh the lost opportunity of finding projects for which they had a high degree of interest. As an instructor I recognized that for some students the perceptions of developing training for Girl Scouts might not align with their expectations to gain professional experience. The goal of giving them input into this decision was to ensure that all students would buy in and support the project. The conversation and the group’s subsequent decision to take on the single project modeled collaborative best practices. Students not only talked about pros and cons, but shifted the talk to that of a win-win solution. During the class discussion that followed a presentation by the prospective partner, the students recognized the learning benefits of having all class members engaged in and reflecting on the same steps of the process. At the same time they realized that they could design a training event with multiple smaller modules or sessions that students could choose and design to reflect their own interests and skills.

Collaboratively Co-Constructing Goals

The community partner had offered an initial vague sketch of her vision for Cookie College. Her initial ideas included making scouts more confident in their sales efforts and highlighting leadership outcomes of goal setting, decision making, money management, people skills and business ethics. The client enthusiastically supported our plans to reach out to other stakeholders to gain additional perspectives on the need for training and input on what type of support would be most helpful. The students brainstormed a list of stakeholders and then
divided into teams that conducted and collaboratively analyzed and synthesized data from a variety of sources which included:

- the recent historical and economic history of Girl Scout Cookie Sales and contextual/environmental factors influencing the need for training,
- the community agency’s perceptions of the needs and goals for training,
- the perceptions of scouts (solicited during meetings with seven Girl Scout troops of varying ages and levels in the local area), and
- the perceptions and desires for training of troop leaders (collected via a brief survey sent to Troop Leaders in the local area)

By involving these stakeholders in the early research the student teams drew in scouts, leaders, and Girl Scout personnel as collaborators who helped construct a vision of what type of training would be most beneficial. This multi-party stakeholder engagement surfaced important perspectives from the troop leaders who identified areas of training they thought they would also gain from. Given this insight, the training project was expanded to include training for troop leaders and parent volunteers, which was not part of the initial client vision.

**Increasing Student Interdependence and Knowledge Co-Construction**

Once the needs analysis was complete, students went back to the drawing board to consider what type of training design would meet the needs and fit the budget that was allotted for training. Students talked through the data they generated for the needs analysis and began to capture gaps that were evident and themes that were recurring in the qualitative interview data. As they charted these ideas visually, the class organized and reorganized ideas that seemed related until a structure began to emerge. What the group identified were five overarching topics that could be developed into training modules. To allow scouts some flexibility, the training modules would be offered in a repeating schedule during a daylong training event.

Students reflected on this emergent process in a survey question that asked them to identify how the overall vision for Cookie College took shape.

> The entire class worked with their specified population to realize that group's needs and what structure would work best for them. From there, all the students collaborated to help the program come to life.

> I think [the instructor] certainly had the initial vision, but it was the most collaborative effort I have ever seen in a classroom before. Often [the instructor] would have us list ideas and she would help categorize them and make sense of the “think tank” but a lot of it was direct student input.

> The vision took shape slowly as we decided the best fit for the needs of the Girl Scouts and our capabilities as trainers. I feel as though we were always modifying the vision of
what a ‘successful’ training would be. The contact with the client was monumental in helping us, as a class, develop this vision. The client allowed us to better understand what areas the girls would benefit the most from learning. I truly believe if we had not had the level of communication with the client that we did our training would have not have been as successful.

At first, we weren’t really sure how this was all going to unfold. After multiple class discussions, talking with leaders and troops, our vision began to be more clear.

I think that what really made Cookie College take shape was the brainstorming and constant communication between our whole class (including [the instructor]). People would throw their ideas out into the class and [she] would help to make these ideas take form into something that was actually feasible to do. Classmates would feed off of each other’s ideas to help develop them and make them better. We also used past experience from other classes and activities to help develop a plan for making Cookie College a success.

In order to appropriately train scouts, the teams collaborated with Girl Scout staff that had resources, training, and practical wisdom about the developmental and cognitive abilities of different ages of scouts. Students also gained a sense of this first hand when they went to scout meetings in the area to gather data. Class members talked with scouts about their experiences, successes and challenges of cookie sales. Troop leaders also engaged collaboratively with the class members by asking if the students would develop some icebreaker activities to do with the scouts when they attended meetings. This helped class members begin to construct, from experience, knowledge of what scouts were capable of and how they would likely engage in training activities given their age.

Once the class identified five training topics for scouts and two for leaders, the real collaborative work within the class started to occur. For the training event to be cohesive, student teams had to develop plans for their training module but keep co-constructing the larger context of a training event with overall holistic training goals. Student teams had to avoid duplicating specific skill training, and work interdependently to consider how the training modules could be dovetailed to support and reinforce key ideas. Practically the teams also had to consider how to creatively stretch a small budget for supplies by borrowing some supplies and sharing all of the supplies across simultaneously scheduled workshops.

The students presented the draft plans for Cookie College to our client who brought her counterparts from others scouting regions; the scouting organization planned to duplicate similar efforts across the state using the model the class developed. In this way, we ensured that all parties supported the goals and the methods designed to reach the goals.
Carefully Structuring Collaboration

As the research on collaborative learning attests, collaborative pedagogy requires intentional structure to undergird student acceptance of their role as a contributor to collaboration. Several ways the course offered this type of intentional design was in the use of wikis or collaboratively-generated documents that allowed students to gather and share information throughout the process. Overall, we created four wiki pages in the class through our course management software system, Blackboard. The first was a wiki for reporting on the research about the need for the training. This was the most collaboratively developed of the pages. Sixteen discrete users (out of 24 possible) contributed or edited this page. This page served as a repository of stakeholder perspectives and data collected during the needs analysis. Through having groups complete their research and post the raw data and then collaboratively write a summary of their findings, each group gained insight into all of the perspectives gathered. It also allowed for the class to draft and then finalize the formal needs assessment simply by compiling and organizing all of the summaries in the wiki. This collaborative process offered all students insight into the important contextual factors that would be relevant in developing training and the perceptions about what would be useful in order to develop overall goals for the training and develop each module to be responsive to this analysis.

In addition, we captured ideas and plans collaboratively developed in class and stored this information as wiki pages for both reference and revision in future class sessions. One wiki highlighted overall training goals, one was a continually updated and revised Master Plan, and the third was our Final Checklist for the event. These three wikis served more as digital whiteboards that tracked our thinking and planning, capturing ideas in real time and allowing those ideas to be visible, revisited, and revised. Several students took turns capturing the ideas being generated on the board and typing them in a wiki planning document as the discussion unfolded. Then students edited and organized the information into areas of responsibility. These documents were able to be updated by any member of the class as information was collected and as planning and logistical tasks were completed.

In her study about the benefits of wikis in teaching, Walsh (2010) noted that students and instructors believed that wikis improved collaboration, but fell short of the desired goal of decreasing student reliance on the instructor as the authoritarian source of information. However, in Walsh’s study, the wikis were designed to facilitate collaboratively written final products, whereas in our class, the wikis served to increase student responsibility by being a repository of important resources that students were expected to use to shape their ongoing efforts. My students offered these reflections on using the wiki pages, highlighting their value as reference tools that enabled work to continue beyond the walls of the classroom. “The wiki kept everything in one place for us. Even when meeting outside of class we still had all of the resources we needed.” Many talked about how the wiki pages helped them to connect the steps of the project and “utilize the research that had been done in the beginning of the project as a resource in helping us to create a training that would benefit the Girl Scouts in the biggest way” and allow “everyone to see what was and what needed to be completed.”
The Collaborative Benefits of Service-Learning

The wiki pages offered a “large class forum that allowed us to communicate, which was specifically helpful because we only met once a week.” Students noted how this tool “allowed everyone to be on the same page throughout the week” and “remember what was discussed and how to move forward.” Specifically one student noted that being able to access all of the plans for each team was valuable; “each module/group could see what other people in the class were planning, so that all the modules built on each other, rather than overlapping.”

While most acknowledged the value of the wiki pages as reference tools, some saw them less as active tools for collaboration and more as a mirror of the face-to-face collaboration. “I preferred to talk about developments more than read about them, but it was helpful to have the wiki to refer back to when working outside of class.” “I would typically wait until class to hear updates from the other teams, but I definitely should have utilized Wiki more - definitely a valuable resource.” For many the wiki seemed more of a failsafe that was there but not crucial. As one student phrased it, “I was already confident with my classmates. [The wikis] were a nice reference and very useful.” So while the wikis were one tool that supported collaboration in certain ways, students came to rely on time in class to work with, report to, and develop ideas with one another. In students’ views, this space was where collaboration happened which will be furthered explored in the discussion section.

Discussion and Implications

In this course in the past, students have formed small teams to find and work on a variety of training projects for multiple clients/community partners simultaneously. Although it was originally daunting for me to consider managing one large training event that required committing significant class time to “doing” collaboration, this project offered rich learning opportunities. If students had been working in small teams on individual projects we would have missed this opportunity for interdependence between teams and for co-construction of a collaborative vision that this larger project afforded. We would have missed the peer learning that is possible when all students are simultaneously working through and reflecting on the steps of researching and designing training. The rich and messy collaborative workdays in the class replaced the former workdays where teams would sit and make “their” plans for “their training” in relative isolation. The single-project approach in many ways forced some level of collaboration as resources had to be shared and information from a wide array of stakeholders had to be assessed. In doing a single project, each module team became a partner in collaboration and the needs of all partners had to be considered in order to strive for mutually beneficial outcomes.

What was gained in this single-project approach was an opportunity for students to model and experience collaboration and shape the processes that most enabled them to “do” collaboration. The project helped students to experience Gray’s (1989) definition of collaboration as they engaged in the process of seeing different aspects of a problem, constructively exploring their differences, and searching for solutions beyond what they initially
thought possible. For our region's Girl Scouts in December of 2012, the reality of Cookie College training for over 200 scouts and 40 leaders went well beyond the initial possibilities imagined. The vision that emerged instead was co-constructed by multiple stakeholders and brought to life in a collaborative learning environment.

In looking back at the course retrospectively, knowledge about what structures and tools helped this to happen emerged from both practice and a reflection on that practice. Three critical elements emerged: The instructor and student roles, using a significant portion of class time to model and allow for collaboration to occur, and setting high expectations and offering both encouragement and a safety net.

**Instructor as guide and co-learner**

In order to provide students with time to collaborate this class prioritized Dewey's notion of learning through doing. Dewey (1938) saw experience as an important teacher because students could reflect on it, think critically about how knowledge and skills are used to address problems in the world, and apply the knowledge learned from such experience to new contexts. In the course, traditional methods of content delivery were minimal and even then were often done by students. Student teams researched and “trained” their peers on different theories and skills of the training process to allow for students to experience how training is designed to meet targeted needs and allow participants to put knowledge or skills to use. In a train-the-trainer format, student teams trained their peers on important training approaches and then had their peers solidify the learning or skills by engaging in activities that applied the information and skills to Cookie College.

In most collaborative or cooperative learning, instructors shift their roles from delivering information and being the source or knowledge to becoming a guide on the side whose role is not “covering material for the students, it’s uncovering the material with the students” (Johnson and Johnson, 2009, p. 479.) In these types of learning environments, Johnson and Johnson offer that the instructor’s role consists of planning and making some initial decisions about the course, explaining the course and the structure, monitoring learning and the groups, deciding when and how to intervene to help students improve the process or the product, and then assessing learning.

My role was consistent with Johnson and Johnson's characteristics, but I would also add that I was a co-learner with the students, which is an important component of collaborative pedagogy (Barkley, Cross, and Major, 2005; Matthews, 1996). One student commented on the survey that “I think [the instructor] certainly had the initial vision” which may have seemed the case to this student but was not so in reality. The vision for the structure and goals of Cookie College emerged in the classroom discussion as we reviewed the research and input from stakeholders from the needs analysis. I simply helped students to group their ideas and find common themes. During that class session when we began to shape a vision, I was at the board capturing ideas and thoughts. We engaged in constant revision and negotiation, adding and deleting ideas as new perspectives were shared.
In terms of identifying times for intervention, I can recall doing this when we were beginning to plan the spatial logistics. We used a campus facility and students were completing room diagrams to indicate how the rooms should be set up by the facility coordinator. However, I saw that students were struggling with visualizing the space and how to best use it to meet their needs. I scheduled the next week’s class in the meeting facility and had a facility person on hand to answer their questions as they toured the space and took photos and notes about each room. This allowed several groups to recognize that they needed a different type of space for their training activities and to work together to coordinate our needs.

Employing active learning pedagogy requires a shift not only in what the instructor does, but in the expectations for what students will do. In active learning spaces “the professor's role is to facilitate students' interaction with the material and with each other in their knowledge-producing endeavor” (King, 1993, p. 31). King goes on to say that the student is like a sculptor who melds new information with prior knowledge and experience to respond to new situations and needs. In essence in active learning students not only learn information but how to use it pronoetically or with practical wisdom (Aristotle, 2004). Students narrated a sense of this practical wisdom in their final course reflections asking “What skills are you most aware of developing throughout your time as a Trainer in Training?” The most common theme across all responses was the ability to be flexible, to adapt to meet needs, and to “think on my feet.”

In reflecting on the training experience, one student discussed some challenges presented by apathetic participants in her first session and how she and her partner were “able to adapt the training to fit our second group which went much smoother.” Another student reflected on this need for flexibility and adaptation when they recognized that their activity was causing anxiety for the scouts. “We were able to tweak our training so both the younger and older girls would become less anxious standing up in front of their peers.” Yet another told how she and her partner quickly adapted a powerpoint and activity when they realized they had over-estimated the math skills of one age of scouts. Over and over again, students highlighted examples of adapting in the moment to ensure the training was both usable and useful to the scouts. One student recognized the futility of “trying to tug an activity through a pile of mud just so you can stick to plan.” Instead students articulated responding with wisdom and an internalized knowledge of the training process.

**Use class time to model and encourage active collaboration**

In the survey, students were asked to compare their initial expectations and actual experiences about the level of challenge the course would present and their ability to coordinate and work well with classmates (The first and last survey questions). It seems telling that the average (1-10, low to high) of their expected level of challenge was initially 3.92 whereas they ranked their actual level of challenge as 7.0. Even more extreme was the difference in their expectations of being able to work well with others (3.5) to their actual assessment of how well they coordinated and worked well with classmates (9.33). One reason for this might be evident in several students’ responses to a question that asked them about how they coordinated work with others and what tools helped them coordinate.
I believe that the biggest help in the course was the amount of time we had to work on the project in class. This allowed us to collaborate with other groups and ask any questions that presented themselves.

Class time in which we could work with our module group/partner was the most helpful ‘tool’.

Having class time to work with our group members was very beneficial. The time was allotted throughout the course which allowed us to focus on smaller parts of the project at a time. Meeting during class was important since each groups’ part was a smaller part of the big picture. Since we were all in one room we could collaborate and grow our ideas together in an efficient way.

I think it was really helpful that the class was broken down into groups to develop each segment of Cookie College. Those small groups would meet separately, and then after those smaller meetings the whole class would come together to make sure that the modules were not overlapping in content.

This classroom structure of allowing time for individual groups to work and develop their individual training modules punctuated with sessions where all groups shared their plans, challenges, and questions modeled a hermeneutic approach, moving students back and forth from the parts to the whole. This space to do the work of collaboration was a critical factor in the outcomes of the project and in the students’ attitudes toward working with others to develop and meet goals.

Provide encouragement and a safety net
Finally, supporting collaboration requires that we set high expectations for students and help them reach them. When we ask students to go out on a limb, the best thing we can do is communicate that we know students can succeed even when they will meet challenges, and be there ready to help them find sure footing when they slip. The authentic nature of service-learning highlights this challenge for students by promoting real problem solving under real conditions with real consequences (Cyphert, 2006; Quintanilla & Wahl, 2005; Schine, 1999). Instructors need to present the challenge, shape a creative and collaborative environment, get out of the way to let students engage each other and show what they are capable of, monitor what is happening, offer reassurance, and know when to deploy the safety net.

Students talked about the sense of support they felt in the course and highlighted the tensions between the excitement and challenge of engaging in something new and unknown.

[The instructor] did an excellent job of explaining what the semester would entail. This made me both confident and cautious at the same time. I knew it would be a large undertaking and require a lot of time; however [the instructor’s] enthusiasm is contagious and made the class feel more at-ease with the project.
I was a little nervous coming into this assignment, as working with groups can often be challenging. In other classes, I had experienced group members not showing up to things or failing to do their share of the work. However, once I realized how enthusiastic and willing to participate this class was, I became excited and confident that we would be successful in this project.

In comparing this service-learning class with previous service-learning classes one student noted that “this was a bit more challenging because there were multiple groups retaining different information and it forced us to trust them on the information they retrieved. This was harder to communicate because we had to communicate between our small groups then to the whole class to say what we found to help reach the end goal. I believe this was very beneficial because it helped me see how this could relate to a business.” Others remarked about how it was in the challenges that it was possible to come together. “As a team we tackled challenges, faced frustration, and, ultimately, became a cohesive, well-oiled group of people enthusiastically working toward one goal.”

Limitations and ongoing questions
Clearly one case study cannot serve as an authoritative call to argue for a single way to model and teach collaboration, but what it can offer is insight into some of the structures and processes that allowed collaboration to flourish when engaging all students in a service-learning project. In addition, this study is limited by the fact that a focus on collaboration was not identified and researched in real time throughout the course, relying instead on retrospective sense-making and reconstruction. However, if we are to continue to adapt our pedagogy to recognize opportunities to give students the kinds of skills and habits of mind that will aid them in working with others in organizations and communities, we must be open to these opportunities for reflexivity, reflecting on our pedagogical practices with a goal toward improving these practices.

This study also lacks some of the voices that would have added insight about how this collaboration occurred with stakeholders and partners. Future studies should seek a more complete view of the collaborative process both within and spanning the class and the community. However, this case does offer us an opportunity to add some lessons gained from experience to what we already know about collaborative pedagogy and the process of collaboration.

One area that would be rich for future inquiry is how time can be made available for doing collaboration in courses that seek to model and teach it. In this course, much of the content could be learned by doing, but that may not be the case in all classes. One possibility is to consider how the movement toward flipped classrooms might create this space. In research on the benefits of a flipped classroom, Roehl, Reddy & Shannon (2013) found that “a flipped classroom allows teachers greater insight into students’ grasp of information and learning as a result of increased student/teacher interaction. The time gained by removing the lecture
portion from class allows for more one-on-one personal engagement between the teacher and students” (p. 47) which would allow for more time to shape collaboration.

**Conclusion**

In reflecting on and researching this case to consider why and how this type of project can offer a successful experience in both doing and teaching collaboration, this case study adds to what is known about supporting collaborating by recognizing three practices that can help shape collaboration. Its seems crucial for an instructor to be not at the front of the class, but working alongside students to create a vision that is responsive to the needs of not only the community partner, but all those who are stakeholders. Not only must the instructor shift his or her role, but what happens during class time must also reflect a commitment to collaboration. Collaboration needs time and space to happen and requiring students to create this time and space outside of the classroom does not allow students to see and reflect on how collaborative processes happen and what allows them to emerge. And finally, students need to sense an authentic challenge and perceive the sideline support of the instructor who is willing to intervene when necessary but allows students the freedom to explore and create together. When these elements are fostered students begin to see the whole, and sense the role they play in a truly collaborative effort. In a collaborative spirit, I will give the final word on the case of Cookie College as an opportunity to model and teach collaboration through service-learning to one of my students: “Cookie College came together through hard work in the classroom and among module teams and partners. Although we may have been motivated by grades initially, due to the visits from the [community partner] and [the instructor’s] enthusiasm and encouragement, we all internalized the vision of Cookie College as a truly useful, fun experience for the scouts, and became intrinsically motivated to provide the best training we were able to give.”

**References**


