

**EXAMINING 21ST-CENTURY SKILL ACQUISITION AS A RESULT OF  
DEMOCRATIC ENGAGEMENT WITHIN A SIDE-BY-SIDE  
COMMUNITY-BASED LEARNING COURSE**

by

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A dissertation submitted in partial fulfillment of

the requirements for the degree of

Doctor of Education

Field of Educational Leadership and Management

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## **Abstract**

### **Examining 21st-Century Skill Acquisition as a Result of Democratic Engagement within a Side-by-Side Community-Based Learning Course**

Cyndi Reed Rickards

Chairperson: Kristen Betts

Institutions of higher education have a longstanding commitment to democratic engagement and civic learning. This commitment is most apparent in institutional missions, visions, and strategic plans as well as cocurricular programs that emphasize civic engagement, experience with diverse populations, a responsiveness to globalization, and transferrable skills. According to a national report published by the American Association of Colleges & Universities (2012), educators need to ensure all students are qualified with the skills to succeed in work and life in the global economy. As part of Drexel University's commitment to democratic engagement, civic learning, and 21st-century skills, the university introduced the Side-by-Side community-based learning format in 2012. This high-impact course format brings together traditional Drexel students and disenfranchised community students from the surrounding West Philadelphia neighborhood as equal participants in postsecondary courses. Although the courses have received high course evaluations, there has been no formal research on this course format. Therefore, the purpose of

this study is to examine the acquisition of essential 21st-century skills as a result of the Side-by-Side course format. A study of the National Student Survey of Engagement (NSSE) and a priori code analysis of student pair interviews and course presentation videos combine into a convergent mixed-methods study to examine the acquisition of 21st-century skills as a result of this unique learning model. The skill and engagement composite scores did not demonstrate any significant change; however, responses to 12 individual questions registered statistically significant change from the beginning to the end of the course. Students who completed the Introduction to Civic Engagement course demonstrated an increase in global perspective and greater engagement. Additionally, of all four 21st-century skills and engagement were prominent throughout the video and interview data. Implications of this study include the value of the NSSE instrument in the evaluation of community-based learning courses and 21st-century skills, as well as empirical support for providing scaffolding for civic learning. Evidence from the study may support the growth of a national Side-by-Side course pedagogy, which serves as an instructional model that democratically engages students across disciplines.

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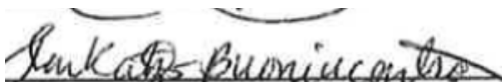
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**EXAMINING 21st-CENTURY SKILL ACQUISITION AS A RESULT OF  
DEMOCRATIC ENGAGEMENT WITHIN A SIDE-BY-SIDE COMMUNITY-BASED  
LEARNING COURSE**

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## DEDICATIONS

This dissertation is gratefully dedicated to my family in appreciation of their unwavering support and encouragement, and to the faculty and students, both university and community, who have allowed me to share in their learning.

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## Chapter 1: Introduction to the Research

### Introduction to the Problem

Mission and vision statements for institutions of higher education have long reflected civic learning and democratic engagement. There is renewed dedication to such engagement as leaders articulate an interest in a civic enterprise while providing the education of community-based entrepreneurship in American students (Harkavy & Hodges, 2012; Ostrander, 2004). As shared in the report *A Crucible Moment: College Learning & Democracy's Future*, the conversation in higher education has shifted, moving from a focus on what students know to a focus on whether students know how to think and providing the skills needed for living and working in the 21st century (American Association of Colleges & Universities, 2012). However, this conversation is not without debate. Liberal arts educators question the role of the provider of job skills versus the traditional role of discipline-based knowledge expert.

Technological growth and globalization have changed the nation's economy. The innovative and highly-connected world is "flat" and therefore requires people to navigate both technology and globalization in addition to acquiring 21st-century skills (Friedman, 2006). The Association for American Colleges and Universities (AAC&U) provides a clear overview of 21st-century education:

As we move into a turbulent century, our nation's democracy and our interdependent global community require a more informed, engaged, and socially responsible citizenry. Both educators and employers agree that personal and social responsibilities are core elements of a 21st-century education. Moreover, the AAC&U's recent survey of its members' confirms that many institutions are placing more emphasis on civic education



by developing innovative educational practices that advance learning outcomes essential for responsible citizenship, at home and abroad. (2014, para. 1)

With technology and globalization becoming increasingly pervasive, Kenworthy and DiPadova-Stocks (2010) write, "Society is in a time of rapid change and connectedness and therefore we must graduate students who can deal productively with such uncertainty and can learn new knowledge about situations from actual people in those situations" (p. 174). Higher education must reconceptualize the notion of education and global citizenship as we move forward in a world where local, regional, national, and international connectedness intersects with social, economic, and technological pressures (Kenworthy and DiPadova-Stocks, p. 174).

In the age of assessment, evaluation, and accreditation, educational institutions often require faculty members to clearly articulate, map, and prove their students' mastery of course content. Acedo and Hughes (2014) contend that for curriculum to be transformational, course design must first define the purpose of curriculum. They stress the need for a coherent worldwide understanding of what "curriculum" is and what its intended role in education is. Only then may courses "focus on learning as the cornerstone of curriculum, before turning to the guiding principles that should guide curricula in the 21st century" (p. 503).

Knowledge is arguably more specialized, and therefore students must have new skills to be successful in the 21st century (Binkely, Erstad, Herman, Razen, Ripley Miller-Ricci, & Rumble, 2012). Additionally, institutions of higher education must develop a way to provide students with marketable skills for the new global workforce (Colbert, 2005). However, recent studies have indicated that graduating American college students do not possess required 21st-century leadership skills (Boyels, 2012, p. 34). Curriculum design generally meets content-

specific external review criteria but leaves little room for 21st-century skills, civic learning, or non-academic objectives.

Binkely et al. (2012) explain that knowledge is becoming more specialized and technology is transforming the nature of work. Therefore, students need 21st-century skills to succeed in our global economy. Binkely et al. (2012) claim:

[Student] success lies in being able to communicate, share, and use information to solve complex problems, in being able to adapt and innovate in response to new demands and changing circumstances, in being able to marshal and expand the power of technology to create new knowledge, and in expanding human capacity and productivity. (p. 17)

Furthermore, institutions of higher education must develop student skills that are marketable in a global 21st-century economy (Cobert, 2005). Boyles (2012) holds that:

[W]ithin our new global economy there is an opportunity for careers to emerge that will cause existing companies to hire employees with higher-level skills in order to successfully compete. The increased demand for a highly skilled 21st century workforce has contributed to the rising importance of obtaining a college education. However, recent studies indicate that newly hired college graduates do not excel in these higher-level knowledge and information based skills at the level that employer's desire. (p. 34)

Institutions of higher education are poised to shape education, skills, civic learning, and democratic engagement collaboratively with workforce leaders and community partners.

There is limited evaluation of how 21st-century skills integrate into curriculum and allow for assessment. Darling-Hammond (2012) explains that internationally, global curriculum, instruction, and assessment reform attempted to better prepare primary school children for the demands of life and work associated with higher education (p. 301). However, the evaluation of

such efforts is limited in curriculum assessment. The Program in International Student Assessment (PISA) captures interest in such skills. Current primary-level standardized tests explicitly capture a number of 21st-century skills. Through assessment, educators ask what students can do with what they learned (Darling-Hammond & Adamson, 2010). Such skills are increasingly emphasized in many national assessments as well as international assessments (Darling-Hammond, 2012, p. 302). Institutions of higher education often rely upon faculty assessment autonomy and do not require such standardization.

This study examined Drexel University's Side-by-Side Community-Based Learning courses offered in the spring 2015 term. Side-by-Side courses have a unique community-based learning course format that brings together traditional university college students with community members in a collaborative full-term course experience. In alignment with the National Survey of Student Engagement's (NSSE's) category of a *high-impact practice* (Kuh, 2008a), the Side-by-Side course format recognizes that students, the community, and the university offer a unique perspective and knowledgebase. The Side-by-Side Community-Based Learning format addresses larger social inequalities or issues of injustice. Thus, this course format creates a space for learning with students who otherwise may not have had an opportunity to learn together.

### **Statement of the Problem**

Within the United States, there is great concern about the country's weak civic health (AAC&U, 2012). Educators must make civic learning and democratic engagement a national priority for the country's institutions given that workplace, jobs, and skill demands are changing. Today every student, whether he or she plans to go directly into the workforce or on to a four-year college or trade school, requires 21st-century skills to succeed; therefore, educators need to

ensure all students are qualified to succeed in work and life in the global economy (AAC&U, 2012). Consequently, higher education institutions and the workforce have begun articulating and implementing goals for 21st-century success. However, course pedagogy often neither integrates nor aligns with the macro-level university goals of democratic engagement and provision of 21st-century skills. Therefore, the present study sought to determine whether the intentional democratic engagement within community-based learning courses increase students' development of 21st-century skills. In addition, findings may inform course sequencing and engagement opportunities within an undergraduate student's career that may increase acquisition of such skills and encourage civic engagement.

### **Purpose and Significance of the Problem**

The purpose of this study was to examine the acquisition of 21st-century skills within a community-based learning course, specifically, Drexel University's Side-by-Side Community-Based Learning Courses offered during the spring 2015 term. Course evaluations traditionally assess student opinion and academic course content achievement and subsequently neglect to assess whether larger university goals of 21st-century skills emerge. Institutional data does not represent students' abilities to transfer their understandings to real-world situations. This study used the National Student Survey of Engagement (NSSE) survey to measure the acquisition of 21st-century skills in four topical modules. These modules are short sets of questions covering: (1) experiences with diverse populations, (2) transferable skills, (3) civic engagement, (4) global perspectives, and (5) course engagement. Additional qualitative data will discern unique course experiences and student perspectives.

This study is significant in that it piloted the use of the NSSE topical module survey tool within a community-based learning course. Additionally, data resulting from this study now

provides institutions with information useful for aligning larger university goals of civic learning and democratic engagement with course curriculum and academic experience. Drexel University's Side-by-Side courses bring campus-enrolled and community students together as classmates in postsecondary courses. These courses are built around dialogue, collaboration, and experiential learning that challenge faculty and students to address social justice issues inherent in community-based work including the intersections of race, class, and gender (Davis & Roswell, 2013). These high-impact practice courses often require more faculty time for curriculum design. Additionally, nonpaying community students hold half of the student enrollment seats, and therefore courses are not financially advantageous to universities.

Research that can demonstrate civic learning and 21st-century skill outcomes, in addition to academic learning objectives, are necessary to support future development of community based-learning courses such as Side-by-Side. Institutions of higher education are developing initiatives for increasing students' levels of local and global civic engagement. This study demonstrates that the alignment and integration of civic learning and 21st-century skills in Drexel University's Side-by-Side course format provides an academic opportunity to achieve course and institutional objectives. This study provides an opportunity to assess an innovative community-based learning course format not currently represented in the literature.

### **Research Questions**

This study examined the acquisition of 21st-century skills within a Side-by-Side community-based learning course through both quantitative and qualitative methods. There were three research questions for this study.

Quantitative Question:

1. How do student 21st-century skills (i.e., experience with diversity, global perspectives, civic engagement, transferable skills, and course engagement), as measured by the National Survey of Student Engagement survey tool, change within a Side-by-Side course during the 10-week term?

Qualitative Questions:

2. How do Side-by-Side community student and Drexel student pairs describe their learning in areas of 21st-century skills (i.e., experience with diversity, global perspectives, civic engagement, transferable skills, and course engagement) within a Side-by-Side course?
3. What evidence of 21st-century skills (i.e., experience with diversity, global perspectives, civic engagement, transferable skills, and course engagement) is demonstrated in a Side-by-Side recorded video of the final assignment course presentation during the last week of the term?

## **The Conceptual Framework**

### **Researcher Stances and Experiential Base**

This study assumed both a postpositivism and an advocacy/participatory knowledge claim, and it will, therefore, utilize both an empirical measurement and qualitative methodology to support future change-oriented research applications. The postpositivism claim within this study assumed that while the researcher cannot be positive about claims of knowledge, determining effects and human behavior outcomes are possible. Therefore metrics for 21st-century skills assessments and course engagement assessments were utilized within the study (Creswell, 2013; Phillips & Burbules, 2000).

In recognition of quantitative strategy limitations, a qualitative approach was necessary to neutralize survey biases or limitations. A constructivist perspective or knowledge claim recognizes that there are multiple meanings of individual experiences, which are socially and historically constructed. The advocacy/participatory perspective in the present research sought to utilize strategies to elicit emerging data within the Drexel University Side-by-Side course experience (Creswell, 2013).

### **Conceptual Framework**

There are three distinct components integrated within Drexel University's Side-by-Side course format, and these informed this study. These included (a) 21st-century skills as defined and measured by the NSSE, (b) a framework for 21st-century civic learning and democratic engagement as articulated by the AAC&U, (c) course engagement as defined by the AAC&U and NSSE, and (d) high-impact practices and experiential learning within higher education.

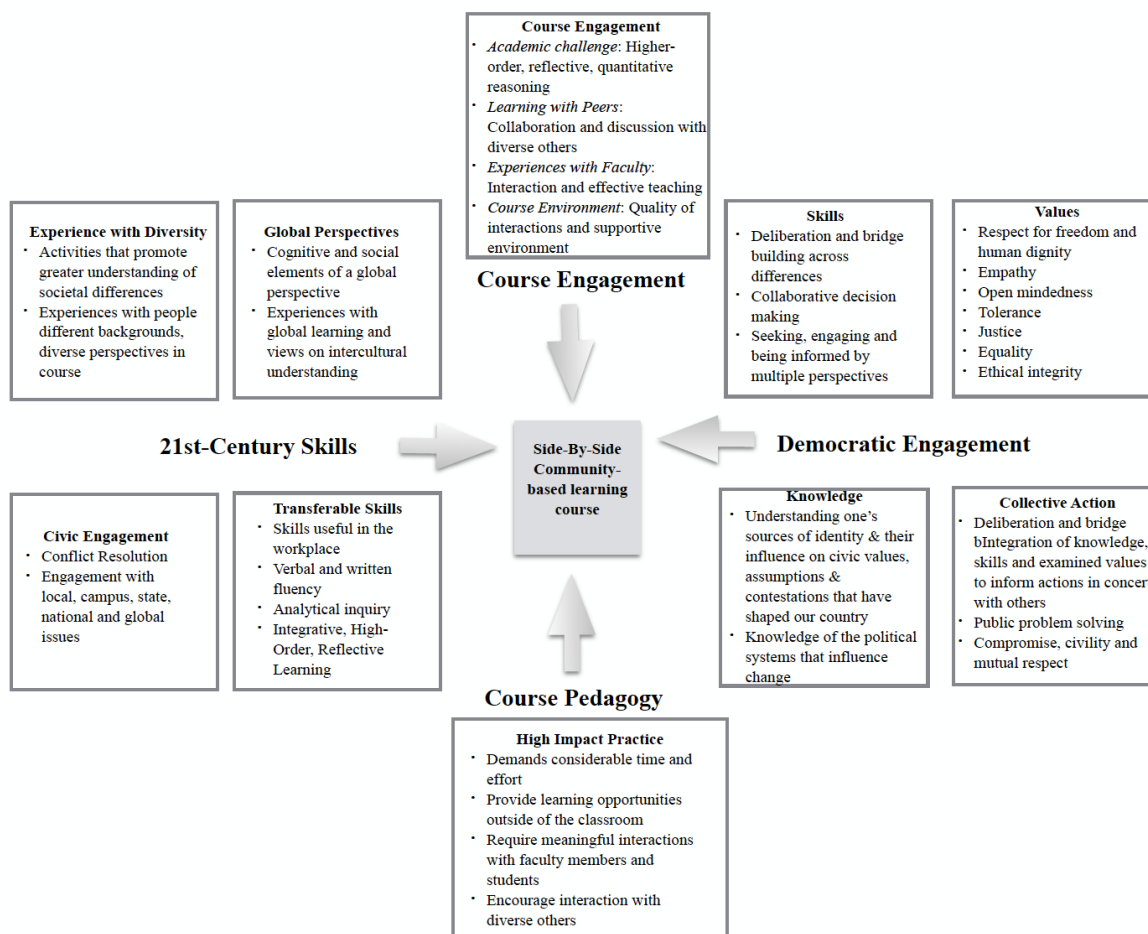


Figure 1. Conceptual framework

## Definition of Terms

### Community-based learning

AAC&U (2012) defines community-based learning as:

A course-based educational experience in which students participate in an organized service activity and reflect on the experience in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of personal values and civic responsibility (para. 1).



### **Drexel University's Side-by-Side Course Format**

Side-by-Side is a community-based learning course format that is an evolution of the Inside-Out Prison Exchange Program. The Inside-Out Prison Exchange Program is an international initiative directed at transforming thinking about crime and justice. The Inside-Out Prison Exchange Program brings campus-enrolled and incarcerated students together as classmates in postsecondary courses built around dialogue, collaboration, and experiential learning. In 2010, a cohort of Drexel faculty, staff, and community partners attended an Inside-Out specialized training and agreed to pilot a shared course learning experience for disenfranchised community members and traditional undergraduate Drexel students. Side-by-Side courses recognize that all students, community members, and Drexel University faculty members offer a unique perspective and knowledge base. These courses create an educational space with students who otherwise may not have had an opportunity to learn together. This collaborative learning course format often addresses larger social inequalities or issues of injustice.

### **21st- Century Skills**

Twenty-first-century skills are broadly defined as skills required to succeed in the contemporary workforce. The Partnership for 21st Century Skills (p. 21) define the following skills:

- 21st-century content—global awareness, entrepreneurial literacy, civic literacy, health and wellness awareness;

- Learning and thinking skills—critical-thinking and problem-solving skills, creativity and innovation skills, collaboration skills, contextual learning skills, and information and media literacy;
- Information and communication technology; and
- Life skills—leadership, ethics, accountability, personal productivity, people skills, self-direction, social responsibility (Dede, 2010, p. 5).

For the purpose of the present study, four measures defined by the NSSE (2014) and AAC&U (2012) include:

- *Global Perspective*: A worldview including cognitive and social elements of global views and intercultural understanding (NSSE, 2014, para, 11).
- *Civic Engagement*: Working to make a difference in the public life of our communities and developing the combination of knowledge, skills, values, and motivation to make that difference. It means promoting the quality of life in a community, through both political and non-political processes. In addition, civic engagement encompasses actions wherein individuals participate in activities of personal and public concern that are both individually life-enriching and socially beneficial to the community (“ACrucible Moment:College Learning & Democracy’s Future”, 2012).
- *Experiences with Diverse Populations*: Encounters that promote a greater understanding of societal differences and with people from different backgrounds and cultures (NSSE, 2014, para, 6).

- *Transferable Skills*: Activities that develop useful knowledge that can be passed on for competence in the workplace (i.e. verbal or written fluency, analytic inquiry, etc.) (NSSE, 2014, para, 5).

### **Course Engagement**

An understanding and disposition a student builds toward the curriculum and co-curriculum, involving making simple connections among ideas and experiences and synthesizing and transferring learning to new complex situations within and beyond the campus (AAC&U, 2014). Additionally, in 2014 NSSE identified engagement indicators which include the following themes: academic challenge, learning with peers, experiences with faculty and campus environment (NSSE, 2014). In this study, the quality of interaction and supportive environment was adapted to define the classroom.

### **Democratic Engagement**

“Deep engagement with the values of liberty, equality, individual worth, open mindedness, and the willingness to collaborate with people of different views and backgrounds toward common solutions for public good” (AAC&U, 2012, p. 3).

### **Experiential Learning**

Several paradigms and theorists address experiential learning. For the purpose of the present study, experiential learning is, broadly speaking, a series of evolving theories that create a unique educational philosophy and epistemological basis for community-based learning.

Chapter two of the present study delves deeper into the nature of experiential learning.

## **High-Impact Practice**

Because of the positive effects on student learning and retention, special undergraduate opportunities (i.e. service learning) have been labeled as high-impact and share several traits.

Such traits include courses that:

- Demand conservable time and effort,
- Provide learning opportunities outside the classroom,
- Require meaningful interactions with faculty members and students,
- Encourage interaction with diverse others, and
- Provide frequent and meaningful feedback (Kuh, 2008, p. 5).

## **Assumptions, Limitations, and Delimitations**

### **Assumptions**

It is the researcher's assumption that faculty have developed and delivered a high-impact course. Essential to the Drexel University Side-by-Side pedagogy is equality of student course engagement. Equal quantity and representation of community and traditional university students creates a unique community-based learning format. The researcher of this study also assumed that students would thoughtfully respond to the surveys and participate in both the qualitative and quantitative measurements. The researcher postulated that the students in this study were entering the Drexel University Side-by-Side course possessing a baseline of 21st-century skills. There was also recognition that growth can be measured using interval data.

### **Limitations**

There were limitations to this research study. First, the study's respondents were from a small non-random sample. Second, there was no control group and results were limited to one

educational institution and therefore are not generalizable. Additionally, quantitative data is collected from the use of self-reporting and therefore has intrinsic limitations. The study had a 10-week time constraint as the course was offered at an institution with a nontraditional term system.

### **Delimitations**

Delimitations of this study included the selected population and the very limited sample size. Side-by-Side courses are restricted to a maximum of 30 students to assure that it maintains its high-impact pedagogy and course engagement; therefore, the sample size was small. There are limited faculty who have been trained in developing and teaching Side-by-Side courses, which therefore limited the number of courses offered. Moreover, there is little research that explores this course format; consequently, methodological models were limited. Although the study did not offer a control or comparison, this study serves as a foundation for future research.

### **Summary**

There is renewed dedication within institutions of higher education for democratic and civic engagement. Additionally, educators and leaders in the workforce have articulated a need for 21st-century skills to supplement academic content and credentials (AAC&U, 2012). However, these larger institutional goals often do not align with academic or curricular models.

Drexel University's Side-by-Side learning format intentionally engages students enrolled in the course democratically. This study attempted to determine the acquisition of 21st-century skills resulting from such engagement. The intent of this study was to determine if this unique course format offers a pedagogy that institutions may use to align institutional goals of civic learning and 21st-century skills. In addition, findings from the present study may be useful in

recommending the sequencing of experiential and community-based learning opportunities for students.

## **Chapter 2: The Literature Review**

### **Introduction**

Community-based learning (CBL) is a high-impact practice that provides a structure for civic learning and democratic engagement in which personal, social, and academic outcomes emerge. Throughout American history the definition, rhetoric, and practice of CBL have evolved since the initial dedication to civic engagement within educational institutions. As a democracy, the United States has depended on an engaged citizenry since its founding, and the nation continues to depend on engaged citizens. In addition, institutions of higher education need to provide future citizens and workforce members with skills necessary for 21st-century professionals. This chapter provides a review of CBL including civic engagement, experiential learning theory, and student learning outcomes within CBL courses. This research strengthens the framing questions of why CBL is important within a modern university for the acquisition of 21st-century skills.

### **History of Civic Learning and Democratic Engagement in Higher Education**

Higher education institutions have embraced civic engagement and community-based learning since President Lincoln signed the Morrill Act in 1862 and established the first Land Grant Institution. Throughout history, American educational leaders and philosophers have been instrumental not only in education, but also in preparing the nation's youth to be civically engaged (Brand, 2010).

Today, over half of American colleges and universities have CBL initiatives. Campus Compact reported that 62% of their 1,100 member institutions require a CBL course as part of their core curriculum (Rebecca, 2012). CBL, as indicated by Eyler (2002), is ideally suited to achieve both personal and academic goals for students and broader goals of civic engagement

and social justice for communities.

Defining civic engagement presents formidable challenges as it is a complex concept (Jacoby, 2009). (Saltmarsh, 2005) writes:

A lack of clarity about what is meant by the term “civic engagement” is evident when, at almost any gathering convened for the purpose of furthering civic engagement in higher education, questions inevitably arise about what is meant by civic engagement and about how it relates to civic education, service learning, democratic education, political engagement, civics, education for citizenship, or moral education. Moreover, the lack of clarity fuels a latent confusion about how to operationalize a civic engagement agenda on campus. (p. 2)

Additionally, there is widespread agreement that a working definition of civic engagement within institutions of higher education must be broad enough to include education as well as students engaging as citizens and leaders. Knowledge and skills are acknowledged to be necessary but not sufficient (Jacoby, 2009, p.7). “Civic engagement” is typically used in the literature and within institutions as a general term, which includes several initiatives in higher education involving community-service, volunteerism, voting, service-learning and community-action research. It is important to note that while the literature overwhelmingly refers to civic engagement pedagogies within an academic classroom as “service-learning,” for the purposes of the present study, it will be referred to as *community-based learning*. This change in terminology acknowledges the legitimacy of the course pedagogy through the reality of an experience of learning in and with a community, thus making a clear distinction between volunteerism and service. Jacoby (2015) points out the importance of a term and states, “ For some African Americans and other who have experienced oppression, *service* still connotes



involuntary servitude (p. 10). Additionally, Honnet and Poulsen (1989), “service, combined with learning, adds value to each and transforms both” (p.1). Moreover, service-learning research indicates that integrating knowledge, skills, and cognitive capacities are necessary for students to effectively deal with the complex social issues that challenge citizens (Eyler, 2002).

Community-based learning has become a hallmark program initiative at over half the colleges and universities within the United States. In 2012, 78% of Campus Compact member institutions hosted funded public dialogues on civic issues and 62% required service-learning and/or civic engagement of their students (“Creating a Culture of Assessment: Annual Member Survey,” 2012). In 2012, the National Task Force on Civic Learning and Democratic Engagement charged higher education institutions with five essential actions and explained in their report that “multiple stakeholders can make college students’ civic learning and democratic engagement a pervasively embraced educational priority and a resource for democracy” (“ACrucible Moment:College Learning & Democracy’s Future”, 2012). The report continues to invite educators to complement our society’s strong commitment to college attendance and to graduate college students who are prepared as informed, engaged, and globally knowledgeable citizens (p. vii). Furthermore, the AAC&U embraces experiential learning and democratic education and states:

Civic literacies cannot be garnered only by studying books; democratic knowledge and capabilities also are honed through hands-on, face-to-face, active engagement in the midst of differing perspectives about how to address common problems that affect the well-being of the nation and the world. (2012, p. 3)

Most institutions of higher education use an inclusive definition for “civic engagement” on their campus. This definition reflects a clear purpose, hence, the activity is to educate or enhance

students' understanding of civic life and the work generally can be referred to as "civic engagement" (Cress, Burack, Giles, Elkins, & Stevens, 2010, p. 4). Finley (2011) suggested that while it is helpful to have an inclusive institutional definition or understanding of "civic engagement," this broad civic mission of higher education aims at providing students only with an understanding of civic life rather than providing students with the *skills and values needed to participate* in a civic life (p. 3). Researchers have argued that within this definition, we have lost the original commitment American universities made to students and their society, namely providing students with the skills and values needed to live within a diverse democratic society (Boyte, 2008; Colby, Ehrlich, Beaumont, & Stephens 2003; Thomas 2011). It is essential to focus on civic values and democratic skill-building if higher-learning institutions are to return to their historic missions (Colby et al., 2003).

Research indicates that levels of political knowledge and civic identity affect the acceptance of democratic principles, attitudes toward specific issues, and political participation, as well as new leadership and skills (Galston, 2001). Recently, Mitchell, Visconti, Keene, and Battistone (2011) expanded on the benefits of students' civic identity and referred to this conceptual framework as the "new leadership." Further, Knepelkamp (2008) holds that fully-engaged students develop a civic identity, apply knowledge, and develop skills as a result of such civic and democratic engagement. Literature on 21st-century workforce skills is replete with initiatives that encourage higher-level thinking skills, civic literacy, and engagement (Kidwell, 2010). Colleges and universities are poised to create a culture of civic engagement as well as 21st-century skill attainment within community-based courses.

Critics have urged institutions of higher education to emphasize practical skills and innovative knowledge that respond to market needs and support economic growth and

productivity both locally and globally (Ostrander, 2004). There is a movement within university civic engagement reflected in the *1999 Declaration Civic Responsibility of Higher Education* signed by presidents of colleges and universities and endorsed by Campus Compact among its member campuses. Top educational leaders have clearly articulated their commitment to civic and democratic education and state:

In celebrating the birth of our democracy, we can think of no nobler task than committing ourselves to helping catalyze and lead a national movement to reinvigorate the public purposes of and civic mission of higher education. We believe that now and through the next century, our institutions must be vital agents and architects of a flourishing democracy. (Campus Compact, 1990, p. 11)

College faculty has expressed concern that this role, which emphasizes practical skills, may transform scholarship into simply vocational training dictated by the market (Ostrander, 2004, p. 77).

Contemporary research on metacognition returns to classic theorists such as Dewey, Hahn, Lewin, Piaget, and Freire and underscores the role of experiential learning as central in the larger learning process (Kolb, 2009). Therefore, community-based learning arguably meets the larger social and institutional needs for democratically engaged students and universities as well as providing the metacognition central to the learning process. The student learning outcomes of courses must be assessed and evaluated in order for higher education institutions and its faculty to embrace this pedagogy and philosophy as a paradigm shift in contemporary learning practices and democratic engagement.

### **Experiential Learning Theorists**

John Dewey is recognized as the “father of experiential learning.” Although Dewey never

explicitly identified community-based learning as a clear mechanism for civic engagement and social responsibility, his research and work continue to challenge educators and students to come toward a model of learning that embraces active citizenship. Since Dewey's 1916 publication, *Democracy and Education*, researchers have looked to Dewey for a theoretical foundation that supports community-based learning pedagogy. His later writings (1938) in *Experience and Education* clarify his thinking on experiential learning and set the stage for the progressive education movement, whereby "the place and meaning of subject matter and of organization within experience" are framed at the core understanding of education, which was not just the transmission of facts, but a holistic education of the student towards the goal of a democratic society (Itin, 1999, p. 92). Dewey's *Five Phases or Aspects of Reflective Thought* offer a solid philosophical foundation and insight into democracy, community, experiential learning, learning outcomes, and active reflection (Giles & Eyler, 1994). Moreover, his philosophy of experiential learning creates a concrete theory for CBL pedagogy.

Giles and Eyler (1994) explored Dewey's work and posed the question: Is community-based learning a field or a social movement? This thought-provoking question challenged researchers to strengthen CBL pedagogy through both conceptual and empirical evidence while utilizing a theoretical approach in formulating a testable hypothesis. In Dewey's 1938 publication, *Experience and Education*, he did not frame knowledge and practice dichotomously; rather, he asserted that epistemology and pedagogy must be intrinsically linked. Therefore, without experiential learning, true democracy is not possible (Kraft, 1986). Dewey revealed that the educational process must involve the teacher and learner engaged in a purposive experience that underscores the importance of the depth of learning within experience (Dewey, 1938). Dewey elaborated on the value of experience within education and writes:

I assume that amid all uncertainties there is one permanent frame of reference: namely the organic connection between education and personal experience; or some kind of empirical and experimental philosophy...the belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative. (Dewey, 1938, p. 225)

According to the literature, Dewey is regarded as a progressive educator, social theorist, and public pragmatist; however, his theories are not without controversy. Research shows that Dewey concentrated on macro means to education and held that individuals must question through experience to enhance our human community. Other educators, such as Vygotsky, shared Dewey's ideas concerning the relationship between activity and learning. However, Vygotsky and Dewey disagreed in their process and goals of education. Unlike Dewey, Vygotsky suggested that a mentor is necessary to guide a student through an experience to a place of mastery (Glassman, 2001).

Dewey is one of several notable experiential education theorists referenced in the literature. His work is cited as inspiring several other prominent experiential learning theorists and is considered an educational and social philosophical base. His progressive vision of education inspired the development of other service-learning theories such as those developed by Hahn, Lewin, and Friere (Giles & Eyler, 1994).

In 1941, Kurt Hahn founded the Outward Bound Movement and applied Dewey's theory of active learning theory to a place-based model. Additionally, Hahn was inspired by Plato's works concerning the development of citizens and particularly with a citizen's ability to serve in his or her community (James, 1995). Hahn expanded this philosophy into a program whereby students used experience to develop their whole person. "Hahn saw service to one's neighbor

and in the cause of peace as major aspects of any educational program” (Kraft, 1968, p.15).

Both Hahn and Dewey framed experiential learning as larger social justice pedagogy. Hahn was considered one of the foremost educators of the twentieth century.

During this time, social psychologist Kurt Lewin developed his model of action research and laboratory training. Like Dewey, Lewin is revered as a critical member of experiential learning’s history. Lewin proposed a four-stage cycle wherein concrete experience, observations or reflections, formation of abstract concepts, and testing in new situations offered education a progressive theory (D. A. Kolb, 1984). Similar to Dewey and Hahn, Lewin emphasizes the value of personal experience. However, Dewey and Hahn differ in Lewin’s “attention to testing subjective personal meaning to abstract concepts and at the same time providing a concrete, publicly shared reference point for testing the implications and validity of ideas created during the learning process” (D. A. Kolb, 1984). Lewin’s (1951) integration of theory and practice, work on group dynamics, and methodology of action research significantly contributed to the growing field of experiential learning, and they suggest the measurement and the assessment of such learning.

Biologist Jean Piaget (1952) contributed to the field of experiential learning with a cognitive psychology lens and argued that people are active processors of information. Piaget disagreed with behaviorists’ view of humans as passive respondents to their social environment. He contributed to the field of experiential learning in his belief that children learn and develop cognitively through interaction with the physical and social world (Piaget & Cook, 1952). Piaget’s model is similar to Dewey and Lewin’s models, as he viewed learning as a process whereby development takes place in a cycle of interactions between the environment and individual (Kolb, 1984).

Democratic and experiential learning cannot be reviewed in the literature without recognition of Paulo Freire's adult literacy programs in Brazil. Different from Dewey, Freire emphasizes the critical role that learning centered on one's own personal experience plays in forming a learning self-identity (Kolb, 2009). Freire's theory of adult education was "set within a larger framework of radical social change" (Merriam, 1987, p.194). For Freire, "learners are engaged intellectually, emotionally, socially, politically, spiritually, and physically in an uncertain environment where the learner may experience success, failure, adventure, and risk taking" (Itin, 1999, p.91). Together, Dewey, Hahn, Lewin, and Freire were concerned about increasing students' self-efficacy while engaged in the democratic process. The theorists acknowledge the importance of content matter within a larger experience of learning. Vital to the philosophies are the relationships between the teacher, student, and larger community that actively engage all in an authentic and significant learning experience.

An additional theorist who influenced experiential learning is David Kolb. Kolb's (1984) research builds upon the ideas from Dewey, Hahn, Lewin, and Freire, and it emphasized that learning is conceptually a process rather than a measureable or definable outcome. He writes, "The emphasis on the process of learning as opposed to the behavioral outcomes distinguishes experiential learning from the idealist approaches of traditional education and from behavioral theories of learning" (p. 11).

Experiential learning theories create a unique educational philosophy and epistemological basis for CBL. Such learning holds a different set of assumptions: ideas are not fixed, but rather experience helps us to reform them (Kolb, 1984, p. 11). (Michelson, 1996) suggests that experiential learning is arguably one of the most significant areas for current research and practice in education. The theorists reviewed provide a solid foundation for experiential learning

through different academic lenses and serve as a precursor for CBL.

### **Experiential Learning and High-Impact Practice**

CBL has been revered as a high-impact practice in the AAC&U's 2007 report, *College Learning for the New Global Century*. Kilgo, Sheets, and Pascarella's (2014) longitudinal, pretest and posttest design research of institutions found that CBL had a narrowly focused positive effect on student learning and was consistent with the AAC&U's endorsement of a high-impact practice (p. 2). Such high-impact practices take different forms depending on the institution, context, and learner. However, they all use experiential or active learning models. Research suggests high-impact practices increase rates of student engagement and retention (Kuh, 2008b). According to Kuh, "Deep approaches to learning are important because students who use these approaches tend to earn higher grades and retain, integrate, and transfer information at higher rates" (p. 14). The National Survey of Student Engagement (NSSE) found that students who participated in a high-impact practice such as CBL reported greater gains in learning and personal development (Brownell & Swaner, 2009). Researchers subsequently recommended that students participate in at least two high-impact practices within their college career (Gonyea, Kinzie & Laird, 2008). Brownell and Swaner (2009) note most students, particularly first-generation college and African American students, are less likely to participate in such opportunities.

Outcomes of high-impact practices include positive student persistence and academic performance as measured by grade point average. Specifically, those students who participated in CBL courses demonstrated gains in moral reasoning, social and civic responsibility, development in social justice orientation, and increased commitment to pursuing service-oriented careers. Surveyed students were also able to apply classroom learning to real-world situations



(Brownell & Swaner, 2009). At its core, experiential learning aims to connect students, learning, and community. Saltmarsh (2005) writes:

Civic learning is rooted in respect for community-based knowledge, grounded in experiential and reflective modes of teaching and learning, aimed at active participation in American democracy, and aligned with institutional change efforts to improve student learning. (p. 53)

It is necessary to understand the history of American university and colleges' commitment to both civic engagement and experiential learning to contextualize student and institutional outcomes of CBL courses.

### **Student Learning Outcomes within a Community-Based Learning Course**

Decades of research studies suggest that community-based learning may have an impact on student personal, social, and learning outcomes. In CBL courses, students are encouraged to connect their personal goals and values with academic study and to apply what they are learning to real-world situations (Eyler, 2002). Moreover, students and faculty are encouraged to connect the academic knowledge with community experience to create sets of learning outcomes that are mutually reinforcing.

Together, experiential learning pedagogy, democratic engagement, and civic learning arguably meet the student learning needs and outcomes of 21st-century institutions of higher education. Bok (2006), in his book *Our Underachieving Colleges: A Candid Look at How Much Students Learn and Why They Should be Learning More*, reviews the data of 21st-century learning outcomes such as communication skills, critical thinking, character, preparation for citizenship, and living with diversity. He concludes that today's students are underachieving. Bok (2006) goes on to recommend that institutions of higher education focus not only on

offering courses and granting degrees but also on generating and measuring valuable kinds of learning.

Bringer and Hatcher (2000) clearly state that “[S]ervice learning is a *smart* choice for institutions of higher education because it enhances student achievement of core educational outcomes” (p. 274). Furthermore, a literature review by Finley (2011) indicates that CBL has a positive impact on core outcomes such as career development, retention, and completion rates (p. 8). While research has demonstrated that CBL is a high-impact practice that has positive effects on retention, completion, and career development (Astin & Sax, 1998; Gallini & Moelly, 2003; Roose, Daphne, Miller, Norris, Peacock, & White, 1997; Vogelgsange, Ikeda, Gilmartin, & Keup, 2002), research also demonstrates that such course work has a positive impact on students’ connections with faculty (Astin & Sax, 1998; Gray et al. 1998; Eyler & Giles, 1999). According to Pascarella and Terenzini (2005), a connection with faculty is an essential factor in students’ college persistence. Today, institutional assessments often include retention and completion rates, as they are important measures that influence national rankings.

Numerous studies have demonstrated the many positive impacts CBL has on a student’s academic learning (Astin & Sax, 1998; Balazadeh, 1996; Boss, 1994; Cohen & Kinsey, 1994; Driscoll, Holland, Gelmon, & Kerrigan, 1996; Eyler & Giles, 1999; Eyler, Root, & Giles, 1998; Strage, 2000). Furco (2002) contends that if research were to demonstrate that community-based learning is actually more effective at achieving course learning objectives, that academic institutions could readily justify and demonstrate the strength of the community-based pedagogy. Students and faculty report that CBL courses improve students’ ability to apply what they have learned in the “real-world” (Balazadeh, 1996; Cohen & Kinsey 1994; Eyler & Giles, 1999). The impact of CBL on student academic learning as measured by course GPA, however, remains

mixed and suggests the need for qualitative analysis (Astin & Sax, 1998; Vogelgesang & Astin, 2000). It is important to note that because CBL involves higher-order thinking, there is the suggestion that GPA is an inappropriate measure of cognitive outcomes or skills (Ram, Ravenscroft, Wolcroft, & Zlotkowski, 2000).

Studies that have measured CBL outcomes beyond GPA have demonstrated outcomes such as critical thinking, problem solving, and citizenship skills (Finley, 2011). Eyler, Giles, Stenson, and Gray's 2001 review of 31 studies and dissertations identified that courses engaged with the community had positive effects on student learning (p. 9). Moreover, over half of the studies concluded that "community-based learning 'improves students' ability to apply what they have learned to the 'real world'" (p. 3).

Studies have indicated that the high-impact practice of CBL increases learning outcomes. A meta-analysis of CBL courses found an average increase of 43 points between pre- and post-test measures on academic outcomes (Comway, Amel, & Gerwein, 2009). Additionally, Novak, Markey, and Allen (2007) demonstrated that across nine studies, courses that included a CBL component produced an increase of 53% on learning outcomes compared to those students not engaged in the community as part of a course. Despite the proliferation of research connecting student-learning outcomes with CBL courses, minimal research has connected such courses with outcomes associated with the "complexity of understanding, problem analysis, and critical thinking" (Finley, p. 10).

In addition to academic and learning outcomes, civic learning and democratic engagement within a CBL course strongly suggest a positive effect on students' intrapersonal and social development. Eyler et al. (2001) cite 33 articles and dissertations connecting such high-impact practices with students' personal efficacy and personal identity (p. 1). Moreover, a

meta-analysis of 58 CBL course studies found an increase of 21 points between pre- and posttest evaluations of student personal outcomes such as volunteer motivations, moral development, well-being, and career development (Conway et al., 2009).

Beyond intrapersonal skills and academic outcomes, researchers have found an emergence of interpersonal skills. Conway et al. (2009) claim that CBL places teaching and learning in a social context and therefore facilitates a socially responsible knowledge (p.233). Additional skills such as the ability to work with others, leadership, and communication skills emerge from this knowledge (Eyler et al., 2001; Moely, McFarland, Miron, Mercer, & Illustre, 2002).

Research suggests that this knowledge and skillset continues after course completion and college graduation. A study of 209 higher education institutions with a sample of over 12,000 students found that after controlling for civic engagement prior to college, benefits continued post-graduation (Astin, Sax, & Avalos, 1999). Civically engaged students demonstrated effective outcomes after undergraduate graduation. These outcomes included a frequency of socializing with diverse people, promotion of racial understanding, and participating in community action efforts (Finley, 2011, p. 12).

In conclusion, CBL research has demonstrated an increase in academic outcomes, inter- and intrapersonal skill development, and social and cultural awareness. The high-impact practices of CBL correlate to increased retention rates. Additionally, studies suggest that CBL effects are evident post-graduation. There is a deep history of experiential and civic learning opportunities within institutions of higher education. Research has demonstrated that this commitment and practice is beneficial not only to students within a CBL course, but also possibly to the larger institution.

## 21st-Century Skills

Over a century ago, progressive education leaders, spearheaded by John Dewey, argued for an educational system that taught students beyond basic curriculum. Since that time, calls have intensified as the nature of work and the economy has changed. In 2009, President Barack Obama stated:

I am calling on our nation's governors and state education chiefs to develop standards and assessments that don't simply measure whether students can fill in a bubble on a test, but whether they possess 21st-century skills like problem solving and critical thinking, entrepreneurship and creativity. (Darling-Hammond & Adamson, 2010)

Since that time, The National Education Association together with the Partnership for 21st - century skills, representing both business and education interests, articulated that the success of U.S. education in the 21st century depends upon the acquisition of 21st-century skills for three distinct reasons:

(a) Education is changing. American students are outperformed by their peers on 21st century skill assessments; (b) Competition is changing internationally. Innovation and creativity fuel economic competitiveness; (c) The workplace, jobs and skill demands are changing. ("National Education Association," 2014, para 4)

Binkely et al. (2012) explain that knowledge itself is becoming more specialized and technology is transforming the nature of work. Therefore, students need 21st-century skills to succeed in our global economy. Binkely et al. (2012) claim:

[Student] success lies in being able to communicate, share, and use information to solve complex problems, in being able to adapt and innovate in response to new demands and

changing circumstances, in being able to marshal and expand the power of technology to create new knowledge, and in expanding human capacity and productivity. (p. 17)

Furthermore, institutions of higher education must develop student skills that are marketable in a global 21st-century economy (Cobert, 2005). Boyles (2012) holds that within our new global economy there is an opportunity for careers to emerge that will cause existing companies to hire employees with higher-level skills in order to successfully compete. The increased demand for a highly skilled 21st-century workforce has contributed to the rising importance of obtaining a college education. However, recent studies indicate that newly hired college graduates do not excel in these higher-level knowledge and information-based skills at the level that employer's desire (p. 34).

A 21st-century skill is a broad concept that encompasses many nontraditional learning experiences. Dede (2010) asks, "What do the various frameworks for 21st-century skills have in common, and what does each uniquely add to an overarching conception about the knowledge that graduates at this time in history should have as effective workers and citizens (p. 41)?" The AAC&U (2007) and The Partnership for 21st Century Skills Framework (2006) have responded to the call from educators and provided a conceptual framework as reference. Both organizations share several significant emerging-content areas that are critical to success in communities and workplaces skills. These content areas include learning and thinking skills, knowledge of human culture and global perspective, and personal and social responsibility (Dede, 2010, pp. 6-7).

Despite the NEA's call for such skills, there is minimal assessment of 21st-century skills within undergraduate education. Colacino's (2013) research within an international educational setting underscored the importance of multicultural educational opportunities. The research suggested that using multiple means to present information and assess knowledge and skills

relating content to real-world issues and student interests, while fostering positive interactions among culturally diverse student populations, could increase student engagement in acquiring the 21st -century skills of communication, collaboration, critical thinking, and creativity (p. 92).

Throughout the research, educators cite the need for students to experience diversity (Hurtado & DeAngelo, 2012). Evidence from national surveys including the Your First Year College Year Survey, The Freshman Survey, HERI Faculty Survey, and the College Senior Survey conclude:

Educational practices and diverse learning environments should provide students with skills that will serve them throughout their lives. Equally important, however, are practices that prepare students for the society we aspire to become, practices that empower them to create a world that is more equitable, just, democratic, and sustainable. Therefore, we should not only develop critical thinking skills among our students, but also equip them as citizens with the drive, values, capacity to question, and ability to develop solutions in order to advance social progress. This is best accomplished through intentional educational practices that are integrative in nature, provide experiences that challenge students' own embedded worldviews, and encourage application of knowledge to contemporary problems. These are characteristics of many forms of diversity and civic-minded educational practices in curricular and cocurricular contexts. (Hurtado & DeAngelo, 2012, p. 14)

Students can experience diversity through multiple opportunities within an institution of higher education, and educators are poised to intertwine course content and global themes intentionally (Colacino, 2013).

The desire and recognition of 21st-century skills are not new to educators. Rotherham and

Willingham (2009) suggest that although these skills are not new, they are now mandatory for all students entering a global workforce. Twenty-first-century skills need to be explicitly taught within curriculum rather than occurring as an afterthought of educators (Rotherham & Willingham, 2010). Kay and Greenhill (2011) hold that funding is not our educational system's biggest challenge, rather the greatest challenge is to produce citizens who can succeed. They continue to state that 21st-century education is the foundation of our society and serves as the critical engine of our nation's success (p. 43).

### **Side-by-Side Community-Based Learning Format**

Drexel University's Side-by-Side Community-Based Learning course format is an evolution of Temple University's Inside-Out International Prison Exchange program. The Inside-Out International Prison Exchange Program is an initiative directed at transforming ways of thinking about crime and justice. The Inside-Out Prison Exchange Program brings campus-enrolled and incarcerated students together as classmates in postsecondary courses built around dialogue, collaboration, and experiential learning. Moreover, the high-impact practice challenges faculty and students to address social justice issues inherent in community-based work: the intersections of race, class, and gender (Davis & Roswell, 2013).

The idea for the Inside-Out International Prison Exchange Program came from Paul Perry, a man serving a natural life sentence in Pennsylvania. The coordination of the program is largely the result of Lori Pompa, professor of criminal justice at Temple University. While on a class trip to a correctional facility, Lori Pompa and Paul Perry were inspired by the rich conversation the two groups, which included students and incarcerated men, had in such a brief time. A year later, Pompa established the program in collaboration with Paul Perry as a way to bring college students and incarcerated individuals together as peers in a classroom setting. Weekly classes



were structured to enhance dialogic, collaborative, critical conversations, and include written reflections about crime, justice, and other relevant social issues (Pompa & Crabbe, 2004). In 2004, with the assistance of the Philadelphia Prison System, Temple University, and the Soros Foundation, Pompa expanded this innovative partnership between institutions of higher learning and prison systems nationally and created the Inside-Out National Instructor Training Institute.

To date, over 560 instructors from more than 350 colleges and universities worldwide have participated in the Inside-Out National Instructor Training Institute. As of 2015, a range of academic disciplines have offered over 800 classes inside correctional facilities. As a result, the Inside-Out Institute has been able to bring over 10,000 “inside” (incarcerated) and “outside” (university) students together in classrooms behind prison walls (Bryant, 2014). Inside-Out courses have been described as “transformative learning experiences” that “invite individuals to take leadership in addressing” the issues, policies, and topics studied (Pompa & Crabbe, 2004, p. 8).

Research on Inside-Out’s unique CBL pedagogy has been limited. Allred et al. (2013) measured changes in self-efficacy of inside and outside students from three universities. The study found that incarcerated, inside students, had a lower self-efficacy score at Time 1 compared to their peer outside, traditional college students. By the end of the semester course at Time 2, the researchers observed a statistically significant increase in self-efficacy among inside students only. The researchers recommend that future research add measures of academic self-efficacy, which include skillsets and substantive topics, in order to explore the possibility of more pronounced and extensive experiences of self-efficacy associated with this type of learning experience. They emphasize that it is important to measure the structure and content of a learning context that may impact student experiences (Allred, Harrison, & O’Connell, 2013).

The literature reveals one ethnographic study that has analyzed the relationship between university students and community members who participated in Intercambio, a collaborative language service-learning program (d'Arlach, Sánchez, & Feuer, 2009). Within the program, community members and students met for three hours a week for nine months to learn and teach each other their languages. After language instruction, the group reflected on a shared social problem. Researchers examined:

- How community members engaged in Intercambio;
- How community members viewed university students, given that they generally come from different backgrounds and levels of privilege;
- What participants gained, if anything, from reflecting on social problems as a group; and
- What actions, if any, participants took as a result of Intercambio (d'Arlach, Sánchez, & Feuer, 2009, p. 6).

The study concluded that a reciprocal, asset-based, community-university partnership is beneficial to both community members and university students. Both groups reported social, personal, and emotional growth. Students reported experience with diversity shattered stereotypes and presented unique global perspectives (d'Arlach et al., 2009). The author noted that more research in reciprocal models of CBL is necessary and stated:

After all, the university is accountable to the tuition-paying student who, on spring break might complain to his/her parents that s/he is learning from an undocumented immigrant, an inmate, or a homeless individual out in the community, rather than a Ph.D. faculty member in a classroom. It is easy to see how pedagogues would hesitate to apply reciprocal, albeit transformative, formats to service-learning. (d'Arlach et al., 2009, p. 15)

There is very limited research in the literature documenting the potential gains for student, faculty, and community members in such high-impact CBL pedagogies.

Traditionally, the field of service-learning has not placed the community in an expert role (Himley, 2004); (Saltmarsh, Hartley, & Clayton, 2009). Service-learning courses assume the community has a deficit that the resources or expertise of the university can help alleviate (Brukardt, Holland, Percy, & Zimpher, 2004; Saltmarsh et al. 2009). The term service-learning implies that university students enrolled in a course aid the community (Polansky, 2004); (Schmidt & Robby, 2002). Very rarely are community members portrayed as contributors of knowledge, collaborators within their community, or colleagues of college students (Clarke, 2003; (Dorado & Giles, 2004); Eyler & Giles, 1999; (Worrall, 2007). Service-learning scholars have recognized the irony in such a perspective and have been advocating for university-community partnerships that view the community as possessing knowledge and assets, such that the university and community can work together to cocreate solutions to social problems (Saltmarsh et al., 2009; Cruz & Giles, 2000).

Research on CBL has demonstrated a range of positive student-centered effects; however, several researchers have questioned if it is civic engagement. Finley (2011) noted that a number of scholars have argued, “[m]ost formats of community-based learning fail to intentionally engage students in activities and processes central to democratic-building (i.e. deliberative dialogue, collaborative work, problem-solving within diverse groups)” (p. 1). Mayhew and Fernandez’s (2007) five-course study demonstrated that the pedagogical practice that improved student social justice outcomes were those that combine intergroup dialogue within a CBL course. Such courses were taught with a significant emphasis on systemic social issues and purposely discussed diversity and provided opportunity for reflection (Finley, 2001, p.15).

### **Drexel University and Side-by-Side Program**

In 2010, President John Fry announced that under his leadership Drexel University would become the most civically engaged university (Drexel University Convocation, 2010).

Cooperative and experiential education is the cornerstone of a Drexel University education. The 2012–2017 Strategic Plan states the university mission as follows:

Drexel University fulfills our founder's vision of preparing each new generation of students for productive professional and civic lives while also focusing our collective expertise on solving society's greatest problems. Drexel is an academically comprehensive and globally engaged urban research university, dedicated to advancing knowledge and society and to providing every student with a valuable, rigorous, experiential, technology-infused education, enriched by the nation's premier co-operative education program. (Drexel University Strategic Plan, 2015, para 2)

The leadership of President Fry and the university's dedication to civic responsibility presents an ideal time to explore how such university vision can transcend into courses with the unique pedagogy of the university's Side-by-Side Community-Based Learning initiatives.

In 2011, Drexel University organized an Inside-Out specialized training for faculty, staff, and community partners. The group committed to piloting the existing program outside of correctional institutions and brought the high-impact practice to local community settings. The group formatted the Side-by-Side Community-Based Learning course to deepen the skills associated with democratic engagement and civic learning. Since Side-by-Side's development, the university has held over 15 courses with community partners from local anti-poverty organizations, urban farms, minority entrepreneur and small business support services, senior

living facilities, and Drexel's Dornsife Center for Neighborhood Partnerships. The following academic disciplines have offered Side-by-Side courses: sociology, criminology, English, communications, history, business, nursing, culinary arts, and behavioral health.

Between spring 2011 and fall 2014, approximately 150 Drexel University students and 150 community students completed Side-by-Side courses. While course evaluations have been positive and the number of Side-by-Side courses continues to increase, there is a need to provide quantitative and qualitative research regarding the effectiveness of the pedagogy and the return on investment to the university.

### **Summary**

The National Task Force on Civic Learning and Democratic Engagement has charged educators to provide 21st-century civic and democratic engagement skills. This builds upon AAC&U's national report, *A Crucible Moment: College Learning & Democracy's Future* (2012), which states, "When deep learning about complex questions with public consequences is coupled with college students' energies and commitments, democratic culture is reinvigorated" (p. 4). Nationally, there is a renewed institutional interest in civic engagement. As shared by Campus Compact (2014), more than 90% of its member institutions include service or civic engagement in their mission statements. This renewal in civic engagement has also brought increased national attention to the role of CBL and experiential learning in regards to 21st-century skill acquisition and democratic engagement.

Research overwhelmingly confirms the impact of CBL and value of experiential learning scholarship. Furthermore, it creates a paradigm for CBL courses wherein democratic learning emerges. Within this paradigm, the charge of universities achieving the education of civically engaged students and institutions may be achievable.

Decades of research have demonstrated a strong relationship between traditional learning outcomes and CBL. Researchers have also highlighted the numerous nontraditional outcomes that result from a CBL course. However, there are limited studies that investigate the unique pedagogy of reciprocal-based, high-impact CBL formats such as Side-by-Side. Therefore, studies are needed at institutions offering Side-by-Side courses, such as Drexel University, to provide data that may legitimize such pedagogy as a tool for 21st-century skill acquisition, democratic engagement, and civic learning within higher education.

## Chapter 3: Research Methodology

### Introduction

Side-by-Side is a community-based learning course format that was developed by a cohort of faculty, staff, and community partners at Drexel University in Philadelphia, Pennsylvania. The Side-by-Side courses have a unique community-based learning format that brings together traditional university college students with community members in a collaborative full-term course experience. Additionally, civic learning, democratic engagement, and 21st-century skills intersect within the Side-by-Side course pedagogy as part of the course design. While course evaluations assess student opinions and academic course content achievement within the community-based learning course, research on students' abilities to transfer their understandings to real world situations is very limited (Brown & Swaner, 2009).

The purpose of the study was to determine the acquisition of 21st-century skills as a result of the unique, high-practice pedagogy of Side-by-Side courses through the use of the National Survey of Student Engagement (NSSE). The acquisition of 21st-century skills was measured by utilizing the four topical modules from the NSSE survey and American Association of Colleges and Universities (2014). The four topical modules and course engagement assessed the abilities identified as 21st-century skills for the purpose of this study. They included:

1. Experiences with diverse populations: A perspective that includes cognitive and social elements of global views and intercultural understanding (para, 11).
2. Transferable skills: Activities that develop useful and transferrable skills for the workplace, such as verbal and written fluency and analytical inquiry (para, 5).
3. Civic engagement: Civic engagement is working to make a difference in the civic life of our communities and developing the combination of knowledge, skills, values, and

motivation to make that difference. It means promoting the quality of life in a community, through both political and non-political processes. In addition, civic engagement encompasses actions wherein individuals participate in activities of personal and public concern that are both individually life enriching and socially beneficial to the community (“ACrucible Moment: College Learning & Democracy’s Future”, 2012).

4. Global perspectives: A perspective, which includes cognitive and social elements of global views and intercultural understanding (para, 11).

This study examined the acquisition of 21st-century skills course (i.e., experience with diversity, global perspectives, civic engagement, transferable skills, and course engagement) within Side-by-Side community-based learning, through both quantitative and qualitative methods. There were three research questions for this study.

Quantitative Question:

1. How do student 21st-century skills (i.e., experience with diversity, global perspectives, civic engagement, transferable skills and course engagement), as measured by the National Survey of Student Engagement survey tool, change within a Side-by-Side course during the 10-week term?

Qualitative Questions:

2. How do Side-by-Side community student and Drexel student pairs describe their learning in areas of 21st-century skills (i.e., experience with diversity, global perspectives, civic engagement, transferable skills, and course engagement) within a Side-by-Side Course?
3. What evidence of 21st-century skills (i.e., experience with diversity, global perspectives, civic engagement, transferable skills, and course engagement) is



demonstrated in a Side-by-Side recorded video of the final assignment course presentation during the last week of the term?

A convergent mixed methods approach was utilized to determine if the four identified 21st-century skills emerge as a result of engagement within a Side-by-Side course (Creswell, 2012, p. 551).

### **Research Design and Rationale**

A convergent design method was used for the analysis of 21st-century skills within Side-by-Side courses. This method allowed for the comparison of the quantitative data to the qualitative data. The rationale for “converging” qualitative and quantitative data was that neither type of research method is by itself sufficient to answer the research questions (Tashakkori & Teddlie, 1998). The research methods were developed with an expansive rationale or desire to expand the breadth and depth of research by utilizing different inquiry components (Johnson & Onwuegbuzie, 2004, p. 22). Moreover, quantitative and qualitative methods together complemented one another and allowed for more complex analysis of the data and investigation of the research questions (Creswell & Plano-Clark, 2007). Additionally, Johnson and Onwuegbuzie (2004) explain that a mixed method not only legitimize multiple approaches to answering research questions, but is also an expansive and creative form of research. They state, “Research methods should follow research questions in a way that offers the best chance to obtain useful answers” (p. 17). In this research, themes that emerged from the qualitative data were analyzed to determine if they support or refute the statistical analysis and vice-versa (Creswell, 2013, p. 350). This methodology best captured the 21st-century skill acquisition of students within the Side-by-Side course format, as the researcher compared the two sources of data to determine if the qualitative portion supported the quantitative results (see Figure 1).

## **NSSE Survey**

The four topical modules from the NSSE survey used to collect a quantitative measure of 21st-century skills attainment within a Side-by-Side course. The survey tool is a national survey typically used to capture institutional engagement of undergraduate college students. As previously shared, the four NSSE topical modules used to measure four 21st-century skills include: experience with diversity, global perspectives, civic engagement, and transferable skills. This methodology provided a measure of change in skill level and acquisition within Side-by-Side courses.

The researcher recognized that the statistics that emerged from the NSSE tool may not adequately capture the skill acquisition that results from the high-impact community-based learning course. Therefore, two qualitative methods were employed to alternatively measure 21st-century skills. The inductive logic utilized within the qualitative methodology provided rich “context-bound” data in which the effectiveness of the Side-by-Side course format emerged (Creswell & Plano-Clark, 2007, p. 30).

The two distinct qualitative methods within this study complimented the quantitative measurements. Paired student groups, one traditional Drexel student and one community student, were interviewed and asked to describe their experience within the course. Transcripts from such interviews were coded using the a priori codes or the four identified 21st-century skills and course engagement. Additionally, a video archive of student course presentations was analyzed and a priori coded for the 21st-century skills or dependent variables. Furthermore, emergent unanticipated codes that are inductive or “reflect the terms used by the [participants] themselves” were included in the qualitative analysis (Strauss, 1987, p. 33). The researcher compared the frequency of the codes that emerge from the qualitative data with the descriptive

statistics from the NSSE tool. A qualifying quantitative data methodology was employed whereby quantitative data from the NSSE questioners were factor analyzed for 21st-century skills and engagement. These factors then became the themes that are compared with those analyzed from the qualitative portion of the research (Creswell, 2013, p. 35).

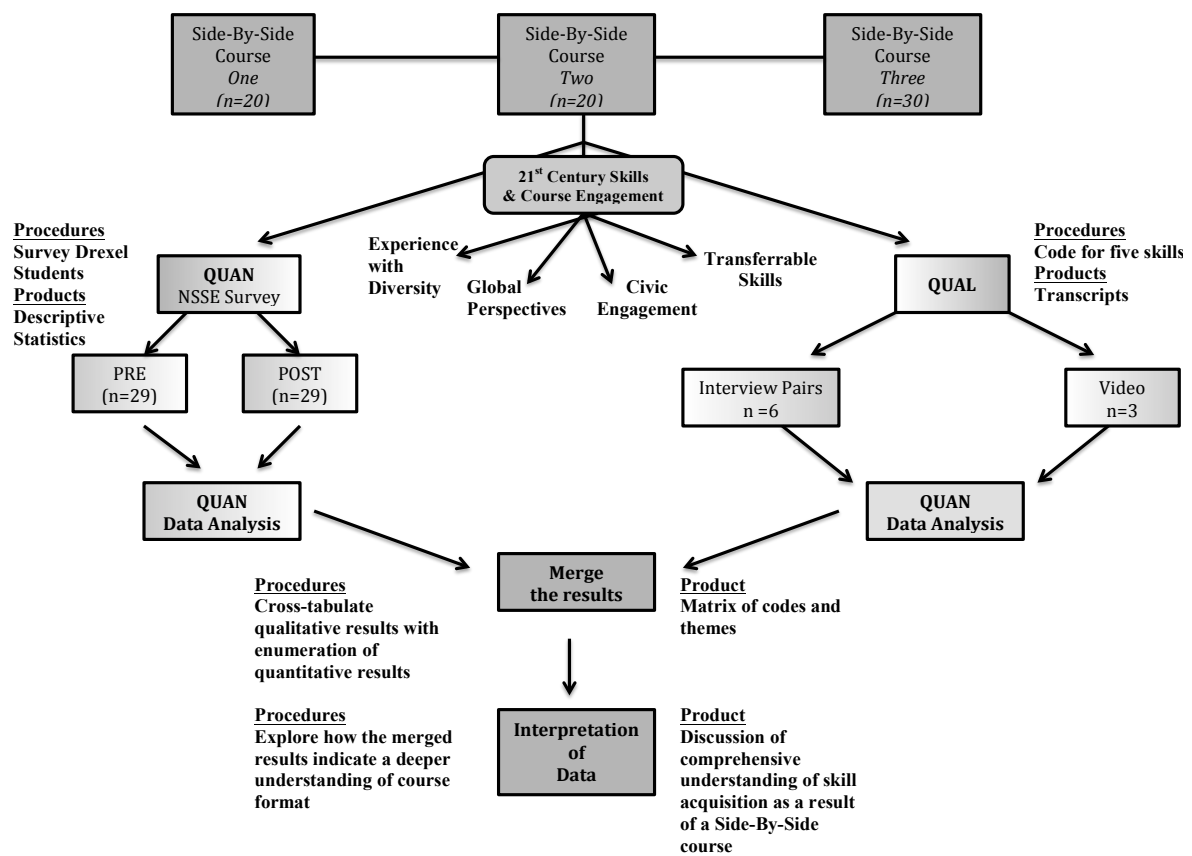


Figure 2. Research procedures for a mixed-methods design

## **Site and Population**

### **Site Description**

This research took place within Drexel University. Drexel University is a comprehensive global research institution in Philadelphia, Pennsylvania. The institution has approximately 26,000 students, of which 13,000 are full-time undergraduate students and 10,000 are graduate students. Drexel University requires students to enroll in cooperative education (e.g., co-op), which engages students for a period of time in the workforce. Subsequently, the university operates under a term system whereby courses are 10 weeks unlike semester schools.

The site of the Side-by-Side courses researched was the university's urban extension campus, Dornsife Center for Neighborhood Partnerships. The Dornsife Center is approximately four blocks from the main campus and is located between two communities: Powleton Village and Mantua. The extension center was renovated and began extension education and programming in June 2014. The facility serves as a site for community programming, community-based research, and Side-by-Side courses.

### **Population Description**

Given the limited availability of Side-by-Side participants, a purposive sampling approach was utilized to obtain the research population. A convenient sampling method was utilized as “the individuals selected for this study represented the characteristics the investigator seeks to study” (Creswell, 2012, p. 145). Undergraduate Drexel students enrolled in the spring 2015 term Side-by-Side course were eligible to participate in this research. Drexel students were offered the opportunity to complete the quantitative and qualitative portion of this research. Approximately 30–45 residents from the local community who were enrolled in the Side-by-Side course as community students were included in the qualitative portion of the research.

### **Site Access**

Prior to conducting the research study, site permission and access to the Dornsife Center was approved by the office of the Vice Provost for Drexel University Community Partnerships. Additionally, approval by the Dean of the College of Arts and Sciences as well as course permission was obtained from individual faculty members offering the course.

### **Research Methods**

A convergent mixed-methods approach for this study was utilized. Quantitative and qualitative data provided a comprehensive understanding of the 21st-century skills acquisition as a result of the Side-by-Side course format.

### **National Student Survey of Engagement**

Participants were quantitatively assessed using a survey instrument modified from the National Survey of student Engagement (NSSE) topical modules (see Appendix 1). The NSSE survey was launched in 2000 and updated in 2013. The survey assesses the extent to which students engage in educational practices associated with high levels of learning and development (NSSE, 2014). The tool was designed to assess the extent to which students are engaged in empirically-derived good educational practices and evaluate what they gain from their college experience (Kuh, 2001, p. 2). The survey relies on self-reported data. There are inherent threats to the validity and reliability of self-reported data; however, focus groups, cognitive testing, field tests, factor analysis, and larger psychometric analysis of the NSSE tool by Indiana University Bloomington has determined that the face and construct validity of the survey are strong (p. 23).

In 2013, NSSE appended topical modules, which are short sets of questions on designated topics that include experiences with diversity, global perspectives, civic engagement, and transferable skills (para. 3). The NSSE tool is available to member institutions for the

purpose of institutional distribution and measurement. Permission for instrument use was obtained in December 2014 from Indiana University Bloomington (see Appendix B). Additionally, an adapted NSSE engagement tool (see Appendix A) from Ward, Yates, and Song's 2011 pilot study of engagement within an undergraduate business course was utilized. Permission to utilize the adapted tool was granted in January 2015.

The adapted NSSE tool was administered to Drexel students enrolled in a Side-by-Side course at weeks 1 and 10 during spring quarter 2015. The first survey distribution established a baseline measurement of students' self-reported 21st-century skills. Data obtained from pre- and post-survey distribution was used to determine a change in 21st-century skills. Additionally, the survey was used to determine the level of engagement within the course as compared with other college courses. The data from the survey was analyzed using t-tests within SPSS. In addition to the quantitative measurement of 21st-century skills, three additional measures were qualitatively analyzed for 21st-century skill acquisition: student interviews, analysis of course assignments, and course video.

### **Student-Paired Interviews**

Upon completion of the Side-by-Side course, pairs of community and Drexel students were selected to participate in a semi-structured interview (see Appendix C). The interview was transcribed and coded using the four variables identified as 21st-century skills and course engagement using ATLAS.ti. Two pairs from each of the three Side-by-Side courses were interviewed for a total of six student pairs.

### **Course Video**

Video of course engagement was utilized as an additional qualitative data source. Heath, Hindmarch, and Luff (2005) explain that audio-visual recordings are increasingly being used to

support research that examines situated activities whereby analysis of interpersonal communication, nonverbal, or visible aspects of human behavior are to be measured (p. 9). For the purposes of this research, video recordings were coded using the five identified dependent variables.

In total, three research methods were utilized and converged as part of this mixed-methods research. Data from the quantitative and qualitative methods examined 21st-century skills and course engagement within a Side-by-Side course. The use of multiple methods and converged evidence increased the validity and reliability of the research (Russ-Eft & Preskill, 2009, p. 227).

### **Stages of Data Collection**

Data for this research study was conducted in two stages. Preliminary data was collected in week 1 from Drexel students to determine demographics and establish a baseline of 21st-century skills. Upon completion of the course, a second data collection included both quantitative and qualitative methods. A post-test collected data in week 10 and measured the change in 21st-century skills. The qualitative collection of data through interviews and videos, occurred during the last week of the course. A timeline outlining the data collection, analysis, and reporting process is available in Table 2.

Table 1

*Data Collection Timeline*

Task	Date
Prepare IRB Paperwork	November 2014
Submit IRB Paperwork	December 2014
Conduct Pilot Study	January 2015–March 2015
Administer Pre-test: <ul style="list-style-type: none"> <li>• Baseline of 21st-century skills</li> <li>• Demographics</li> <li>• Course engagement</li> </ul>	April 2015
Interview selected student pairs	May–June 2015
Video course engagement	May–June 2015
Code/Analyze data	June–July 2015
Interpret results	July–August 2015



Report finding	August–September 2015
Conclusion with recommendations	September–October 2015
Finalize dissertation study	November 2015

### **Data Analysis Procedures**

Drexel students enrolled in a spring term Side-by-Side course were invited to participate in the survey the first week of their course. Written and oral consent were obtained from those willing to participate. A pre-test paper survey was distributed and collected during the course in the classroom in week 1 of the course. Survey identification numbers were assigned to those participating. The post-test was distributed to participants during week 10 of the course. Survey data was analyzed using SPSS.

Drexel and community students were invited to participate in the qualitative portion of this research during week 9 of the course. At that time a written and oral invitation to participate in each of the research methods was advertised during the course. Written consent was obtained from those students willing to participate. Two purposively selected pairs of students were selected to participate in a semi-structured interview. Course engagement was video recorded in the final two weeks of the term.

Table 2

*Data Collection and Analysis*

Research Questions	Research Method	Data Collection Method	Data Analysis
<i>Research Question Q1</i>  How do student 21st-century skills change within a Side-by-Side course from the beginning and end of the term?	Quantitative:  Pre and Post test  <ul style="list-style-type: none"> <li>• NSSE topical modules</li> <li>• Likert-scale survey</li> <li>• Demographic</li> </ul>	Paper survey distributed week one and ten of course	SPSS  <ul style="list-style-type: none"> <li>• T-test</li> <li>• Multivariate regression</li> </ul>
<i>Research Question Q2</i>  How do Side-by-Side student pairs describe their learning in areas of 21st-century skills within a Side-by-Side course?	Qualitative:  Semi-structured interview of student pairs	Interview is recorded and transcribed	ATLAS ti  A Priori Codes:  1-civic engagement  2-experience with diversity  3-global perspectives  4-transferable skills  5-course engagement  Inductive Codes
<i>Research Question Q3</i>	Qualitative:	Video is recorded and	ATLAS ti  A Priori Codes:

<p>What evidence of 21st-century skills is demonstrated in a Side-by-Side course video?</p>	<p>Video of course class period</p>	<p>coded</p>	<p>1-civic engagement 2-experience with diversity 3-global perspectives 4-transferable skills 5-course engagement Inductive Codes</p>
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### **Ethical Considerations**

There was minimal risk to participants of this study; however, several ethical considerations were considered. Minors were not considered for participation in this study; therefore, parental/legal consent was not required of adults outside of this study. Additionally, all research methods were explained both orally and with a written explanation. Participants were free to recuse themselves from the study at any time.

The quantitative portion of this study was confidential and anonymous. In order to protect the identity of those participating in the quantitative surveys, an anonymous survey identification number was assigned to each participant. The pseudonym was derived from the participants' initials and a "C" or "D" to distinguish their student category as Drexel or Community. Consent was obtained upon an oral explanation of the study. A written explanation preceded the survey. Students' participation in the survey in no way affected their grade in the course. Students were able to choose not to complete the survey at any point.

There were two qualitative portions of the study with individual written consents at each iteration of the research. Students willing to participate in paired interviews were recorded and the recordings were transcribed. Names and identifying information were not included in the

interview transcript which was coded. Students were able to end the interview at any point if they felt uncomfortable. If any member of the student pair ends the interview, the recording was destroyed and the interview was ended.

The video recording of the course presentations for the final assignment was explained orally to the class and a written explanation was provided. Written consent was required of all students for the video to be recorded. Although no names, addresses, or contact information was documented in the reporting of this study, student physical identity was recorded. Confidentiality and anonymity were not guaranteed in the video due to the fact that students appeared physically in the recording. Approval from Drexel University's Internal Review Board was obtained prior to data collection.

### **Summary**

The purpose of this study was to examine the acquisition of 21st-century skills as a result of engagement within this community-based course format. The Study of the National Student Survey of Engagement and a priori code analysis of student pair interviews and course presentation video, combined into a convergent mixed-methods study that examined skill acquisition.

## Chapter 4: Results and Findings

### Quantitative Results

The National Survey for Student Engagement (NSSE) was repurposed for this study to measure 21st-century skill in three Side-by-Side courses at Drexel University. The study's survey tool was produced by merging four NSSE topical modules: (a) experience with diversity, (b) global perspectives, (c) civic engagement and (d) transferable skills. Additionally, it included NSSE's tool for measuring course engagement, which created a 70-question item survey instrument (Appendix A). The survey instrument was distributed during the first class (week 1) and the last class (week 10) of each of the three Side-by-Side courses at Drexel University: a history course, History of Philadelphia; a literature course, Philadelphia Stories; and a communication course, Public Speaking.

All university students who were enrolled in the three Side-by-Side courses at Drexel University during the 2015 spring term were eligible to participate in the quantitative portion of this research study. Of the 35 eligible Drexel students, 29 completed pre and post surveys that resulted in an 82.9% response rate. Composite scores were created to measure the four skills articulated in the following research question: How do student 21st-century skills (i.e., experience with diversity, global perspectives, civic engagement, transferable skills) and course engagement, as measured by the National Survey of Student Engagement survey tool, change throughout a Side-by-Side course during the 10-week term? Variable labels were created for each of the four skills and course engagement (Table 3). Bivariate and regression analysis were utilized to assess for differences in the four identified skills and course engagement between pre and post survey data. It is important to note that quantitative data only reflected the skill attainment of Drexel students, as community students did not participate in the survey.

Table 3

*Variable Labels Utilized for Analysis*

Skill	Variable label time 1	Variable label time 2
Experience with diversity	DP	DP_2
Global perspectives	GP	GP_2
Civic engagement	CE	CE_2
Transferable skills	TS	TS_2
Course engagement	E	E_2

**Descriptive Statistics**

Frequencies and percentages for nominal variables are presented in Table 4. The majority of the survey respondents were enrolled in the Side-by-Side History course (44%), followed by the Side-by-Side Literature course (32%), and the Side-by-Side Communication course (24%). Sixty percent of the students who returned the post survey identified as male. The majority of the students who completed the survey identified as white. The preponderance of students fell into the age range of 20 to 22 years old. Additionally, the majority of students who answered the survey completed their co-op requirements and the mandatory Foundations in Civic Engagement Course (CIVC 101) course prior to enrolling in the Side-by-Side course. More than half of the students were seniors in college.

Table 4

*Frequencies and Percentages for Nominal Variables*

Variables	<i>n</i>	%
Course (pre)		
COMM	8	28
HIST	12	41
LIT	9	31
Course (post)		
COMM	8	32
HIST	11	44
LIT	6	24
Gender		
Female	10	40
Male	15	60
Race		
Asian or Pacific Islander	5	20
Black or African American	1	4
Hispanic or Latino	2	8
Other	2	8
White	15	60
Age		
17–19	2	8
20–22	13	52
23–25	9	36
26–28	1	4
Co-Op		
No	9	36
Yes	16	64
CIVC101		
No	7	28
Yes	18	72
Academic Year		
Freshman	1	4
Sophomore	5	20
Junior	5	20
Senior	14	56

*Note.* Due to rounding error, percentages may not add up to 100.

### Composite Scores

Composite scores were created by calculating the sum of individual questions within the survey tool for each of the four 21st-century skills and for course engagement (see Appendix F). Additionally, the assessment included the performance of Cronbach's alpha reliability testing on the newly created subscales (see Table 5). This estimate used George and Mallery's (2010) guidelines on reliability, where alpha values greater than .90 indicate excellent reliability, alpha values greater than .80 indicate good reliability, alpha values greater than .70 indicate acceptable reliability, alpha values greater than .60 indicate questionable reliability, and alpha values less than .60 indicate unacceptable reliability.

Table 5

#### *Composite Scores of Dependent Skill and Engagement Variables*

Composite variable	Cronbach's alpha reliability	No. of items
cDP	.85	11
cGP	.44	20
cCE	.77	14
cTS	.79	11
cE	.80	14
cDP2	.90	11
cGP2	.43	20

### Paired t-Test

A series of paired t-tests were performed to assess difference among the five composite variables (see Table 7). De Winter (2013) concluded in his study that utilized students' paired t-tests that extremely small sample sizes are feasible with  $N_s$  ( $N < 5$ ) if the within-pair correlation



was high (p. 1). There was not a significant difference between pre and post composite variable scores (see Table 6).

Table 6

*Composite Variable Paired Sample Statistics*

		Mean	N	Std. deviation	Std. error mean
Pair 1	DP_pre	25.8400	25	5.96294	1.19259
	DP_post	26.0400	25	6.76067	1.35213
Pair 2	TS_pre	30.8800	25	4.80729	0.96146
	TS_post	31.2800	25	6.22843	1.24569
Pair 3	CE_pre	48.9600	25	6.22816	1.24563
	CE_post	49.1200	25	5.03587	1.00717
Pair 4	GP_pre	71.5600	25	7.62168	1.52434
	GP_post	73.0400	25	7.33985	1.46797
Pair 5	E_pre	41.8400	25	5.08003	1.01601
	E_post	41.7600	25	6.52099	1.30420

Table 7

*Composite Variable Paired Samples T-Test*

	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. deviation	Std. error mean	95% confidence interval of the difference				
				Lower	Upper			
Pair 1 DP_pre – DP_post	-.20000	6.30476	1.26095	-2.80248	2.40248	-.159	24	.875
Pair 2 TS_pre – TS_post	-.40000	4.87340	.97468	-2.41164	1.61164	-.410	24	.685
Pair 3 CE_pre – CE_post	-.16000	4.68757	.93751	-2.09493	1.77493	-.171	24	.866
Pair 4 GP_pre – GP_post	-1.48000	4.63789	.92758	-3.39443	.43443	-1.596	24	.124
Pair 5 E_pre – E_post	.08000	6.10956	1.22191	-2.44190	2.60190	.065	24	.948

### Significant Results for Individual Survey Items

In addition to assessing composite scores, each individual survey question item was examined with a paired t-test and analyzed for significance (Appendix G). For twelve individual items across course engagement and all four 21st-century skills there were significant changes in pre to post data for self-reported skill development. Specifically, from week 1 to week 10 there was significant change in responses to several individual survey questions. By topic module, that change was reflected in responses to one experience with diversity question, one transferable skill question, four civic engagement questions, five global perspective question, and one course engagement question. Items determined to be significant were analyzed utilizing crosstabulations. Additionally, a McNemar value was computed when applicable. The McNemar test employs a 2 x 2 classification table to test the difference between paired proportions of two discrete dichotomous variables. The test is utilized in studies that determine significant change in results before and after an intervention (i.e., the Side-by-Side course experience).

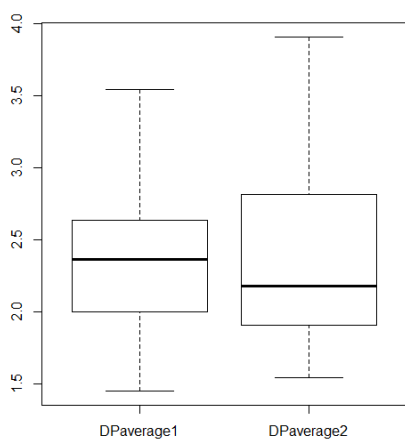


Figure 3. Comparison of DP and DP2

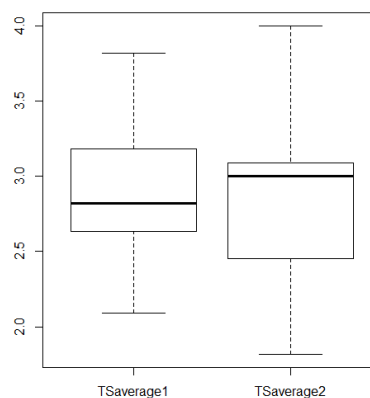


Figure 4. Comparison of TS and TS2

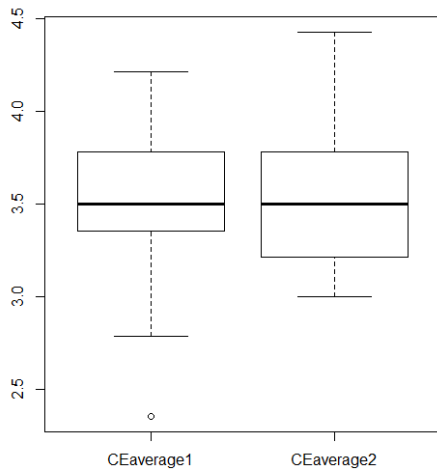


Figure 5. Comparison of CE and CE2

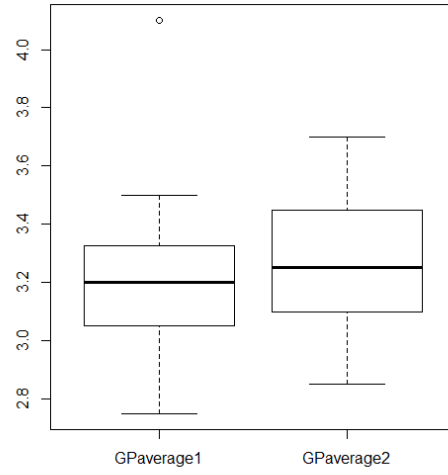


Figure 6. Comparison of GP and GP2

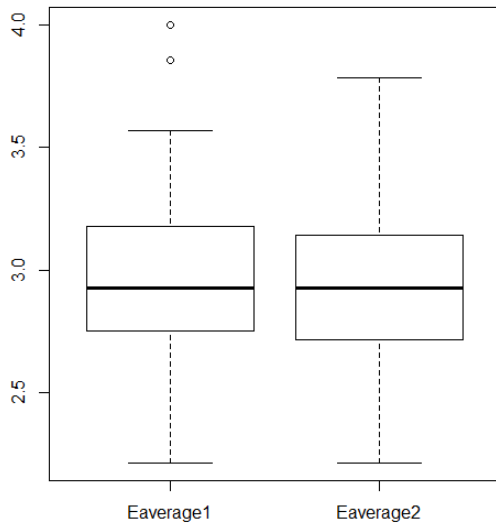


Figure 7. Comparison of E and E2

### Experience with Diversity

**Question DP\_1:** To what extent have events or activities offered at your institution emphasized perspectives on societal differences (economic, ethnic, political, religious, etc.)?

A significant difference was observed in variable DP\_1 in the pre and post survey data at a 10% level (Tables 8 and 9). In particular there was a significant increase in the average value of DP\_1 from pre to post (2.44 vs. 2.76;  $t = -1.995$ ,  $p = .05$ ).

Table 8

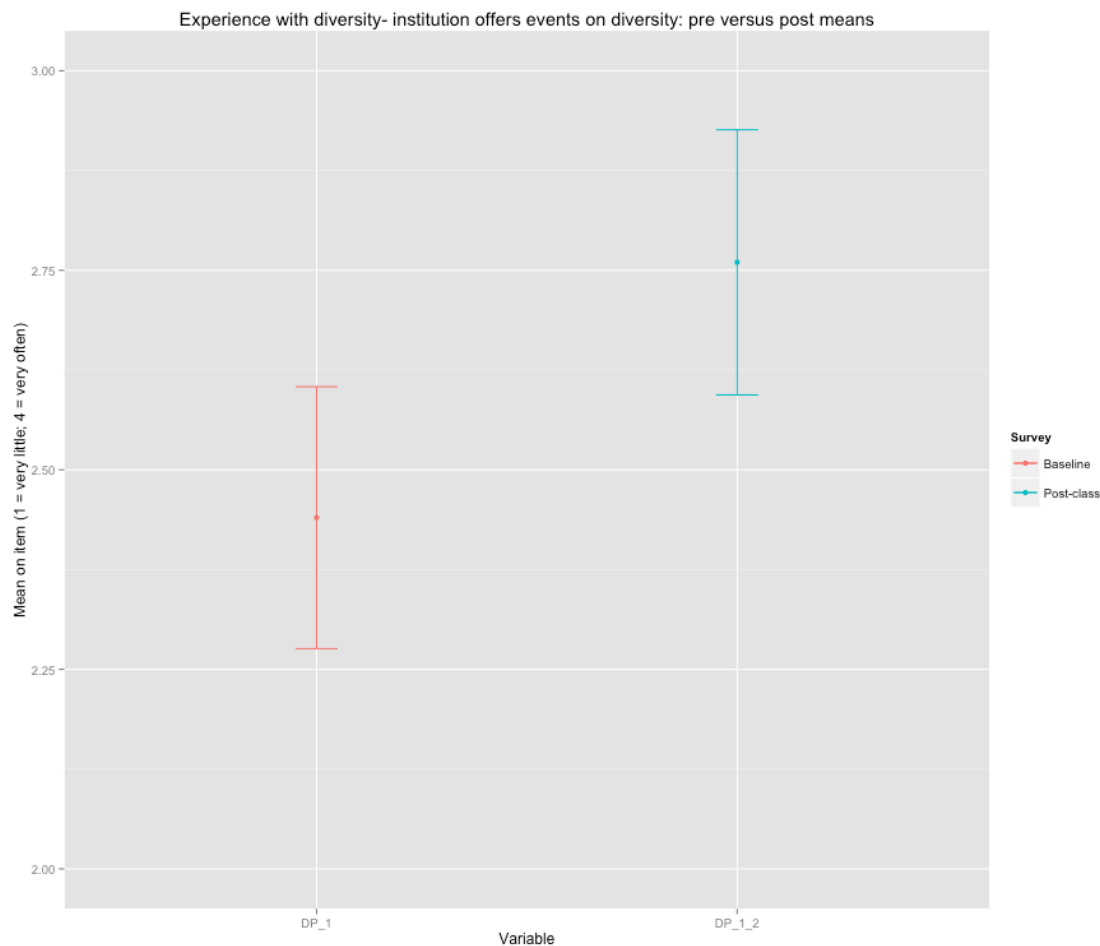
*DP\_1 Paired Samples Statistics: To what extent have events or activities offered at your institution emphasized perspectives on societal differences (economic, ethnic, political, religious, etc.)?*

		Mean	N	Std. deviation	Std. error mean
Pair 1	Week 1 – Institution events that emphasized social difference	2.4400	25	.82057	.16411
	Week 10 – Institution events that emphasized social difference	2.7600	25	.83066	.16613

Table 9

*DP\_1 Paired Samples Test: To what extent have events or activities offered at your institution emphasized perspectives on societal differences (economic, ethnic, political, religious, etc.)?*

		Paired differences				t	df	Sig. (2-tailed)	
		Mean	Std. deviation	Std. error mean	95% confidence interval of the difference				
					Lower				Upper
Pair 1	Week 1 – Institution events that emphasized social difference Week 10 – Institution events that emphasized social difference	-.32000	.80208	.16042	-.65108	.01108	-1.995	24	.058



*Figure 8.* Change in DP\_1 pre and post survey: To what extent have events or activities offered at your institution emphasized perspectives on societal differences (economic, ethnic, political, religious, etc.)?

Crosstabulations were run to assess shifts between pre and post responses for DP\_1 (Table J1). A shift toward higher values or frequency was observed. In particular, in their answers to the survey question four respondents moved from “Some” to “Quite a bit,” two moved from “Quite a bit” to “Very often,” two moved from “Some” to “Very often,” and one moved from “Very little” to “Some.” There was only one respondent that moved from “Quite a bit” to “Some” and two respondents moved from “Very often” to “Quite a bit.” No McNemar test was reported because the data could not be computed.

### Global Perspectives

**Question GP\_1:** How much do you agree or disagree with the following statements? When I notice cultural differences, my culture tends to have the better approach.

A significant decrease was observed in variable GP\_1 in the pre to post survey data (2.92 vs. 2.56;  $t = 2.221$ ,  $p = .036$ ). It should be noted that this item in the survey tool was reverse worded; therefore, a decrease in the data indicated an increase in global perspective (Tables 10 and 11).

Table 10

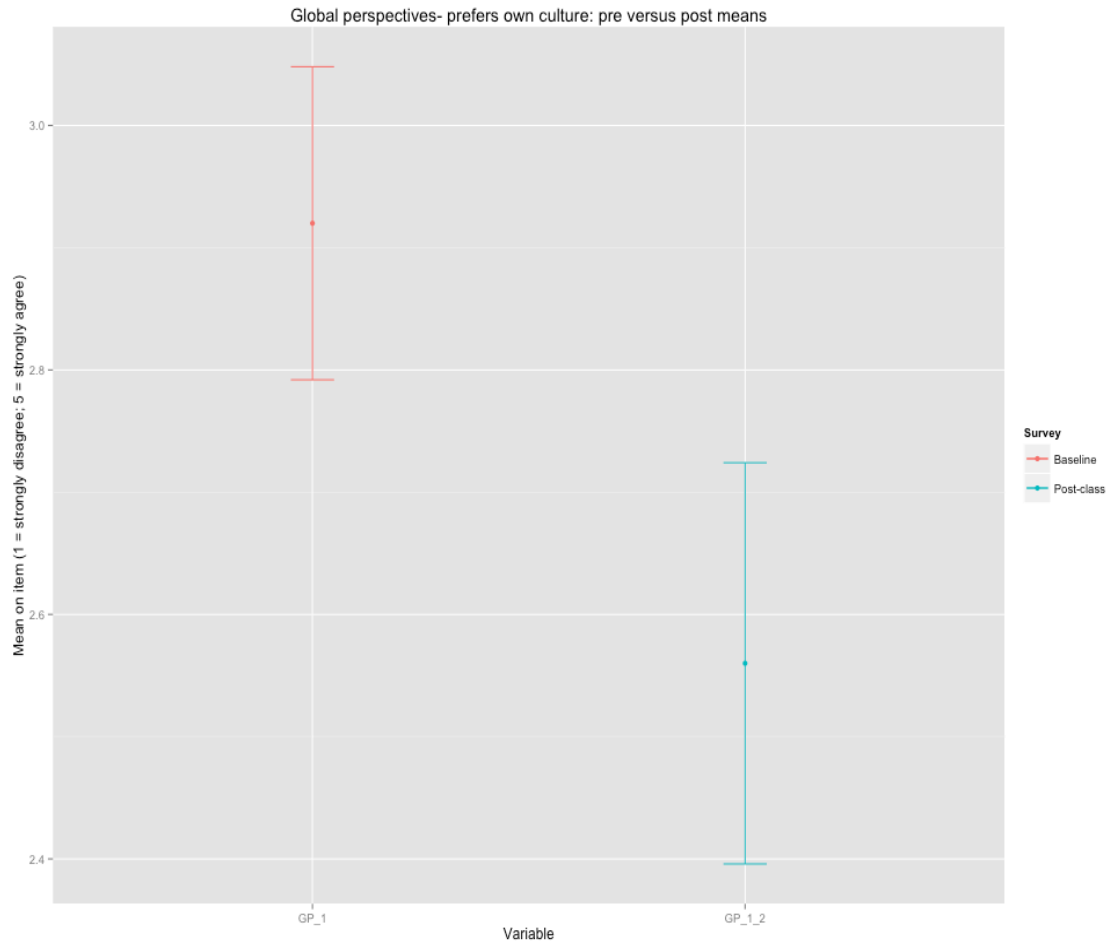
*Paired Samples Statistics GP\_1: How much do you agree or disagree with the following statements? When I notice cultural differences, my culture tends to have the better approach.*

		Mean	N	Std. deviation	Std. error mean
Pair 1	Week 1 – When I notice cultural differences, my culture is the best	2.9200	25	.64031	.12806
	Week 10 –When I notice cultural differences, my culture is the best	2.5600	25	.82057	.16411

Table 11

*Paired Samples Test GP 1: How much do you agree or disagree with the following statements? When I notice cultural differences, my culture tends to have the better approach.*

		Paired differences				t	df	Sig. (2-tailed)	
		Mean	Std. deviation	Std. error mean	95% confidence interval of the difference				
					Lower				Upper
Pair 1	Week 1 –When I notice cultural differences, my culture is the best Week 10 –When I notice cultural differences, my culture is the best	.36000	.81035	.16207	.02550	.69450	2.221	24	.036



*Figure 9.* Change in GP\_1 pre and post survey: How much do you agree or disagree with the following statements? When I notice cultural differences, my culture tends to have the better approach.

Crosstabulations were run to assess shifts between pre and post responses for GP\_1 (Table J2). A shift was observed toward higher values or frequency. Although the results from the corresponding McNemar test were not significant, it was observed that the decrease was consistent with the shift toward disagreement categories. For instance, three respondents moved in their answers from “Neutral” to “Strongly Disagree,” another three from “Neutral” to “Disagree,” and two from “Agree” to “Neutral.”

**Question GP\_6:** How much do you agree or disagree with the following statements? I am informed of current issues that impact international relations.

A significant increase was observed in GP\_6 from pre to post (3.52 vs. 3.84;  $t = -2.874$ ,  $p = .008$ ) (Tables 12 and 13). This increase was consistent with the crosstabulation below with McNemar test results significant at a 10% level (McNemar = 6.667,  $p = .083$ ) (Figure 10).

Table 12

*Paired Samples Statistics GP\_6: How much do you agree or disagree with the following statements? I am informed of current issues that impact international relations.*

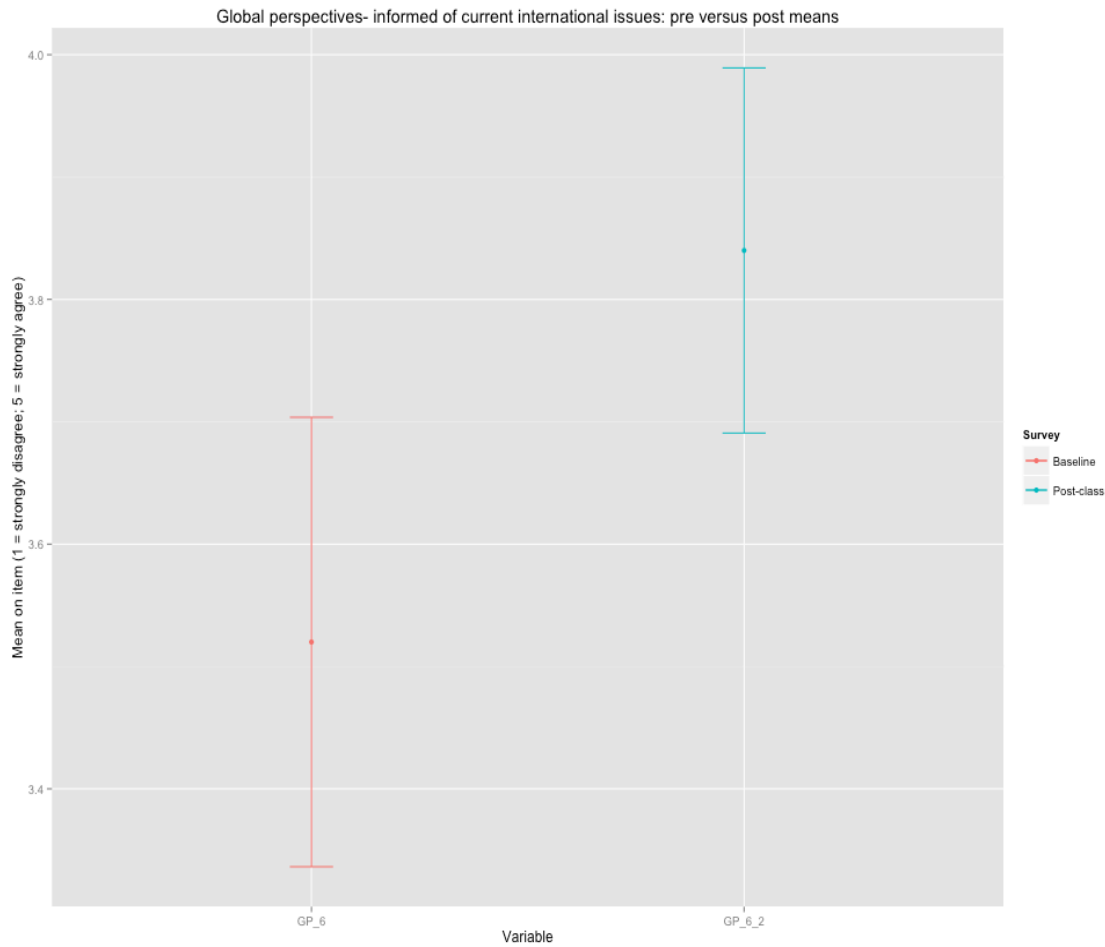
		Mean	N	Std. deviation	Std. error mean
Pair 1	Week 1 – I am informed of current issues that impact international relations	3.5200	25	.91833	.18367
	Week 10 – I am informed of current issues that impact international relations	3.8400	25	.74610	.14922

Table 13

*Paired Samples Test GP\_6: How much do you agree or disagree with the following statements? I am informed of current issues that impact international relations.*

		Paired differences				t	df	Sig. (2-tailed)	
		Mean	Std. deviation	Std. error mean	95% confidence interval of the difference				
					Lower				Upper
Pair 1	Week 1 – I am informed of current issues that impact international relations Week 10 – I am informed of current issues that impact international relations	-.32000	.55678	.11136	-.54983	-.09017	-2.874	24	.008





*Figure 10.* Change in GP\_6 pre and post survey: How much do you agree or disagree with the following statements? I am informed of current issues that impact international relations.

Crosstabulations were run to assess shifts between pre and post responses with GP\_6 (Table J3). A shift was observed toward higher values or frequency. It was observed that more respondents moved toward agreement. For instance, five respondents moved in their answers from “Neutral” to “Agree,” while only one respondent moved to a lower level, from “Agree” to “Neutral.”

**Question GP\_12:** How much do you agree or disagree with the following statements? I know how to analyze the basic characteristics of a culture.

A significant increase was observed only at a 10% level in GP\_12 from pre to post (3.32 vs. 3.64;  $t = -1.877$ ,  $p = .073$ ) (Tables 14 and 15).

Table 14

*Paired Samples Statistics GP\_12: How much do you agree or disagree with the following statements? I know how to analyze the basic characteristics of a culture.*

		Mean	N	Std. deviation	Std. error mean
Pair 1	Week 1 – I know how to analyze the basic characteristics of a culture	3.3200	25	.74833	.14967
	Week 10 – I know how to analyze the basic characteristics of a culture	3.6400	25	.63770	.12754

Table 15

*Paired Samples Test GP\_12: How much do you agree or disagree with the following statements? I know how to analyze the basic characteristics of a culture.*

	Mean	Std. deviation	Std. error mean	Paired differences		t	df	Sig. (2-tailed)
				95% confidence interval of the difference				
				Lower	Upper			
Pair 1 I know how to analyze the basic characteristics of a culture – I know how to analyze the basic characteristics of a culture	-.32000	.85245	.17049	-.67187	.03187	-1.877	24	.073

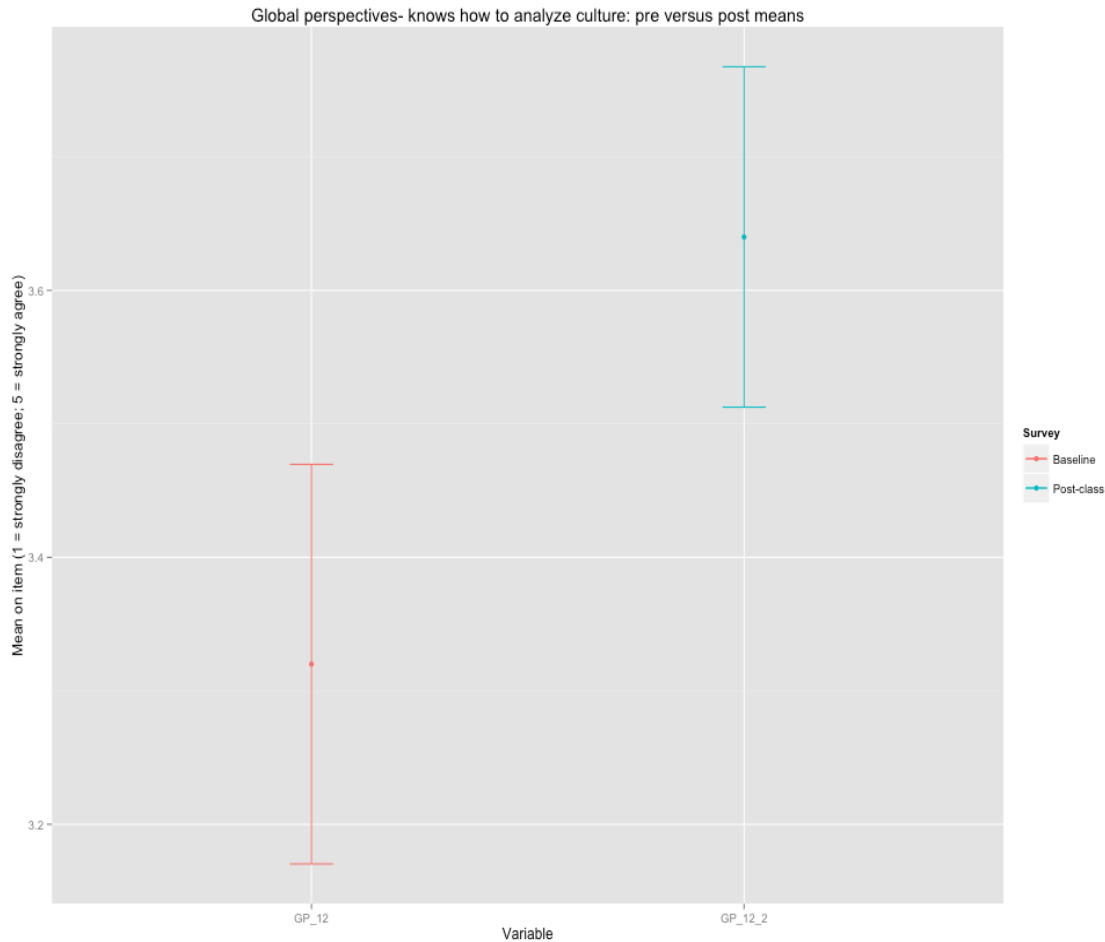


Figure 11. Change in GP\_12 pre and post survey: How much do you agree or disagree with the following statements? I know how to analyze the basic characteristics of a culture.

Crosstabulations were run to assess shifts between pre and post responses for GP\_12 (Table J4). A shift was observed toward higher values or frequency. It was observed that more respondents moved towards more agreement with the statement. Although the McNemar test could not be computed, the shift between categories indicated similar results. For instance, five respondents moved from “Neutral” to “Agree,” two from “Disagree” to “Neutral,” and another two from “Disagree” to “Agree” (Table J4).

**Question GP\_13:** How much do you agree or disagree with the following statements? I put the needs of others above my own personal wants.

A significant increase was observed in GP\_13 from pre to post survey data (3.52 vs. 3.84;  $t = -2.138$ ,  $p = .043$ ) (Tables 16 and 17).

Table 16

*Paired Samples Statistics GP\_13: How much do you agree or disagree with the following statements? I put the needs of others above my own personal wants.*

		Mean	N	Std. deviation	Std. error mean
Pair 1	Week 1 – I put the needs of others above my own perspective	3.5200	25	.87178	.17436
	Week 10 – I put the needs of others above my own perspective	3.8400	25	.62450	.12490

Table 17

*Paired Samples Test GP\_13: How much do you agree or disagree with the following statements? I put the needs of others above my own personal wants.*

		Paired differences				t	df	Sig. (2-tailed)	
		Mean	Std. deviation	Std. error mean	95% confidence interval of the difference				
					Lower				Upper
Pair 1	Week 1 – I put the needs of others above my own perspective Week 10 – I put the needs of others above my own perspective	-.32000	.74833	.14967	-.62890	-.01110	-2.138	24	.043

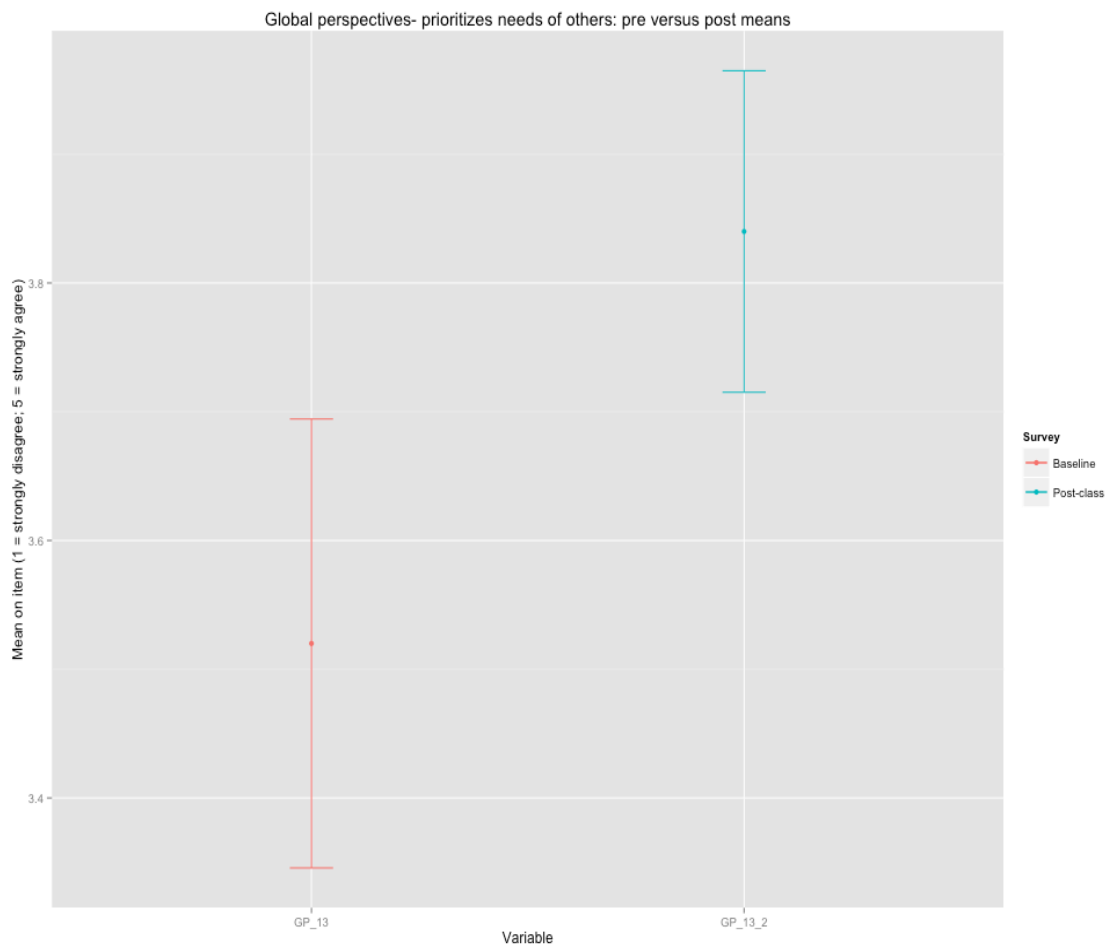


Figure 12. Change in GP\_13 pre and post survey: How much do you agree or disagree with the following statements? I put the needs of others above my own personal wants.

Crosstabulations were run to assess shifts between pre and post responses for GP\_13 (Table J5). A shift was observed toward higher values or frequency. Although the McNemar test could not be computed, this finding was consistent with the observed shift between categories toward agreement. For instance, five respondents moved from “Neutral” to “Agree,” two from “Disagree” to Neutral,” one from “Disagree” to “Agree” and two from “Agree” to “Strongly agree.” Three respondents moved toward lower values (disagreement).

**Question GP\_18:** How much do you agree or disagree with the following statements?

Volunteering is not an important priority in my life.

A significant increase was observed in GP\_18 from pre to post survey data only at a 10% level (2.2 vs. 2.4;  $t = -1.732$ ,  $p = .096$ ). It should be noted that because this item was reverse worded, an increase in the data indicated a decrease in global perspective (Tables 18 and 19).

Table 18

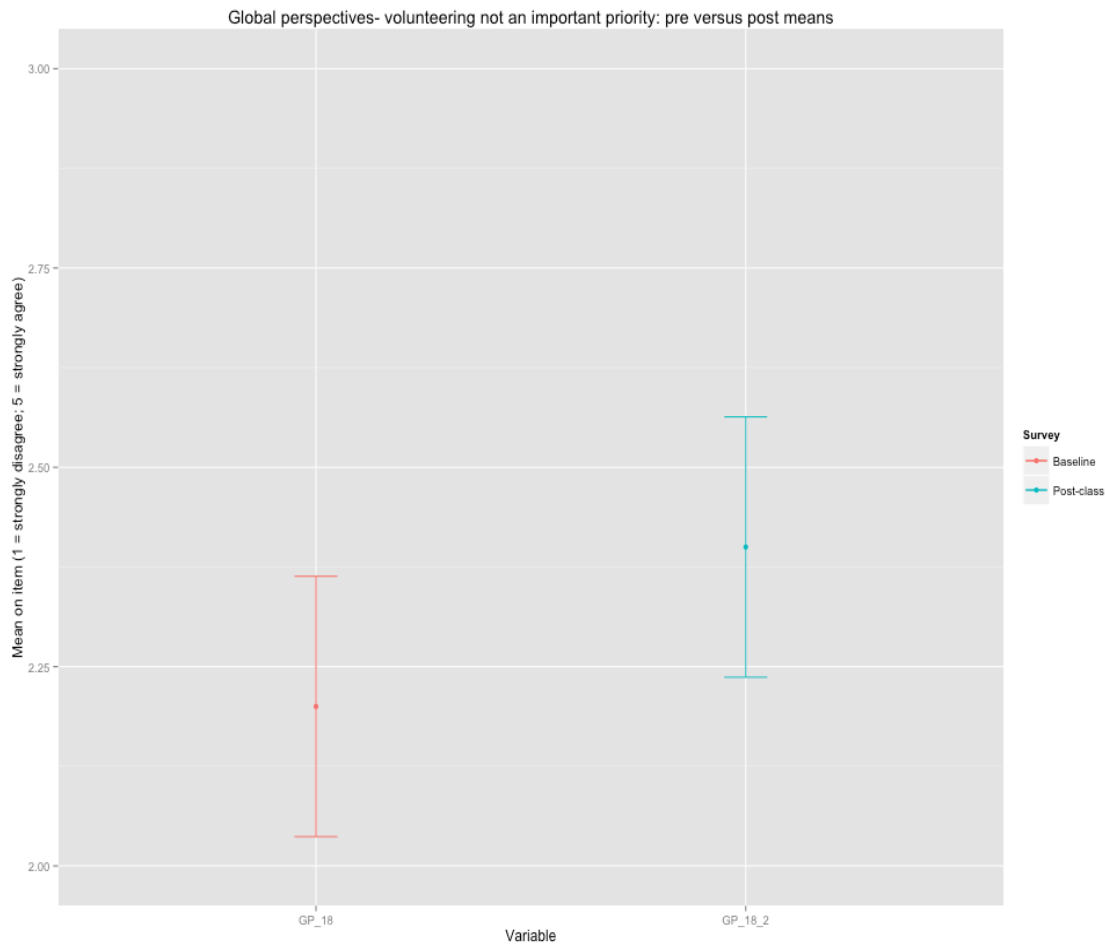
*Paired Samples Statistics GP\_18: How much do you agree or disagree with the following statements? Volunteering is not an important priority in my life.*

		Mean	N	Std. deviation	Std. error mean
Pair 1	Week 1 – Volunteering is not an important priority in my life	2.2000	25	.81650	.16330
	Week 10 – Volunteering is not an important priority in my life	2.4000	25	.81650	.16330

Table 19

*Paired Samples Test GP\_18: How much do you agree or disagree with the following statements? Volunteering is not an important priority in my life.*

		Paired differences				t	df	Sig. (2-tailed)	
		Mean	Std. deviation	Std. error mean	95% confidence interval of the difference				
					Lower				Upper
Pair 1	Volunteering is not an important priority in my life — Volunteering is not an important priority in my life	-.20000	.57735	.11547	-.43832	.03832	-1.732	24	.096



*Figure 13.* Change in GP\_18 pre and post survey: How much do you agree or disagree with the following statements? Volunteering is not an important priority in my life.

Crosstabulations were run to assess shifts between pre and post responses for GP\_18 (Table J6). A shift was observed toward higher values or frequency. The McNemar test result was not significant (McNemar = 3.667,  $p = .300$ ); however, the shift in responses suggested a move toward the increased direction. For example, seven respondents moved toward more agreement, compared with only two moving toward more disagreement.

**Civic Engagement**

**Question CE\_3:** Lead a group where people from different backgrounds feel welcomed and included.

There was a significant increase from pre to post for CE\_3 (4.88 vs. 5.36;  $t = -2.213$ ,  $p = .037$ ). Crosstabulations were not run because of the category size and row and column data were not equal.

Table 20

*Paired Samples Statistics CE\_3: Lead a group where people from different backgrounds feel welcomed and included.*

		Mean	N	Std. deviation	Std. error mean
Pair 1	Week 1 – Your ability to- lead a group where people from different backgrounds feel welcomed and included	4.8800	25	1.56312	.31262
	Week 10 – Your ability to- lead a group where people from different backgrounds feel welcomed and included	5.3600	25	1.07548	.21510



Table 21

*Paired Samples Test CE\_3: Lead a group where people from different backgrounds feel welcomed and included.*

	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. deviation	Std. error mean	95% confidence interval of the difference				
				Lower	Upper			
Pair 1 Your ability to- lead a group where people from different backgrounds feel welcomed and included – Your ability to- lead a group where people from different backgrounds feel welcomed and included	-.48000	1.08474	.21695	-.92776	-.03224	-2.213	24	.037

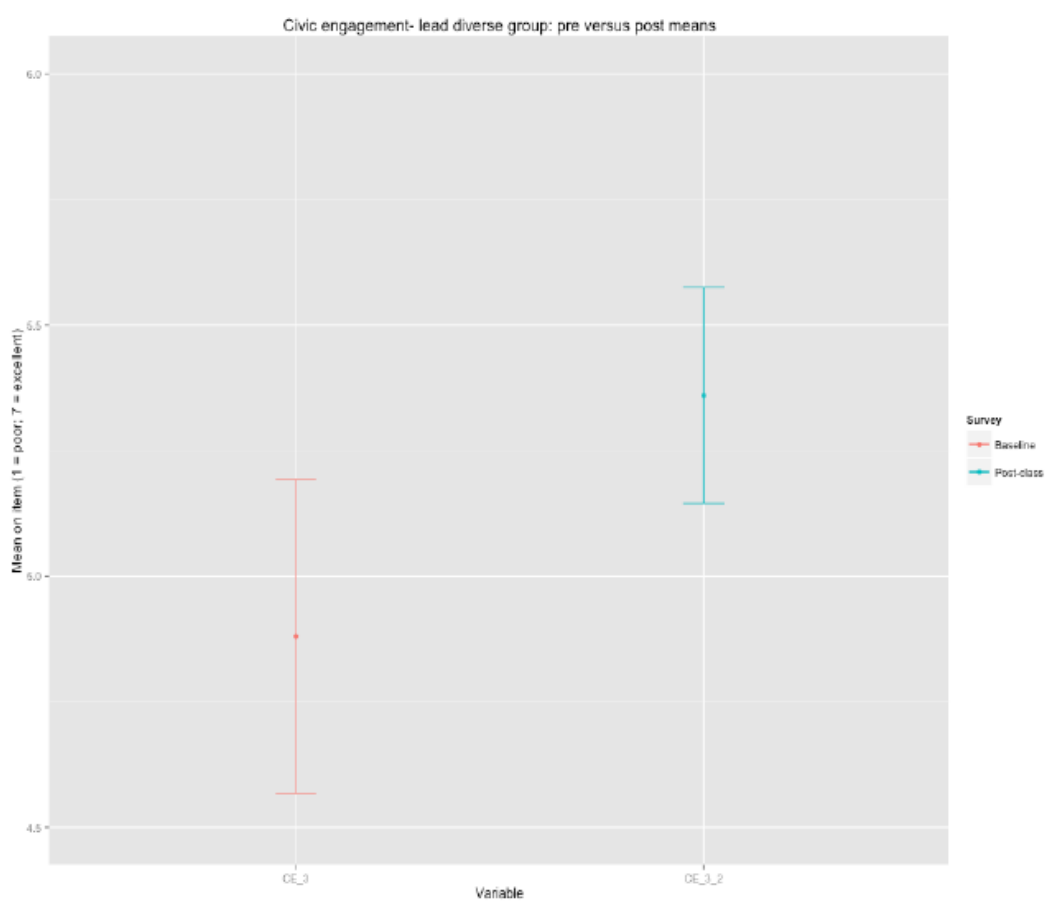


Figure 14. Change in CE\_3 pre and post survey

**Question CE\_4:** Lead a group where people from different backgrounds feel welcomed and included.

There was a significant increase from pre to post for CE\_4 significant only at a 10% level (4.76 vs. 5.28;  $t = -1.834$ ,  $p = .079$ ). Crosstabulations were not run because of the category size and because row and columns were was not equal (Tables 22 and 23).

Table 22

*Paired Samples Statistics CE\_4: Lead a group where people from different backgrounds feel welcomed and included.*

		Mean	N	Std. deviation	Std. error mean
Pair 1	Week 1 – Your ability to contribute to the well-being of your community	4.7600	25	1.20000	.24000
	Week 10 – Your ability to contribute to the well-being of your community	5.2800	25	1.24231	.24846

Table 23

*Paired Samples Test CE\_4: Lead a group where people from different backgrounds feel welcomed and included.*

		Paired differences				t	df	Sig. (2-tailed)	
		Mean	Std. deviation	Std. error mean	95% confidence interval of the difference				
					Lower				Upper
Pair 1	Week 1 – Your ability to- contribute to the well-being of your community Week 10 – Your ability to- contribute to the well-being of your community	-.52000	1.41774	.28355	-1.10522	.06522	-1.834	24	.079

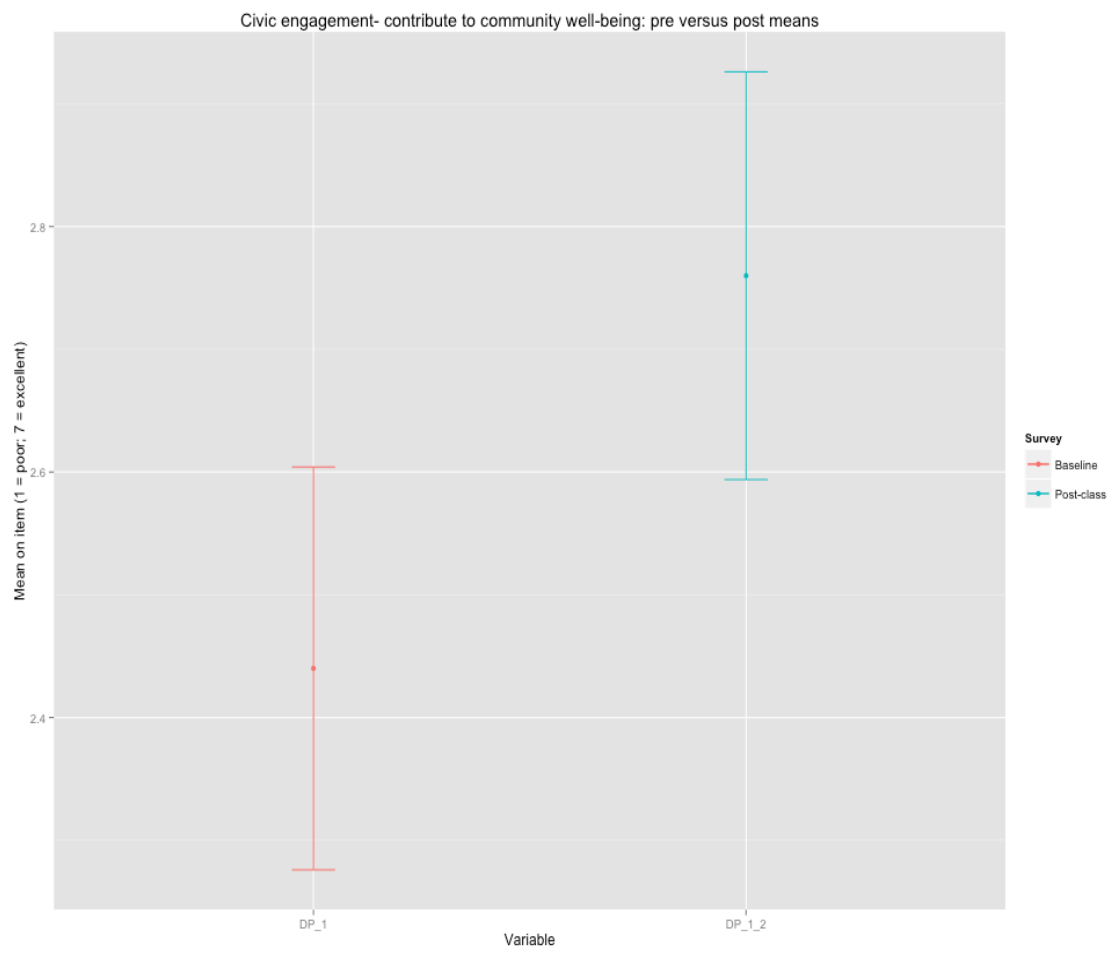


Figure 15. Change in CE\_4 pre and post survey: Lead a group where people from different backgrounds feel welcomed and included.

**Question CE\_13:** Whether course related or not, about how often have you organized others to work on local or campus issues?

A significant difference was observed in variable CE\_13, in the pre and post survey data (Tables 24 and 25). Significant differences between pre and post responses were found for CE\_13 (3.68 vs. 3.36;  $t = 2.138$ ,  $p = .043$ ).

Table 24

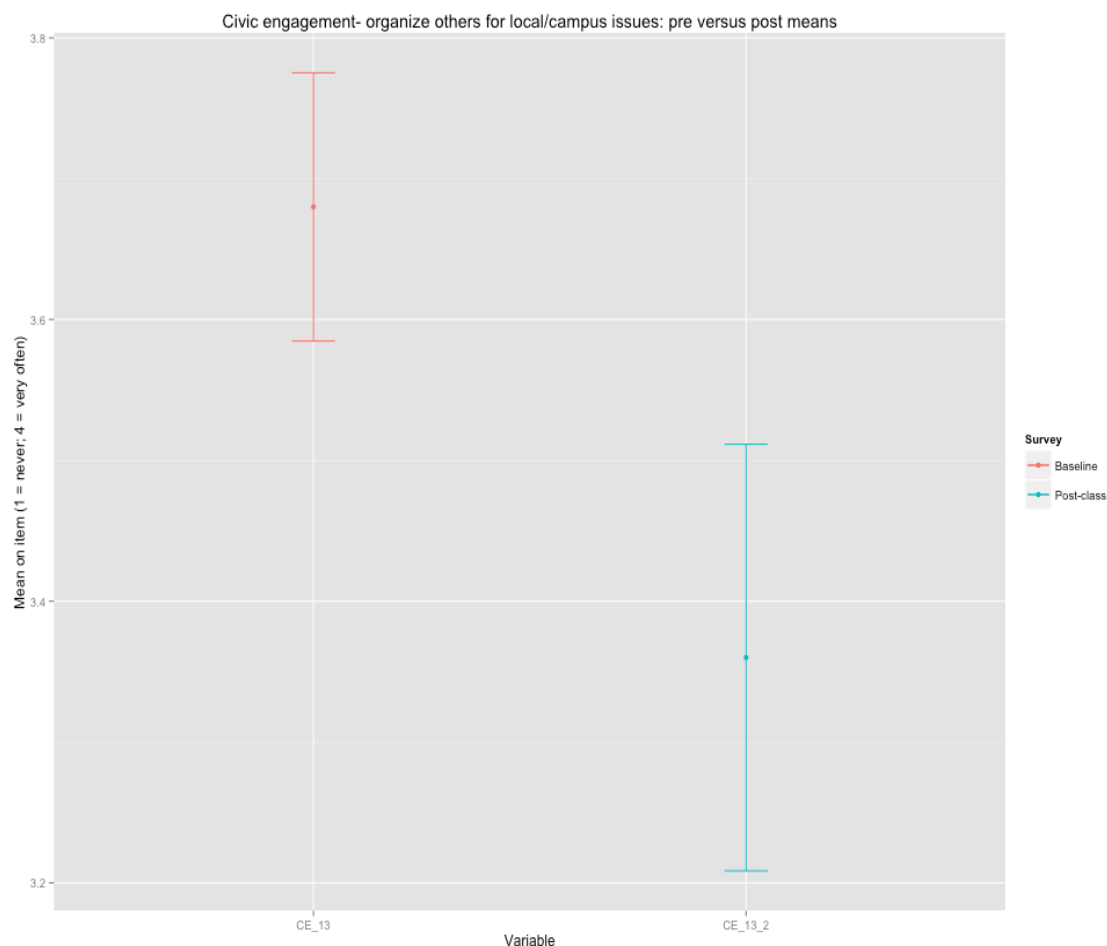
*Paired Samples Statistics CE 13: Whether course related or not, about how often have you organized others to work on local or campus issues?*

		Mean	N	Std. deviation	Std. error mean
Pair 1	Week 1 – How often organized others to work on local or campus issues?	3.6800	25	.47610	.09522
	Week 10 – How often organized others to work on local or campus issues?	3.3600	25	.75719	.15144

Table 25

*Paired Samples Test CE\_13: Whether course related or not, about how often have you organized others to work on local or campus issues?*

	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. deviation	Std. error mean	95% confidence interval of the difference				
				Lower	Upper			
Pair 1 Week 1 – How often organized others to work on local or campus issues? Week 10 – How often organized others to work on local or campus issues?	.32000	.74833	.14967	.01110	.62890	2.138	24	.043



*Figure 16.* Change in CE\_13 pre and post survey: Whether course related or not, about how often have you organized others to work on local or campus issues?

Crosstabulations were run to assess shifts between pre and post responses for CE\_13 (Table J7). In particular, three respondents moved from “Often” to “Sometimes,” six from “Very often” to “Often,” and one from “Very often” to “Sometimes.” Only three respondents moved toward higher values, from “Often” to “Very often.” Note that the McNemar test could not be computed.

**Question CE\_14:** Whether course related or not, about how often have you organized others to work on state, national, or global issues?

There was a significant decrease in CE\_14 from pre to post (3.76 vs. 3.32;  $t = 2.681$ ,  $p = .013$ ). This decrease was consistent with the shift in responses toward less frequent categories, indicated in the crosstabulations by the positioning of higher counts below the diagonal. Note that the McNemar test could not be computed (Tables 26, 27, and J8).

Table 26

*Paired Samples Statistics CE\_14: Whether course related or not, about how often have you organized others to work on state, national, or global issues?*

		Mean	N	Std. deviation	Std. error mean
Pair 1	Week 1 – How often organized others to work on state, national, or global issues?	3.7600	25	.52281	.10456
	Week 10 – How often organized others to work on state, national, or global issues?	3.3200	25	.85245	.17049

Table 27

*Paired Samples Test CE\_14: Whether course related or not, about how often have you organized others to work on state, national, or global issues?*

		Paired differences				t	df	Sig. (2-tailed)	
		Mean	Std. deviation	Std. error mean	95% confidence interval of the difference				
					Lower				Upper
Pair 1	Week 1 – How often organized others to work on state, national, or global issues? Week 10 – How often organized others to work on state, national, or global issues?	.44000	.82057	.16411	.10129	.77871	2.681	24	.013

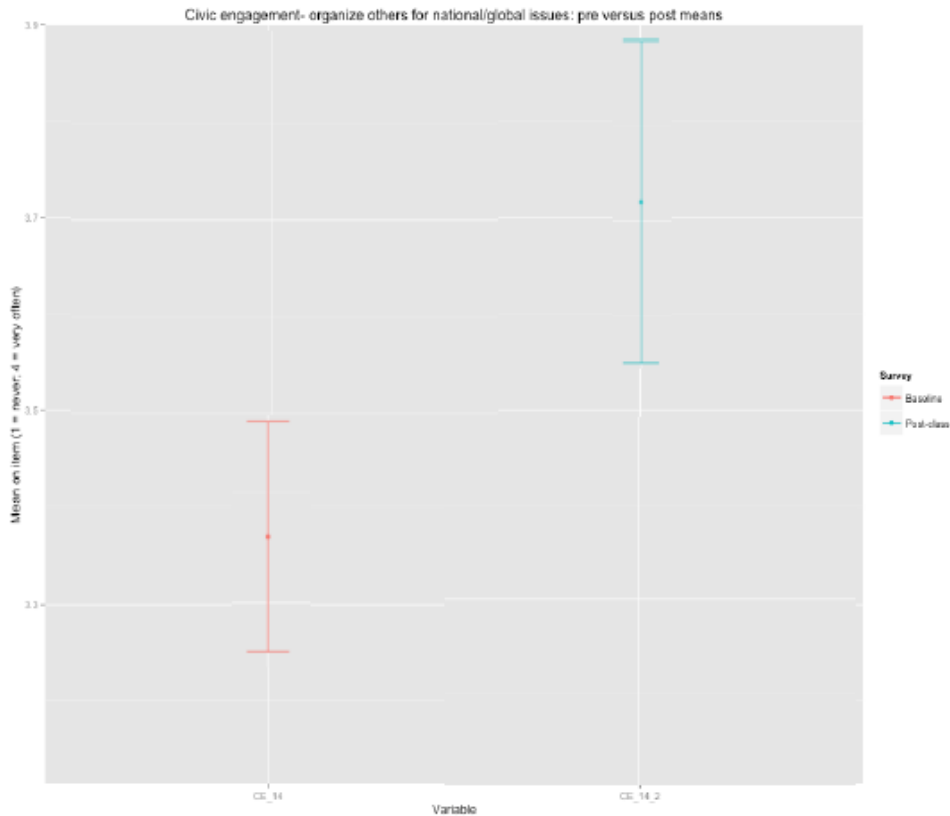


Figure 17. Change in CE\_14 pre and post survey: Whether course related or not, about how often have you organized others to work on state, national, or global issues?

### Transferable Skills

**Question TS\_2:** Whether course related or not, about how often have you made a speech to a group?

A significant difference was observed in variable TS\_2 in the pre and post survey data (Tables 28 and 29, Figure 18). Significant differences were found for TS\_2 responses at a 10% level with an increase in the average value for TS\_2 from pre to post (2.16 vs. 2.48;  $t = -1.877$ ,  $p = .073$ ).

Table 28

*Paired Samples Statistics TS\_2: Whether course related or not, about how often have you made a speech to a group?*

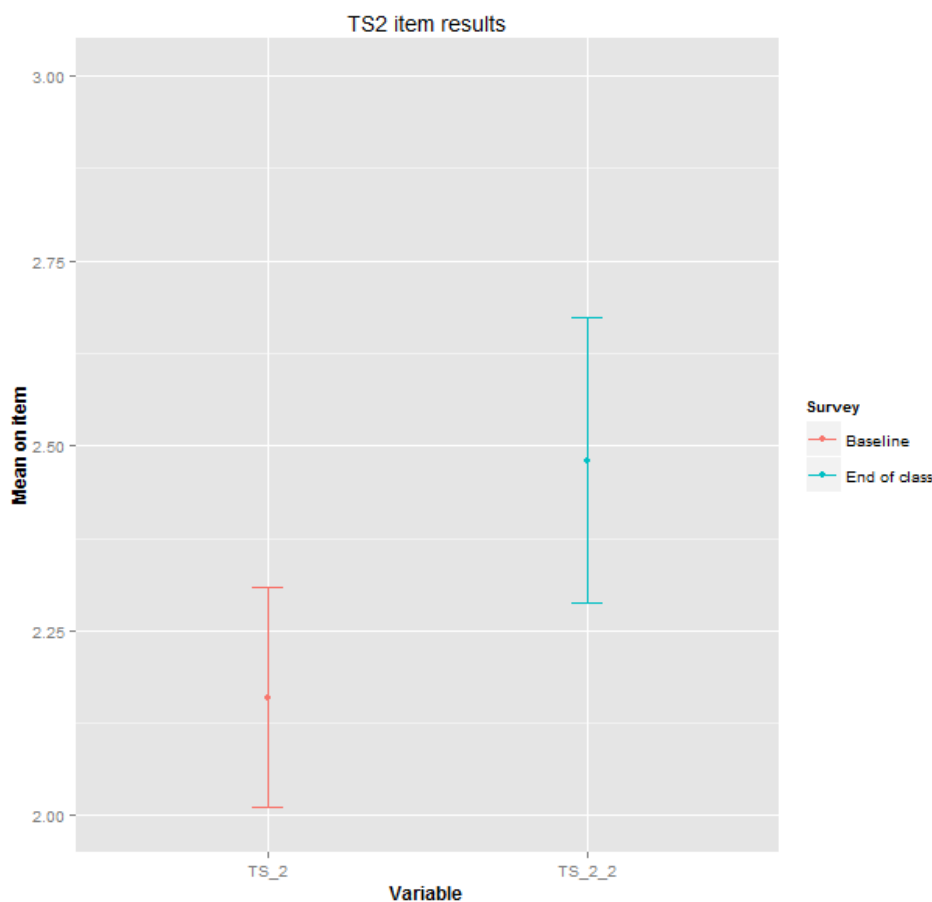
		Mean	N	Std. deviation	Std. error mean
Pair 1	Week 1 – Made a speech to a group	2.1600	25	.74610	.14922
	Week 10 – Made a speech to a group	2.4800	25	.96264	.19253

Table 29

*Paired Samples Test TS\_2: Whether course related or not, about how often have you made a speech to a group?*

		Paired differences				t	df	Sig. (2-tailed)	
		Mean	Std. deviation	Std. error mean	95% confidence interval of the difference				
					Lower				Upper
Pair 1	Week 1 – Made a speech to a group Week 10 – Made a speech to a group	-.32000	.85245	.17049	-.67187	.03187	-1.877	24	.073





*Figure 18.* Change in TS\_2 pre and post survey: Whether course related or not, about how often have you made a speech to a group?

Crosstabulations were run to assess shifts between pre and post responses for TS\_2 (Table J8). The McNemar test was significant, which means there was a significant shift in responses from pre to post. (McNemar = 11.333,  $p = .045$ ). More respondents moved toward higher values as represented in the crosstabulation by the higher counts above the diagonal. For example, five respondents moved from “Sometimes” to “Often” and four moved from “Often” to “Very often.”

## Course Engagement

**Question E\_13:** To what extent have courses allowed you to learn effectively on your own, so you can identify, research, and complete a given task?

Between pre and post survey data, only at a 10% level was a significant increase observed in E\_13 responses (3.28 vs. 3.48;  $t = -1.732$ ,  $p = .096$ ) (Tables 30 and 31).

Table 30

*Paired Samples Statistics E\_13: To what extent have courses allowed you to learn effectively on your own, so you can identify, research, and complete a given task?*

		Mean	N	Std. deviation	Std. error mean
Pair 1	Week 1 – Contributed to your learning effectively on your own	3.2800	25	.54160	.10832
	Week 10 – Contributed to your learning effectively on your own	3.4800	25	.50990	.10198

Table 31

*Paired Samples Statistics E\_13: To what extent have courses allowed you to learn effectively on your own, so you can identify, research, and complete a given task?*

		Paired differences				t	df	Sig. (2-tailed)	
		Mean	Std. deviation	Std. error mean	95% confidence interval of the difference				
					Lower				Upper
Pair 1	Week 1 – Contributed to your learning effectively on your own Week 10 – Contributed to your learning effectively on your own	-.20000	.57735	.11547	-.43832	.03832	-1.732	24	.096

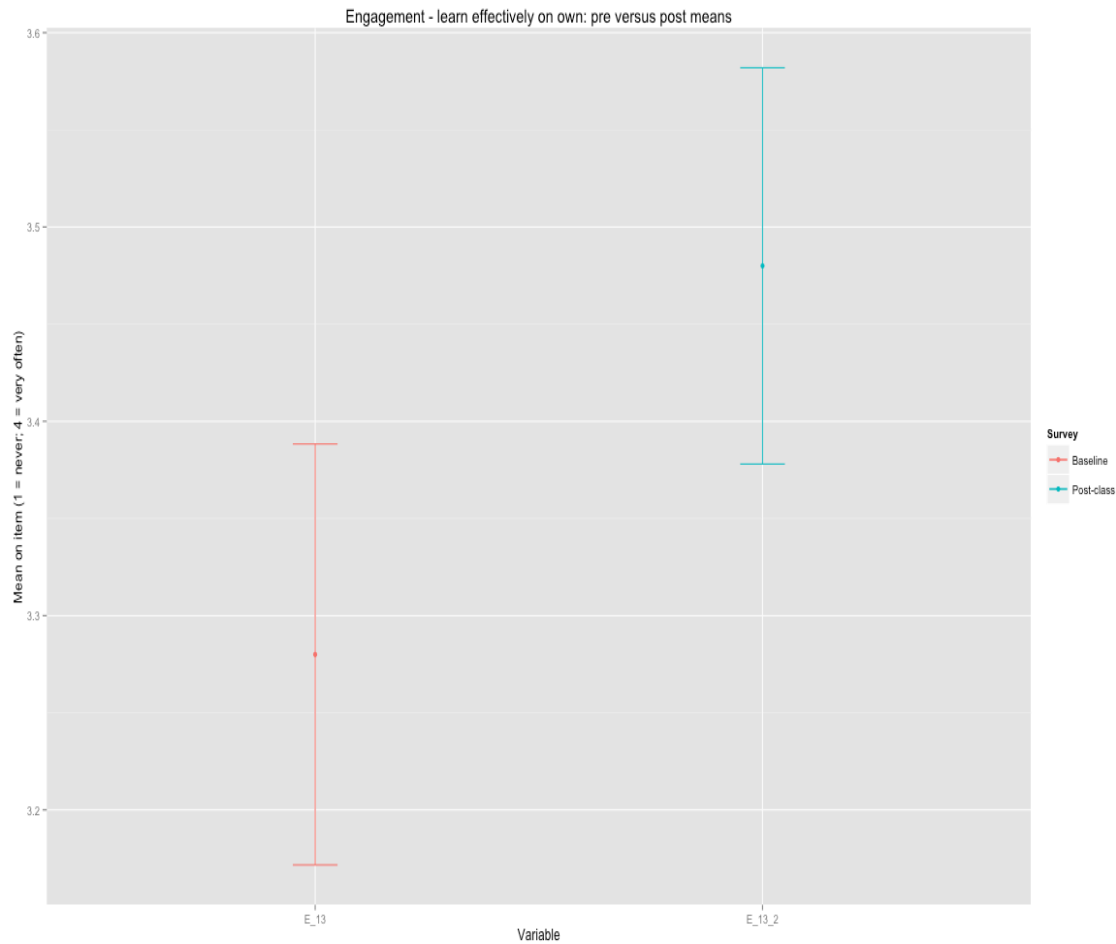


Figure 19. Change in E\_13 pre and post survey: To what extent have courses allowed you to learn effectively on your own, so you can identify, research, and complete a given task?

Crosstabulations were run to assess shifts between pre and post responses for E\_13 (Table J10). A shift was observed toward higher values or frequency. The McNemar test could not be computed. The shift in responses demonstrated a change toward agreement. Six respondents moved from “Often” to “Very often” and one from “Occasionally” to “Often.” Moreover, only two subjects moved from “Very often” to “Often.”

## Relationship between Demographic Variables and Skill Gain

Independent t-tests were utilized for binary categorical variables. Mann-Whitey U tests were run to address the small sample size of non-parametric equivalent tests. Additionally, for non-binary variables such as the course variable, the non-parametric equivalent of a one-way ANOVA, Kruskal-Wallis test was utilized. Significant results were reported.

### Gender and Transferable Skills

There was a significant difference at a 10% level for transferable skill gain across gender (Tables 32 and 33). Women showed a positive gain compared to men, who showed a negative average gain. (2.4 vs. -0.933;  $t = 1.745$ ,  $p = .093$ ). The sample size was disproportionate: 60% of the respondents were male ( $n = 15$ ) and 40% were female ( $n = 10$ ).

Table 32

#### *Transferrable Skill Group Statistics – Gender*

	Gender of student	N	Mean	Std. deviation	Std. error mean
TS gain	Female	10	2.4000	5.14674	1.62754
	Male	15	-.9333	4.35015	1.12320

Table 33

#### *Independent Samples Test for Gain in Transferable Skills*

		Levene's Test for equality of variances		T-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% confidence interval of the difference	
									Lower	Upper
TS	Equal variances assumed	.393	.537	1.745	23	.094	3.33333	1.90980	-.61739	7.28406
	Equal variances not assumed			1.686	17.118	.110	3.33333	1.97749	-.83662	7.50328

### CIVC101: Skill Gain

Significant differences regarding GP gain and E gain were found for CIVC101: respondents who answered “yes” to CIVC101 showed an average GP gain of 2.72, compared with those answering “no” to CIVC101, who showed an average gain (or loss) of -1.71 ( $t = 2.339$ ,  $p = .028$ ). Regarding E gain, a change in the same direction was observed with averages for the respective CIVC101 groups of 1.5 and -4.14 ( $t = 2.24$ ,  $p = .035$ ). The results obtained with the t-test were consistent with those obtained with the Mann-Whitney U test (p-values  $p = .029$  and  $p = .025$ ) (Table 36). No significant associations were found for Co-Op students (those who have completed their cooperative education experience) or CBL students (those who have participated in a community-based learning course in the past). Finally, the Kruskal-Wallis test was performed to look at differences in skill gain across the different courses and no significant differences were found.

Table 34

*Group Statistics for CIVC101 Variable – GP Gain and E Gain*

	Has the student taken CIVC101?	N	Mean	Std. deviation	Std. error mean
GP	Yes	18	2.7222	3.92287	.92463
	No	7	-1.7143	5.08967	1.92372
E	Yes	18	1.5000	5.80314	1.36781
	No	7	-4.1429	5.20988	1.96915

Table 35

*Independent Samples Test – GP Gain and E Gain*

		Levene's Test for equality of variances		T-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% confidence interval of the difference	
									Lower	Upper
GP	Equal variances assumed	.222	.642	2.339	23	.028	4.43651	1.89675	.51279	8.36023
	Equal variances not assumed			2.079	8.924	.068	4.43651	2.13439	-.39806	9.27108
E	Equal variances assumed	.362	.553	2.240	23	.035	5.64286	2.51866	.43261	10.85311
	Equal variances not assumed			2.354	12.186	.036	5.64286	2.39760	.42775	10.85796

Table 36

*Ranks for GP and E Gain*

		Has the student taken CIVC101?	N	Mean rank	Sum of ranks
GP	Yes		18	15.00	270.00
	No		7	7.86	55.00
	Total		25		
E	Yes		18	15.03	270.50
	No		7	7.79	54.50
	Total		25		

**Test Statistics for Ranks for GP and E Gain<sup>a</sup>**

	GP gain	E gain
Mann-Whitney U	27.000	26.500
Wilcoxon W	55.000	54.500
Z	-2.189	-2.220
Asymp. Sig. (2-tailed)	.029	.026
Exact Sig. [2*(1-tailed Sig.)]	.029 <sup>b</sup>	.025 <sup>b</sup>

a. Grouping variable: Has the student taken CIVC101?

b. Not corrected for ties

## **Summary**

Pre and post surveys were administered to Drexel students enrolled in three spring-term Side-by-Side courses. The response rate was 82.9%, with a total sample size of 29 respondents. Composite scores were created for the four 21st-century skills and for course engagement. No statistically significant change in skill was observed in the data. Paired t-tests demonstrated that 12 individual items were significantly different. Crosstabulation was utilized to further analyze the responses to individual questions. Independent demographic variables were analyzed to determine skill development. Women showed an increase gain in transferable skills while men showed a negative average gain. Regarding the areas of global perspectives and course engagement, significant differences were found for the students who completed a CIVC101 course. No significant associations were found for Co-Op or CBL. The quantitative and qualitative data measured course engagement and the four 21st-century skills throughout the three Side-by-Side courses.

## **Qualitative Results**

### **Interview Data**

Paired student groups, composed of one traditional Drexel student and one community student, were qualitatively interviewed. Two student pairs from each of the three Side-by-Side courses were interviewed for a total of six paired interviews. A narrative research approach was utilized and each pair was asked to describe their learning experience by answering five semi-structured questions about their experience and perception of the Side-by-Side course (see Appendix B).

The data collection took place at Drexel's urban education extension center located on the border of Mantua and Powelton Village, four blocks from the university's main campus.

Drexel and community students were enrolled in one of three courses, each covering different disciplines: (a) History of Philadelphia (history), (b) Philadelphia Stories (literature), or (c) Techniques of Speaking (communication). Community students self-selected and registered for participation in a Side-by-Side course, and they confirm their registration seat by attending an orientation scheduled the week prior to the course.

A purposeful sampling methodology was utilized to identify student pairs. A critical case strategy was employed and the course professor referred four students—two Drexel students and two community students—to be interviewed. The professor was asked to refer students who were present and engaged in the course throughout the term. Students were informed both verbally and by written consent that their decision to participate in the interview would have no effect on their grade. Additionally, students were informed that the transcript of their interview would not be shared with their professor. Student pairs were interviewed in a quiet, private room located at the extension center, and held outside their scheduled course period.

The interviews were transcribed and analyzed in ATLAS ti using a priori codes to identify the four 21st-century skills:

1. Experience with diversity;
2. Global perspectives;
3. Civic engagement; and
4. Transferable skills.

Comments or insight referring to course engagement were also transcribed and analyzed in ATLAS ti. Emergent themes regarding course engagement and each of the four 21st-century skills were identified from transcription and ATLAS ti analysis. The researcher defined an utterance as the discussion of a code concept within the interview. Enumerations of the qualitative interview data results are provided in Table 37.



Table 37

*Interview Code Distribution*

Code	Frequency (n = utterance)
Experience with diversity	n = 46
Global perspectives	n = 3
Civic engagement	n = 26
Transferable skills	n = 25
Course engagement	n = 32

### **Experience with Diversity**

Enumeration of the data demonstrated that the a priori code assigned to “experience with diversity” was the most pronounced (n = 46). The analysis resulted in the identification of five emergent themes: (a) age, (b) perspective, (c) two distinct groups, (d) life experience, and (e) learning to listen (see Figure 20).

The first emergent theme, age, was a widespread aspect of the course (n = 16). Throughout the interviews both community and university students overtly commented on the value of a multi-generational class. A community student enrolled in the communication course stated, “It’s a lot of diversity. There’s a great difference in ages. Most of the students here are old enough to be my children, and I love it” (Communication course). There were different reasons why age was a significant experience of diversity theme within the three courses. At points students articulated the unique perspectives of other generations. Additionally, each generation was described as offering unique skills to the course. For example, during an interview, a senior community student commented about a time her phone rang during the Side-by-Side class.

Embarrassed for disrupting the presentation, the older woman was relieved when a university student leaned over and taught her how to silence her phone. The community student recounted the event and said:

When I came in, I saw a lot of Drexel students, and the age gap, but I learned from them. Certain things on the computer, just like when my phone went off, I was trying to hit it. She just reached over and touched it, and that was it. You learn you don't have to be nervous and pound on things. You learn from them. They are more computer-savvy.  
(Communication course)

Drexel students also articulated the importance of the older generations' contribution to the course. Overwhelmingly, university students in all three courses described the worth of their elder colleagues' stories and how they enhanced the course content and learning. A Drexel student enrolled in the literature course explained:

People are typically similar age ranges and think like that so opinions were pretty similar I would say in my undergraduate career. So now that there's people of various ages it's like a melting pot of thoughts and this is magical in itself. (Literature course)

The theme of perspective emerged as the second theme within the experience with diversity-coded data (n = 14). Experience with diversity appears to have provided multiple perspectives throughout each of the three courses. Both community and university students reported having valued the opinions and viewpoints that were different from their own. Moreover, different perspectives that arose from the experience of diversity appeared to have had a formidable impact on students' education. A university student enrolled in the communication course commented:

It's completely different because of the collaborative nature and because of the diversity of the makeup of the class. I get a lot of different perspectives. I'm very used to hearing the same things from different people in all of my courses because we've all been learning the same curriculum. This [Side-by-Side course] is a really unique experience for me to hear normal people who don't study criminal justice . . . their opinion on these matters. I think it's really important for me to take with me as I continue to remember that there's more than just the opinions being expressed in my [traditional] classes.

(Communication course)

Overall, the respondents described the diverse perspective of the Side-by-Side as something that enhances the course content, providing an alternative form of knowledge and largely enriching the course experience.

The third theme that emerged from the experience with diversity-coded data was a distinction between two groups of students: student and community (n = 10). Student pairs who were interviewed recognized the value of diversity; nonetheless, they often still referred to the class in terms of those two distinct groups. It is important to note that both the Drexel students and community students share the same physical space in West Philadelphia encompassing the university. There is a history of tension between the university and the residents that has created a culture of "them" and "us." This theme was evident when student interview pairs described their learning in the Side-by-Side course, referring to one another as "groups" and very clearly articulating a need for the two diverse groups to come together. A community student commented, "It's a lot more getting to know who your classmates are because there is a need to have the community interact with the students" (Communication course). Furthermore, when a

Drexel student was asked if there is anything else the researcher should know about the course format, he explained:

I think the relationships have become strained there [in the West Philadelphia neighborhoods of Mantua and Powelton Village], and I think it's a really tough dynamic and balance that you have to strike between the community and the campus. The more you get engagement between the two it's really important. (History course).

Students' experience with the "other group" appears to not only have enriched the course content, but also suggests that it created a space for the two often oppositional groups to come together as one community.

The fourth emergent theme, life experience, appeared to be interwoven with the multi-generational composition of the course (n = 5). Drexel students especially articulated the value of mature classmates' life experiences and the effect it had on course content. Just as community students learned skills from the university students, Drexel students gained tremendous insight from the life stories of their colleagues. This insight was often described as a valuable, or more valuable, form of academic content. A student explained the importance of a diverse classroom:

We're in this society that kind of is prejudice and favored academic learning, like book learning. I think that . . . even if somebody who's obviously on that track, wants a PhD and stuff like that. I feel like there are other kinds of [*inaudible*] other kinds of learning and I feel like this is the kind of course where you can get that from other people and people who maybe aren't "educated" in that kind of standard way can also take a class like this and contribute and be speaking and be equals instead of being looked down on. I think that was really cool. (Literature course)

The final emergent theme, learning to listen, was not a pervasive theme within this code; however, the three utterances expressed nearly verbatim the theme's title and are therefore worth mentioning (n = 3). Students clearly articulated that their experience with diversity in the course taught them to listen. Listening to diverse opinions and verbal fluencies appears to have been an unintended outcome of the course format. A community student explained:

Well, you learn to listen. Your parents would teach you to listen, but then you're in class and you're with other people and the teacher is telling you to listen. [The Side-by-Side course is] altogether different; you learn to listen and you learn from each other.

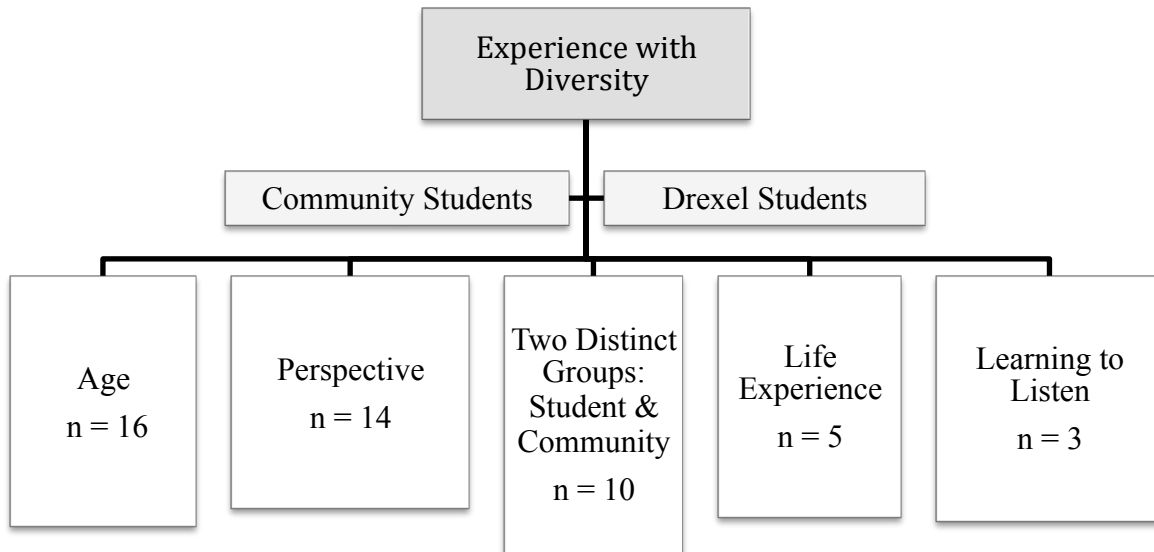
(Communication course)

One university student described learning to listen to students with diverse abilities as a skill, stating, "You learn to listen to two different types of people, where one would be more difficult to listen to, and you have to pay closer attention to. I learned a lot" (Communication course).

Emergent themes and the analysis of the data revealed that experience with diversity was an integral aspect of the course (n = 46). Five emergent themes were identified and analyzed to enhance the context of course engagement within the interview data.

Overall, experience with diversity appears to be a powerful aspect of the Side-by-Side course as demonstrated by its greatest prevalence in the code enumeration (n = 46). Five emergent themes enhance the context of the experience of diversity. Remarkably, in the context of experience with diversity, issues of race and class were not mentioned in any of the six-paired interviews. It should be noted that the Drexel students and community students enrolled in the courses were all racially and economically diverse (see Figure 21). University and community students appear to have valued the opportunity to learn with multiple generations of learners and

people with different life experiences and perspectives. Furthermore, the course experience with diversity appeared to address a historic tension within a shared physical space between community groups of longtime residents and transient students in their shared space.



n = utterance coded within interview

*Figure 20.* Interview themes for experience with diversity



*Figure 21.* Picture of literature course students and faculty member

### **Global Perspectives**

Global perspectives were not significantly reflected within the paired student interviews ( $n = 3$ ). There was brief mention of different worldviews in the paired interviews; however, this did not emerge as noteworthy theme.

### **Civic Engagement**

There were 26 utterances ( $n = 26$ ) coded as “civic engagement” within the interviews. From this data, five emergent themes were identified and analyzed: (a) engaged with civic structures and leaders, (b) enhanced course content and academic information, (c) new perspective of city, (d) motivated to become civically engaged, and (e) course format as outreach effort (see Figure 22).

In the first emergent theme, students described themselves physically in the community, engaging with civic structures ( $n = 9$ ). Students in all three courses described the task of

interviewing local civic leaders and visiting historical landmarks. After participating in a walking history tour of Philadelphia, a Drexel student commented:

The field trips we took I think were really nice, getting out of the classroom. I know Mother Bethel Church, I probably would have just walked past it like it's just another church [without] historic significance, but you get in there and see the story and see people connect with that, just that and I think the oral history project, and then seeing how we all took different paths with that, and we all kind of brought it together to give a really good history of the city. I liked that part. (History course)

Furthermore, in the second emergent theme, students described how civic engagement enhanced the course content (n = 6). The experience with community leaders or the immersion in the city enriched the academic content. For example, a communication student stated:

City Hall meetings we were encouraged to attend. That was getting me engaged in the politics of the city. I was able to focus on different things than I normally would in order to promote my knowledge of public speaking. (Communication course)

The third emergent theme from the civic engagement data revealed a new perspective of the city (n = 5). Drexel and community students both described seeing their community differently as a result of the course's civic engagement. Students from all three courses explained that many aspects of their community were overlooked prior to their course experience. One student commented on how much he learned about the city in which he has lived for the past five years:

. . . but even more important for me, starting to see things in Philadelphia differently like certain things that are called a certain way. [*Inaudible*] . . . learning about the murals, a little bit of background. Now when I walk through the city and I'm with my friends I can



tell them, “Oh, do you know when that mural was painted?” Or, “Oh do you know that Du Bois lived right there? Or had his office right there?” Seeing Philadelphia and knowing more about it from the things we read but also from when we had our walking tours. Those things combined for me. (History course)

Moreover, in regard to the fourth emergent theme, community and Drexel students described feeling motivated to become civically engaged after the course experience (n = 4). A community student explained that her previous participation in an urban farming Side-by-Side course two years ago motivated her to maintain a garden plot in her community. Building upon her first Side-by-Side course, the student discussed her garden in the context of how she will incorporate her new knowledge of the city into her community. A Drexel communication course student explained how they were encouraged to attend public community meetings to observe public speaking styles.

The final emergent theme within the coded civic-engagement data revealed that in interviews students identified the course structure as an outreach effort (n = 12). Community students articulated that historically the university has not been viewed as a good neighbor, but that participation in the Side-by-Side course allowed longtime residents and university students the opportunity to converse, share, and learn together. Community students described the Side-by-Side course as a civic engagement outreach effort to residents. A Mantua senior citizen enrolled in the literature course discussed how isolated he had felt from the university for much of his life, explaining:

I think that I really appreciate Drexel University for reaching out to the community and bringing this type program to the floor, because when I was a kid I actually lived within a block and a half of Drexel University’s football field and the university at that particular

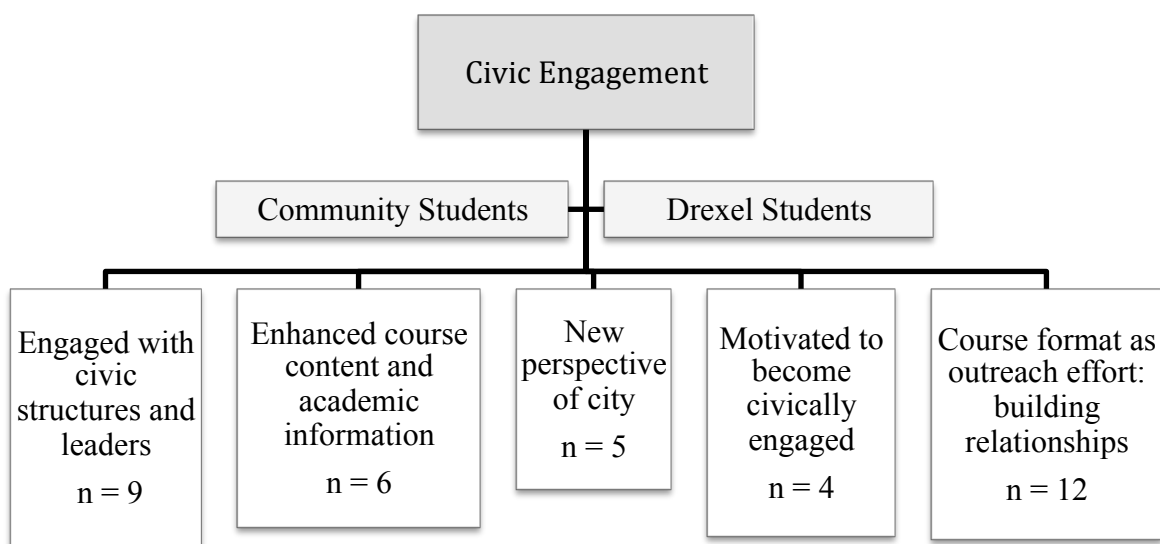
time in the 40s and 50s was distant. Now there's things to the outreach program, the side-by-side things are different. (Literature course)

Moreover, Drexel students described “getting to know their neighbors” as a result of the course format. Drexel students very often live in the Mantua and Powelton Village neighborhoods, yet never interact with their non-student neighbors. One Drexel student commented that the course allowed her to engage with her surroundings:

I find a lot of times when you're at universities you get trapped in a bubble, and it's just a way to break that bubble and actually get engaged with the community that's actually around the campus. (History course)

Emergent themes and the analysis of the data revealed that civic engagement was generally reported as an integral aspect of the course. Both community and Drexel students explained that civic engagement was a unique aspect of the Side-by-Side format, with engagement opportunities built into the course structure, either as assignments or as part of in-class instruction.

Civic engagement was described as both a feature and a result of the course format. This occurred in two ways. First, despite sharing a physical location and neighborhood, community and Drexel students reported that they traditionally have not intentionally interacted in a meaningful way and that the process of learning together led both student groups to engage with people whom they previously had not encountered. Second, both types of students credit the practices of active learning and leaving the classroom with introducing them to civic structures that both enhanced their learning and introduced them to people and places in the city they had otherwise not known existed.



N = utterance coded within interview

*Figure 22.* Interview themes for civic engagement

### Transferable Skills

The interview data was coded using the a priori code for transferable skills (n = 25). There were four emergent themes that appeared from the paired interview data: (a) critical thinking, (b) workplace skills, (c) analytical inquiry, and (d) verbal fluency (see Figure 23).

The first emergent theme, critical thinking, was not a recurrent utterance (n = 2). This enumeration may directly reflect a student's conscious identification of critical thinking; therefore; one may infer that this skill often goes unrecognized by students and consequently is not represented in the self-reported interview data. Those students who did communicate that they utilized critical thinking attributed it to the course format. One community student stated, "The collaborative nature allows for critical thinking, which is awesome and great because you get to analyze things differently too" (Communication course).

Student pairs often described emergent theme two, workplace skill, in terms of learning to listen (n = 5). Learning to listen to others is arguably a skill that is useful in the workplace. It is particularly the experience with diversity that appears to have taught students the skill of active listening.

The third emergent theme, analytical inquiry, was described as a result of both the course format and assignments (n = 5). Students described higher-order, analytical learning as required to complete the course requirements. A senior Drexel student in the history class was asked how he would describe the Side-by-Side course to someone and he answered:

I think it is a lot less regurgitation information or facts or like memorization. I think, because I'm a science major and a lot of the science courses are just, "You have these terms. Memorize them," and everything, but a lot of this was connecting themes and ideas, and looking kind of like the overall bigger picture. (History course)

Drexel students reported that the analytical inquiry they experienced in this course format was unique in their undergraduate experience. Furthermore, the community students who were interviewed also reported that the need for such analysis was different from their experience in education. A community student in his eighties described his learning within the Side-by-Side course:

For instance, when I was in school there was no such thing, to my knowledge, as a response paper. If there were a response paper being utilized, I never came to contact with it. Basically, just drumming up your footnotes and your bibliography. (Literature course)

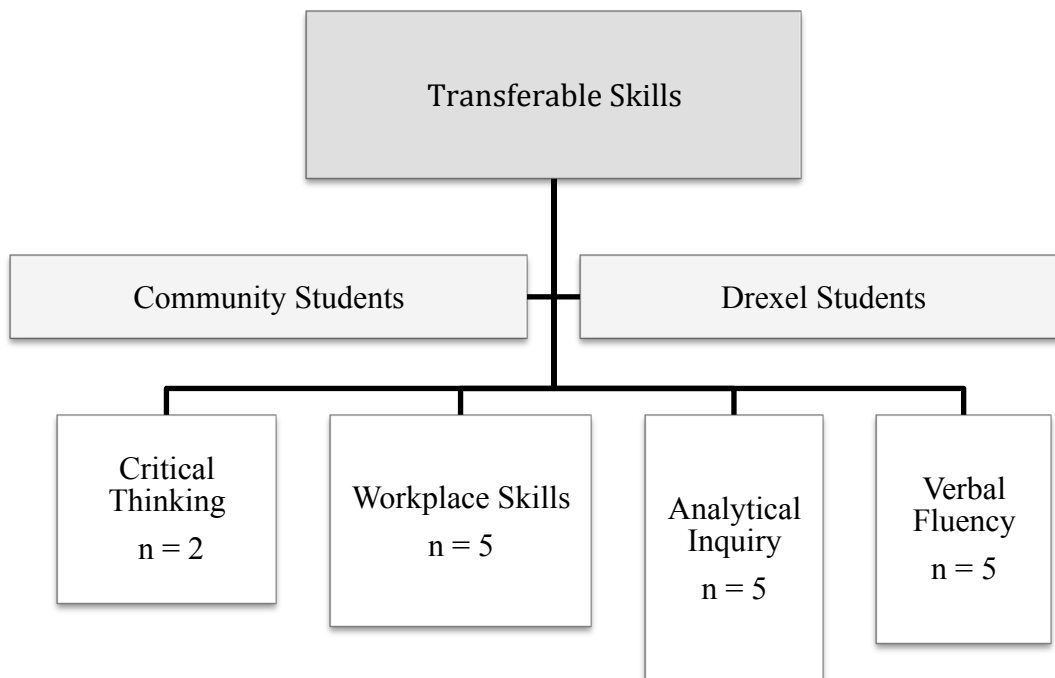
Overwhelmingly, the data demonstrated the connection between the course assignments and the need for students to analyze the academic content.

Verbal fluency was the final theme that emerged from the interview data (n = 5).

Interview data from the three courses demonstrated the need to verbalize one's learning and engagement as a necessary component of the course. Given that all three courses fell under distinct academic disciplines, the researcher may conjecture that verbal fluency is a result of the course format rather than the academic content. When asked, "What did you learn this term in your Side-by-Side course?," a community student eagerly responded:

I learned the power of words. I learned the power of telling your story. That's always been on the back of my mind as kind of like my mission for this year, but reading so many different words from so many different people and stories. Hearing firsthand from people in the classroom . . . I learned the power of speaking. (Literature course)

It is important to note that the community student paused during this comment to compose herself. She was visibly touched by the experience of verbal agency that the course provided to her. The university students described the need to be verbally fluent as an alternative to writing and regurgitating information. One student shared that learning within a Side-by-Side class "was much more about the discussion and the developments and what we wanted to learn as a group than needing to know, 'Oh I need to know this for my paper, I need to know this for my midterm'" (History course). The university and community students described verbal fluency in different ways. Community students who were interviewed described the opportunity to speak and be heard, while Drexel students described the value of discussing information.



N = utterance coded within interview

*Figure 23.* Interview themes for transferable skills

### **Course Engagement**

“Course engagement” was used as an a priori code to analyze the interview data. While course engagement is not included as a 21st-century skill, it is necessary to measure it because it is a dependent variable. Thirty-two utterances were coded as “course engagement” within the interview data, and three themes emerged: (a) collaboration, (b) immersion or interaction, and (c) comfort (see Figure 24).

Overwhelmingly, students described that both the collaborative nature of the course and its format allowed for course engagement. This was a clear emergent theme with thirteen utterances identified according to the course engagement code (n = 13). Students described the

course as nonhierarchical ; the professor was not the sole possessor of knowledge or power and therefore collaboration was possible. A student in the literature class commented:

. . . you know undergraduate classes that are discussion based if you like, it feels like the professor was kind of in charge so I feel like this class is so much more . . . There was much more quality because it is people coming together and having free discussion about stuff and I feel like in some ways it was a lot more conducive to learning because there's just so many more people to potentially be learning from on the same level. (Literature course)

None of the students described the course as a didactic learning environment whereby the professor was the authority. Moreover, students described the course structure as one that encouraged collaboration.

Students were very specific in the paired student interviews and shared that the course structure allowed for collaboration that both student groups valued equally. Both Drexel and community students were empowered with agency and voice. In describing the course format, a history student stated, "It's a format where there's buy-in for both groups because we're getting something out of it" (History course). It is important to note that many of the comments about collaboration were directly linked to the students' comfort level as described in the overview of this topic's second theme. It appears as if the intense collaborative environment could not have been possible without the students feeling so comfortable in the course. A literature student remarked, "I think that it was a great course, a lot of interaction, sharing of opinions and the work definitely had to be done, but it was in a relaxed atmosphere [with] a great instructor" (Literature course).

Drexel students and community students shared that the course expanded their notion of collaboration and that the course itself became a community. The student pairs conversed about course events and activities, referencing shared discussions and activities. The course engagement was portrayed as a collective action rather than a dynamic in which students individually collaborated with the material or the professor. A history student clearly articulated his connection to course engagement: “I think people should know how much more you become involved and engaged with the class, and you become like [*inaudible*] like a little community or something, like all the jokes and everything. It was a lot of fun” (History course).

The second emergent theme identified by the course engagement code was the importance of feeling comfortable (n = 9). Throughout the interviews, both community and Drexel students commented on the feeling of comfort and its effect on their engagement. At times students clearly articulated that the course structure created a sense of comfort. During one paired interview a university student turned to her community student colleague and commented, “Having more of the adult figures in the class makes it really comfortable. You guys, you always talk, so it’s just like being at home for me” (Communication course). Students used the word “comfortable” throughout all six interviews. Both types of students reported that comfort allowed for engagement. This was reportedly a very valuable aspect of the course. A communication student stated, “As the class went on, we all just started knowing each other and we got a lot more comfortable with each other. I think that was the most positive experience, was getting comfortable with everyone” (Communication course). The freedom to feel comfortable within the class was reported to enable the student to more deeply engage in the course and its instructional content than they would in a traditional classroom. A community student enrolled in the history class contrasted her Side-by-Side course experience with getting her undergraduate



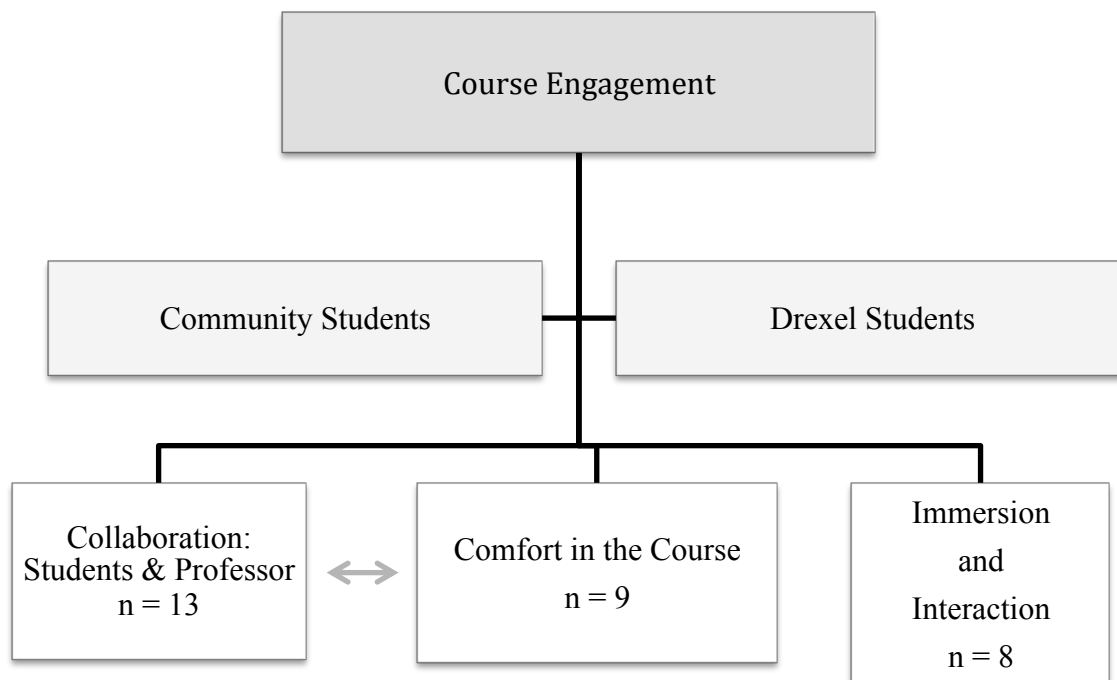
degree: “I felt like because this was a more relaxed environment, it was an opportunity for me to have fun and just learn” (History course). Throughout the six interviews there were nine utterances that explicitly stated that the experience of comfort allowed the student to engage in the course learning.

The third emergent theme from course engagement–coded data was the value of being immersed or interacting with the material ( $n = 8$ ). According to interview responses, immersing in the course was possible because the professor was not viewed as the sole provider of knowledge, and the students did not identify as merely recipients of knowledge. The ability to interact with the course material appeared to have increased students’ course engagement and content attainment. A history student explained:

I have to say, what I really liked is the fact that they gave us a walking tour, and he made the story alive. It’s not just reading the printed textbook or the material he gave us, it’s absorbing it and actually putting yourself in another time and being able to understand the mentality of the people then verse how you would think now. Stuff like that made history alive. (History course)

Within the interview pairs, Drexel students stressed that the experience of interacting with the course material and content was atypical in their undergraduate career.

Emergent themes and the analysis of the data revealed that course engagement was generally reported as an integral aspect of the course. Overall, course engagement received a high enumeration of codes ( $n = 32$ ). Three emergent themes were identified and analyzed to enhance the context of course engagement within the interview data.



N = utterance during interview

Figure 24. Interview themes for course engagement

### Summary

Three of the four a priori codes were identified through analysis of the student pair interviews: experience with diversity, civic engagement, and transferable skills. While global perspective was demonstrated as a theme, it was not significant. Experience with diversity was the most pronounced code and was measured in 46 utterances within the interview data. Emergent themes were created within each of the codes to contextualize the data.

### Video Data

During the last week of the term, the final class of each Side-by-Side course (communication, history, and literature) was recorded with a video camera. The recording captured student groups presenting their course final project, and it was analyzed by observing

the physical environment, behavior, interaction between faculty and students, student relationships, and course content. The video was coded in ATLAS ti using a priori codes of the four 21st-century skills:

1. Experience with diversity;
2. Global perspectives;
3. Civic engagement;
4. Transferable skills.

Course engagement was also coded and analyzed. The researcher defined an utterance as the discussion or demonstration of a code concept within the video recording. Each code was enumerated and analyzed for emergent themes (see Table 38). Code co-occurrence and c-coefficients were utilized to analyze the strength of relationships, as illustrated in Table 39. The c-coefficient was not used in the interview data because interpreting such a coefficient is only meaningful with a sizable data set and not for an interview study with fewer than 10 respondents (ATLAS.ti for Mac - User Manual, p.20).

It is important to note that two of the three courses specifically addressed the city of Philadelphia—the history course, History of Philadelphia, and the literature course, Philadelphia Stories—therefore, the course content pertained to local civic issues. The course content and design of the final projects in the history and literature courses asked students to become immersed in the community, interviewing local civic leaders and visiting historic civic sites. The communication course, Public Speaking, addressed issues of social justice and speech. In this course, students chose issues of local or national importance to discuss in a town hall–style presentation.

Table 38

*Video Code Distribution*

Code	Frequency (n = utterance)
Experience with diversity	n = 68
Civic engagement	n = 84
Global perspectives	n = 18
Transferable skills	n = 84
Course engagement	n = 90

Table 39

*Video Code Co-occurrence Frequency and c-coefficient Table*

	Civic engagement	Course engagement	Experience with diversity	Global perspectives	Transferable Skills
Civic engagement		19 0.12	25 0.19	6 0.06	23 0.17
Course engagement	19 0.12		31 0.24	2 0.02	21 0.15
Experience with diversity	25 0.19	31 0.24		5 0.06	22 0.17
Global	6	2	5		3

perspectives	0.06	0.02	0.06		0.03
Transferable	23	21	22	3	
skills	0.17	0.15	0.17	0.03	

### **Experience with Diversity**

Experience with diversity, as measured by coded utterances, was a theme observed throughout the recordings of the three courses ( $n = 68$ ). As illustrated in Table 39, experience with diversity co-occurred with four other codes: civic engagement ( $c$ -coefficient = 0.19), global perspectives ( $c$ -coefficient = 0.06), course engagement ( $c$ -coefficient = 0.24) and transferable skills ( $c$ -coefficient = 0.17). The strongest relationship was observed in the course engagement and civic engagement codes. Four themes emerged from the video data coded for experience with diversity: (a) student gained diverse life experience, (b) multi-generational diversity, (c) personal impact from an experience of diversity, and (d) value of heterogeneous student group in the final presentation (see Figure 26).

The first emergent theme, student gained diverse life experience, was a widespread theme which arose largely as a result of the final project ( $n = 40$ ). Utterances were coded under this theme for instances in class presentations when students attributed meeting with people or visiting places with bringing a diverse experience or perspective to their project. Many students interviewed people from very diverse backgrounds or visited places that provided a different experience and perspective. For example, in the history course a group detailed the result of visiting a local Philadelphia school and interviewing stakeholders. The presenters described the experience of metal detectors and recounted the conversation surrounding school gun violence (History course). In another presentation, a community student born and raised in the Mantua

section of Philadelphia explained that he gained a new perspective as a result of his interviews and research on the city's Mural Arts Program for his final project. He stated, "During my research I learned things I never knew after living here since the 40s. I thought that I knew everything about the Bottom" (Mantua is often referred to by residents as the "Black Bottom") (Literature course). Throughout all three course videos, students articulated how traveling to new places and meeting with diverse people for their projects provided them not only with an experience of diversity but also offered a new perspective on the course content.

The second theme, multi-generational diversity, was identified when a student articulated the value of age diversity in the final course presentation ( $n = 27$ ). The researcher did not presume the age of the presenters or interviewees. Furthermore, there was not an assumption that age was a value; rather, this code emerged as a result of students underscoring a multi-generational experience. Two students in the history class detailed their final project experience interviewing men who had worked on the Philadelphia railroad lines. A student stated, "What touched us the most with these interviews was realizing how connected people are to the railroads. All three people that we interviewed [were fourth-generation railroad workers] are retired but still so interested in the railroads" (History course). Additionally, a student presented on the gentrification of the Powelton and Mantua communities and the change they have experienced. She interviewed residents who have lived in the area between 30 and 60 years (History course). During a communication final project, a student attributed her decades in the workforce with providing her a valuable perspective on the presentation content. Her project partners were unable to offer a longitudinal perspective and deferred to her authority as someone with diverse experience (Communication course).

The third emergent theme, personal impact from an experience with diversity, was identified when a student articulated the effect of a diverse experience (n = 14). In a communication final presentation, the student described how her work with youth living in a homeless shelter influenced her perspective on the course content. She brought her experience with this different group of people and applied it to her speech on education policy (Communication course). Throughout a final presentation on personal Philadelphia stories, a community and Drexel student discussed how their very different experiences have affected their “story.” The two students referred to their differences to demonstrate the final project objective (Literature course).

The final emergent theme, value of heterogeneous student group in the final presentation, was identified if the student group self-identified as diverse (n = 10). The researcher avoided biases or stereotypes about diversity and did not project this theme on a group; rather, an utterance was coded if a student group articulated the value of its diversity. For example, a final presentation in the literature course was composed of two longtime Mantua residents and two Drexel students (see Figure 25). The group discussed its history and experience with the neighborhood and the effect on the course presentation (Literature course).

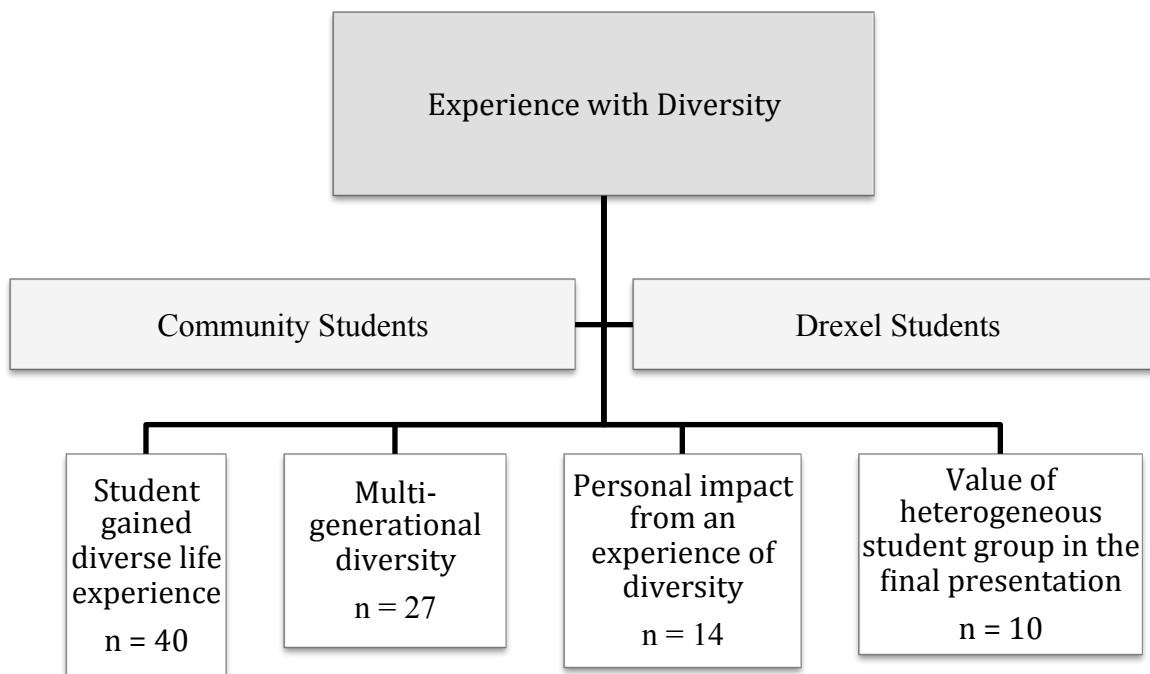


*Figure 25.* Student group composed of two longtime community residents and two Drexel students

Also observed in a communication final presentation was a group who identified themselves and international students as community students and domestic students. The diverse perspectives of this group influenced both the presentation content and analysis of the topic on gun laws (Communication course).

Experience with diversity was represented throughout the video recordings. Emergent themes included (a) student gained diverse life experience, (b) multi-generational diversity, (c) personal impact from an experience of diversity, and (d) value of heterogeneous student group in the final presentation. C-coefficients were highest for course engagement.





N = utterance coded within video

*Figure 26.* Video themes for experience with diversity

### Global Perspectives

The global perspectives code was minimally observed throughout video recordings of the three courses ( $n = 18$ ). The majority of the utterances coded for global perspectives were in the communication course ( $n = 13$ ). As demonstrated in Table 39, global perspectives co-occurred with four other codes: experience with diversity ( $c$ -coefficient = 0.06), civic engagement ( $c$ -coefficient = 0.06), course engagement ( $c$ -coefficient = 0.02), and transferable skills ( $c$ -coefficient = 0.03). The  $c$ -coefficients are not significant and do not suggest a meaningful relationship. Three themes emerged from the video data coded for global perspectives: (a) comparative international content, (b) personal perspective, and (c) experience with global learning (see Figure 28).

The first emergent theme, comparative international content, was the most prevalent (n = 10). Students used facts, mass media, legislation, and statistics to compare international social phenomena and explore intercultural understanding of the course content. The majority of these utterances were observed in the communication course. In a final course presentation in the communication course, the students' public speaking project covered gun control in the United States. Students utilized international cases of gun violence to explore the issue (Communication course). One student utilized international artifacts to demonstrate a global perspective (see Figure 27).



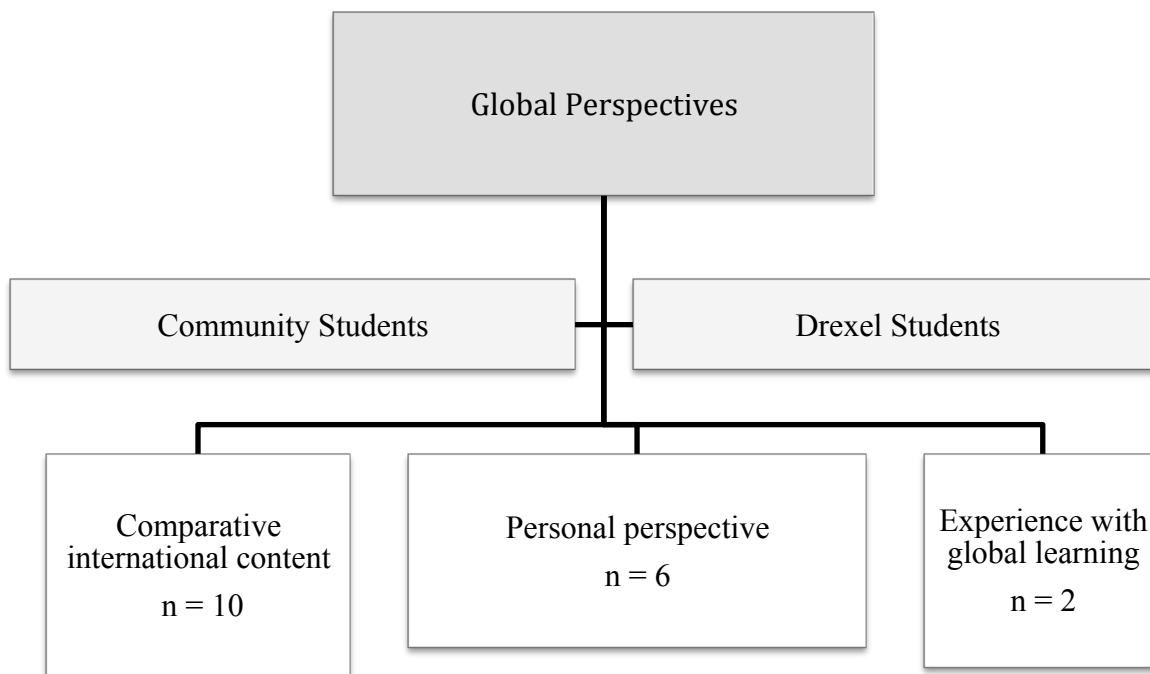
Figure 27. Student PowerPoint presentation slide from gun control speech/final project

The second emergent theme was personal perspective (n = 6). Students utilized their personal perspective or international experience to present the course content. For example, a

Drexel student from Korea explained that completed his education in grades K–8 in Asia. In his evaluation of the American urban school crisis, he discussed his experience of Korean school culture and compared it to Philadelphia schools (Communication course).

The final emergent theme was experience with global learning (n = 2). Both utterances were coded in response to the final project student interviews, conducted with someone who had immigrated to the United States. The nationality of the interviewee was significant as it provided a global perspective to the course content. For example, as part of an oral history final project that explored the Philadelphia school crisis, students interviewed a woman who emigrated from the Dominican Republic. The woman explained that she left her native land with her younger sister to provide her a better education (History course). The caregiver's story was utilized in the final project to represent an alternative global perspective to the city's school system.

Overall, global perspectives were observed the least in the video data. Three emergent themes were observed. Code co-occurrences were not significant and therefore do not suggest a strong relationship with other codes.



N = utterance coded within video

*Figure 28.* Video themes for global perspectives

### **Civic Engagement**

The civic engagement code was observed throughout the video recordings of the three courses (n = 84). As demonstrated in Table 39, civic engagement co-occurred with four other codes: experience with diversity (c-coefficient = 0.19), global perspectives (c-coefficient = 0.06), course engagement (c-coefficient = 0.12) and transferable skills (c-coefficient = 0.17). The strongest relationship with civic engagement was observed in the experience with diversity and transferable skills codes. Three themes emerged from the video data coded for civic engagement: (a) engaged with local or national issues, (b) community-to-classroom, and (c) personal experience with topic (see Figure 30).

The first emergent theme, engagement with local and national issues, was pervasive (n = 72). Students used facts, statistics, and political quotes and compared legislation to support their engagement with a local issue. For example, during a speech about minimum wage, a community student detailed a recent press conference in which a legislator explained a bill he proposed. The student supported his speech, delivered as part of his final project, by synthesizing the political information to support his perspective on wage justice (Communication course).

The second emergent theme, community-to-classroom, was represented throughout the videos (n = 29). Students explained how they traveled to the community to engage with a civic leader or civic structure to gather information for the final project. For example, students in the history course interviewed a local Mantua-based music producer who during the 1970s supported local African American musicians in West Philadelphia. The students observed that the music producer and his studio are located two blocks from their student housing. In the course video, the Drexel student explained that he also is involved in music and that he had no idea about the history of music in Mantua and the influence this producer had over the industry and city (History course). Students also interviewed urban elementary school parents, administrators, and students to learn about the education crisis in Philadelphia (History course). Yet another one group interviewed retired Conrail workers to learn about deindustrialization and rail lines in the city. The student presenters commented that the man they interviewed was a third-generation railroad worker. In the video, a Drexel student stated, “Through my oral history project I learned how important industry was and how [the man he interviewed] called the railroad the ‘arsenal of democracy.’ I can finally see what Philadelphia was prior to when I came here” (History course). A history course group also brought information about gentrification and the influence of institutions of higher education from three Philadelphia universities back to the classroom. The

students interviewed institutional administrators and alumni to support their project (History course). In the history course there were eighteen utterances thematically coded as community-to-classroom. Students immersed themselves with civic leaders to complete their oral history project.

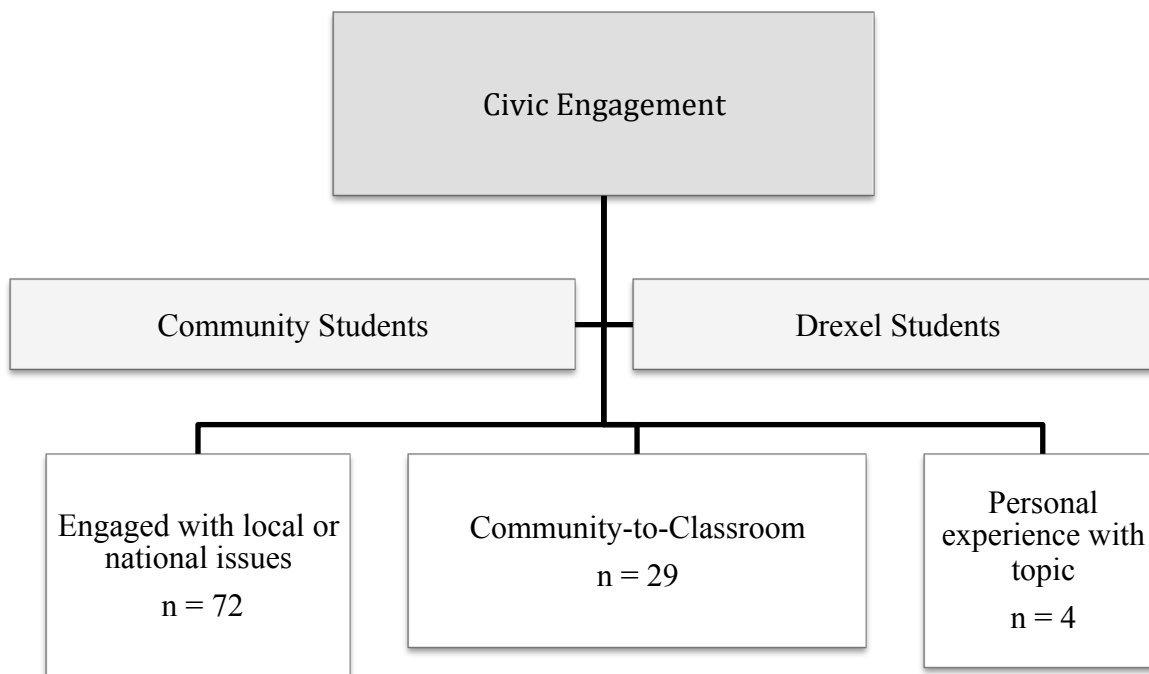
Students in the literature course were charged with analyzing Philadelphia stories by interviewing local authors they had read over the term or engaging in local art installations. There were eleven utterances coded as community-to-classroom in the literature course. One group of community students reported traveling several times to a local art installation, *Before I Die . . .* by Candy Change. The installation was sponsored by Drexel University and therefore the students were able to attend both the artist's lecture and a workshop the artist held in the community (Communication course). The students recounted that they visited the installation several times and reported the influence the installation had on the surrounding community. In Figure 29, community students are pictured with the artist at the site of the art installation.



*Figure 29.* Literature course community students and artist at community art installation

The theme of personal experience with the topic was less notable within the civic engagement code ( $n = 4$ ) but still worth reporting. For example, a community literature student connected her personal civic engagement to her final presentation as she recounted participating in public protest over school budgets (Literature course). Moreover, a community student described how while riding the bus he was inspired by the murals and the people they portrayed. He connected this personal experience with his choice to cover the Philadelphia Mural Arts Program for his final project (Literature course).

Civic engagement was represented throughout the video. Emergent themes included engagement with local issues, a community-to-classroom experience, and personal experience with the final project topic. C-coefficients were highest for transferable skills, experience with diversity, and course engagement.



N = utterance coded within video

*Figure 30.* Video themes for civic engagement

### Transferable Skills

The transferable skill code was observed throughout the video recordings of the three courses ( $n = 84$ ). As demonstrated in Table 39, transferable skills co-occurred with four other codes: experience with diversity ( $c$ -coefficient = 0.17), global perspectives ( $c$ -coefficient = 0.03), course engagement ( $c$ -coefficient = 0.15), and civic engagement ( $c$ -coefficient = 0.17). The strongest relationship with transferable skills was observed in the codes experience with diversity and civic engagement. Four themes emerged from the video data coded for civic engagement: (a) integrative learning, (b) verbal fluency, (c) analytical inquiry, and (d) reflective learning (see Figure 31).



The first emergent theme, integrative learning, was observed throughout all three courses; however, it was most pronounced in the literature and history courses (n = 38). This theme was coded when an utterance demonstrated multiple sources of information or experiences assimilated into the student learning. Throughout the literature and history courses, students incorporated their interviews and experience in the community into their final project. Students very often used the narratives from the interviewees to enhance or supplement traditional academic content. For example, in the history course, a student utilized information from the interview of a longtime resident with the course knowledge presented in the text to inform the class about the history of Philadelphia (History course). Another history student integrated interviews with Philadelphia school administrators, caregivers, and alumni with statistics and policy to present information on the Philadelphia school system (History course).

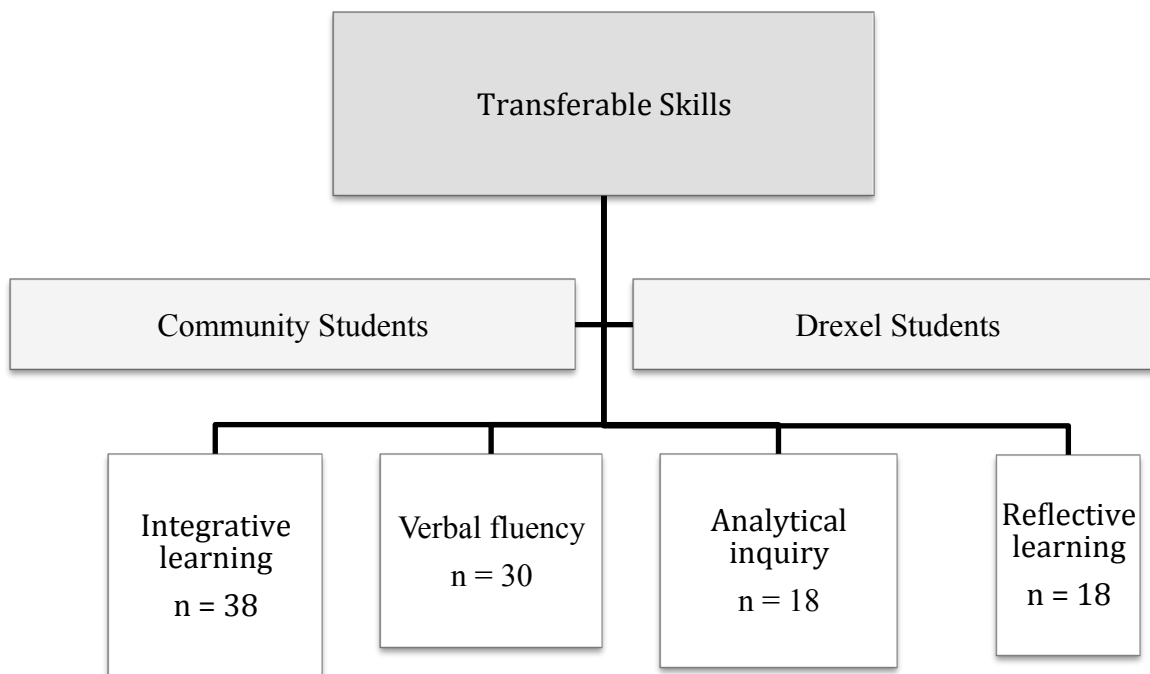
The second emergent theme, verbal fluency, was identified if the student presentation was determined to be high quality (n = 30). Given the nature of the final presentation, all students were observed with some level of verbal fluency within the video data. This theme was coded as such only if the quality of the presentation was deemed an exemplary oral presentation useful in the workplace.

The third emergent theme, analytical inquiry, was particularly prevalent throughout the literature and history courses (n = 18). It is important to note that the assignments in these two courses directed students to engage with multiple sources of information to contribute to a multidimensional analysis for the final project. For example, a history student group utilized interviews of administrators and alumni, examinations of webpage content, and historical data to analyze the history of higher education in Philadelphia (History course). Two students enrolled in the literature course presented on a local community art installation for their final project. The

students utilized the physical presence of the art, attended a lecture and workshop by the artist, and referred to the artist biography to analyze their project (Literature course).

The final emergent theme, reflective learning, was also observed extensively throughout the literature and history courses (n = 18). Again, it is important to note that the assignments in these two courses directed students to engage with their community. In a history final presentation, a student commented that “a conversation he had with the person he interviewed reshaped the course topic” (History course). Throughout the final presentation videos, students are observed reflecting on their experience outside of the classroom and the effect such experience had on their overall learning. A literature course student recounted her experience of visiting a local community art installation for her final project. The student engaged with a person also visiting the art and learned that they attended the same high school. The student was observed in the video reflecting on this experience and connecting it to the purpose of the community art installation (Literature course). There were several powerful examples of students’ self-reflective learning.

The transferable skill code was observed throughout the video recordings of the three courses (n = 84). The course’s final assignment appeared to have an influence on the distribution of the four emergent themes: (a) integrative learning, (b) verbal fluency, (c) analytical inquiry, and (d) reflective learning. The transferable skill code had the strongest relationship with the experience with diversity and civic engagement codes.



N = utterance coded within video

*Figure 31.* Video themes for transferable skills

### Course Engagement

The course engagement code was observed throughout the video recordings of the three courses ( $n = 90$ ). As demonstrated in Table 39, course engagement co-occurred with four other codes: civic engagement ( $c$ -coefficient = 0.12), experience with diversity ( $c$ -coefficient = 0.24), global perspectives ( $c$ -coefficient = 0.02), and transferable skills ( $c$ -coefficient = 0.15). The strongest relationship with course engagement was observed in the experience with diversity code. Four themes emerged from the video data coded for course engagement: (a) student-to-student dialogue, (b) student-faculty interaction, (c) quality and supportive environment, and (d) learning with peers outside of the classroom (see Figure 35).

The first emergent theme, student-to-student dialogue (n = 72), was identified by observing student behavior. The theme was characterized by interactions beyond a traditional question-and-answer transaction. Students engaged with their colleagues by asking them to expand on their opinions about the final project topic. Students in the audience quoted sections of their colleagues' presentation and asked for clarifying information. Moreover, students either presenting or sitting in the audience conversed in depth about the topic.

The second emergent theme, student-faculty interaction (n = 12), was identified by observing behavior and the physical space of the classroom. For example, in the communication course, the faculty member set up the classroom seats in a semi-circle in which she positioned herself as an active participant, sitting among the students, instead of standing in the front of the classroom. This intentional physical positioning suggested that the faculty member was not exerting authority over her students; rather, throughout the video she is observed acting as an equal, facilitating conversations with her students in a collegial manner (Figure 32).



*Figure 32.* Communication professor speaking with students during course break

At the end of a history presentation, the faculty member teaching the course commented that he “tweeted out” the information that students had presented. He remarked that he learned something new and the tweet was “getting a lot of attention” (History course). The literature course also fostered several meaningful interactions between the professor and her students. The room was arranged in two semi-circles. The faculty member did not position herself in the front of the class; rather, she was observed at several points sitting on the floor to advance the student presenter slides. Throughout the student presentations, the faculty member is also observed engaging with individual students as well as the class as a group. At the end of the course, the faculty member asks the researcher to take a class photo so they may remember the course experience.

The third emergent theme, quality and supportive environment (n = 18), was observed more in the video recordings of the communication and literature courses. The literature and communication faculty are both female and both attended Side-by-Side training workshops. The history faculty member is male and had not received any formal training on Side-by-Side. Behavioral and physical observations were utilized in establishing this theme. For example, students and faculty in the communication course were observed still wearing nametags in the final week of the course. This may suggest the culture of the larger classroom in which importance is placed on calling one another by name (Communication and Literature courses). Throughout the literature course video, the faculty member is observed asking students, “What can I do to help?” (Literature course). This created a warm and comfortable classroom environment. The faculty member also provided refreshments for the students. When she announced that the refreshments were available, students erupted in cheer. She was observed passing around cookies while student groups prepared for their presentation (Figure 33).



*Figure 33.* Literature faculty passes around cookies to students

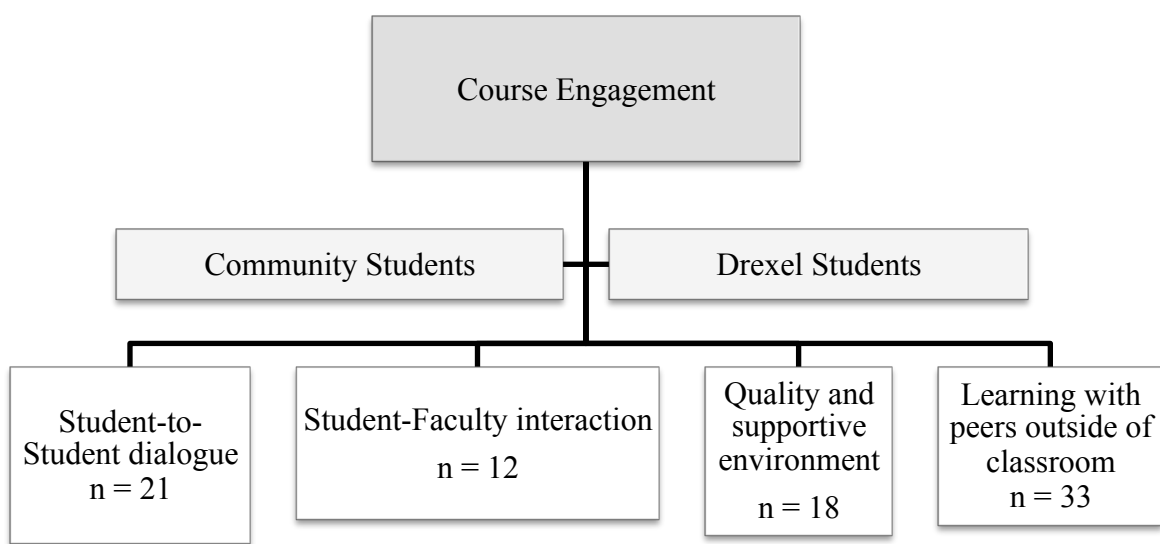
The fourth emergent theme, learning with peers outside of the classroom ( $n = 33$ ), was observed the most in the history and literature courses. The history course final project required students to collect oral histories of people engaged with the city. The literature course final project provided options for students to engage with people and places in the community. This theme was categorized by students' explanations of meeting with class colleagues outside of the required course time to gather class information. Throughout the course video, students are observed describing interviews of people for their project. Also, students brought back photos of them engaged with their peers in museums, art installations, murals, and schools (Figure 34).



*Figure 34.* Students in literature course bring back pictures from their museum visit together

Course engagement was represented throughout the video. Emergent themes included engagement with student-to-student dialogue, student-faculty interaction, quality and supportive environment, and learning outside of the classroom with peers. C-coefficients were highest for experience with diversity.





N = utterance coded within video

*Figure 35.* Video themes of course engagement

### Summary

All five of the a priori codes were identified throughout the video recording of students' final project presentations: experience with diversity, global perspectives, civic engagement, transferable skills, and course engagement. Behavioral observations, interactions, and course content were analyzed to determine a priori codes and discern emergent themes to contextualize the data. Code co-occurrence and c-coefficients were utilized to examine the relationship between codes.

### Integrated Data

The quantitative and qualitative data reflected course engagement and the four 21st-century skills throughout the three Side-by-Side courses. It is important to note that quantitative

data only reflected the skill attainment of Drexel students, as community students did not participate in the survey. By counting the number of times that a code was assigned to the data, the qualitative data was enumerated and merged with quantitative results (Table 40). The qualitative data was computed by frequency of utterances, as reflected in the data. Furthermore, calculations were made using the number of survey items or individual questions whose responses demonstrated significant change within the pre and post data

Table 40

*Quantitative and Qualitative Data by Skill and Engagement*

Data Source	Experience with diversity	Global perspectives	Civic engagement	Transferable skills	Course engagement
Survey	1 (1st)	5 (3rd)	4 (2nd)	1 (1st)	1 (1st)
Interview	46 (1st)	3 (5th)	24 (4th)	25 (3rd)	32 (2nd)
Video	68 (3rd)	18 (4th)	84 (2nd)	84 (2nd)	90 (1st)
Rank order (mean)	1.67	4	2.67	2.0	1.33

Codes assigned to data from the survey, interviews, and video were assigned a rank determined by the frequency of significant responses to questions and utterances. Each code within the data sources was assigned in rank order 1 through 5, and a mean was computed for each code. This allowed the researcher to establish an integrated perspective of the codes within the different data sources. By classifying the order of each code or skill within the data sources, a comprehensive ranking was established: Course engagement was the most pervasive, which was followed, in

descending order in pervasiveness, by (2) experience with diversity, (3) transferable skills, (4) civic engagement, and (5) global perspectives (Figure 36).



*Figure 36.* Skill and engagement rank across data sources

## **21st-Century Skills**

The two research methods allowed for course engagement and the four skills to be measured and contextualized.

### *Experience with Diversity*

Regarding the first skill, experience with diversity, one survey question registered responses showing significant change: “To what extent have events or activities at your institution emphasized perspectives on societal differences (economic, ethnic, political, religious, etc.)?” Experience outside of the traditional classroom and the opportunity to engage with diverse activities were also reflected in the qualitative data. Throughout the interviews, students

spoke about the value that comes from both life experience and exposure to diverse experiences. Additionally, in the video data the experience with diversity code had a high co-occurrence with both civic engagement and course engagement, signifying that participatory activities increased experience with diversity. The three data sources suggested that not only did students become more aware of experience with diversity on their campus, but also that civic engagement and course engagement may have increased the experience with diversity skill as a result of the Side-by-Side course format.

### *Global Perspectives*

The second skill, global perspectives, generated the largest contrast between the qualitative and quantitative data types. There were survey responses showing significant change from the beginning to the end of the course for five survey questions concerning global perspective. This was the largest observed change in any of the skills measured. The questions receiving responses that showed significant change were the following: How much do you agree or disagree with the following statements? (a) When I notice cultural differences, my culture tends to have the better approach; (b) I am informed of current issues that impact international relations; (c) I know how to analyze the basic characteristics of a culture; (d) I put the needs of others above my own personal wants; (e) Volunteering is not an important priority in my life. This code was not prominent in the qualitative data; however, both Drexel and community students' desire to be engaged in the world was prevalent and was reflected in the civic engagement code. Students described and demonstrated in the interview and video data the importance and value of engagement in society. Moreover, the ubiquitous opportunities to experience diversity offered in the course may have influenced students' perceptions of their own culture.

### *Civic Engagement*

The third skill, civic engagement, was observed throughout both the quantitative and qualitative data. Responses to four individual questions indicated significant change from the pre to post survey administration. Those questions, divided into two parts, were the following: “Rate your ability to (a) lead a group where people from different backgrounds feel welcomed and included; and (b) contribute to the well-being of your community; whether course related or not, about how often have you organized others to (c) work on local or campus issues and (d) to work on state, national, or global issues?”

The qualitative data demonstrated both the Drexel and community students’ ability to lead a diverse group in a welcoming and inclusive manner. In all six of the paired interviews, the Drexel and community students spoke casually and comfortably. Students did not interrupt; rather, they engaged in a respectful conversation. Often one student would answer a question and the other would validate the response and contribute an anecdote to support the claim of their colleague. The video data visually demonstrated Drexel and community students working together on their final projects. Although it was not possible to distinguish between a Drexel and community student, all groups appeared to be multi-generational and racially and ethnically diverse. Moreover, all group members appeared to contribute to the project and were respected for their input. For example, in the literature course a self-identified Drexel student explains how his community student colleague introduced the group to a historic civic leader for their project (Literature course). The dialogue is respectful, light, and appeared to be friendly.

The second civic engagement survey question in this series asked students about their ability to contribute to the well-being of their community. This code and theme were represented throughout the interview data. For example, Drexel students reported with overwhelming

frequency that the Side-by-Side course format allowed them to “get to know” their non-Drexel neighbors. They explained that this was an enormous personal and community benefit. The community students also said the course was “good for the community,” and, remarkably, they described it as an university outreach effort. Both Drexel and community students stated that their participation in the course contributed to the local community. The video data recorded students addressing issues in the local community. Particularly in the history course, students worked together to research, interview, and visit civic structures and leaders who have contributed to the Philadelphia community.

The final two civic engagement questions in this series asked students about how often they have organized others to work on local or national issues. This theme of local engagement was also represented in the qualitative data. Drexel and community students described in their interviews the value of being civically engaged and involved in the local community. The video data’s most prevalent theme was the engagement of local and national issues. Both the quantitative and the qualitative data reflected the civic engagement skill.

### *Transferable Skills*

There was a significant change in response regarding one transferable skill survey question: “Whether course related or not, about how often have you made a speech to a group?” All three courses required students to give an oral presentation for the final project and therefore the answer to the survey question was expected to mention at least some experience with speaking to a group. This skill was disproportionally represented in the qualitative data and was not extensively coded within the interview data; however, transferable skills were reflected throughout the video data. Students may not have recognized that the requirements for the course were also transferable skills. This supposition may explain why, when asked in either the survey

or interview, students did not identify such skills, and conversely students were observed in the video demonstrating transferable skills throughout their final project presentations.

### *Course Engagement*

One course engagement question generated responses showing significant change from the pre to post survey: “To what extent have courses allowed you to learn effectively on your own, so you can identify, research, and complete a given task?” The quantitative results were inconsistent with the qualitative findings. Throughout the interviews both Drexel and community students’ explanations reflected the definitions and aspects of engagement also defined by the survey instrument. Additionally, students are observed throughout the video engaged in the course as defined by the survey instrument.

### **Summary**

Qualitative and quantitative data provided a comprehensive understanding of skill change as a result of completing a Side-by-Side course. A matrix and enumeration of codes provided a foundation upon which emergent codes could be determined. Additionally, quantitative data provided a measure of significant change in skill over the 10-week course experience and the relationship between independent variables and skills. Together the quantitative and qualitative data sources (survey, interviews, and video) created a comprehensive data set in which to measure change in 21st-century skill and course engagement.

## Chapter 5: Conclusions

### Introduction

Graduating college students need to enter the workforce as civic-minded professionals who are equipped with the necessary 21st-century skills to thrive in an ever-changing global workforce. According to a 2013 survey conducted by Hart Research Associates on behalf of AAC&U, 74% of employers would recommend a “21st-century liberal education” wherein students develop “a sense of social responsibility; strong intellectual and practical skills that span all major fields of study, such as communication, analytical, and problem-solving skills; and the demonstrated ability to apply knowledge and skills in real-world settings” (AAC&U, 2015, para. 4). Moreover, 75% of surveyed employers reported that they wanted more emphasis on five key areas: critical thinking, complex problem solving, written communication, oral communication, and applied knowledge in real-world settings (Hart, 2013, p. 3).

As the need for 21st-century skills continues to increase, the workforce is calling upon institutions of higher education to better prepare college graduates to succeed in a dynamic and diverse global economy (Boyels, 2012; Cobert, 2005; Binkely et al., 2012; National Education Association, 2014). Boyels (2012) holds that the increased demand for a highly skilled 21st-century workforce has contributed to the rising importance of obtaining a college education. However, recent studies indicate that newly hired college graduates do not excel in these knowledge skills at the level that employers desire (p. 34).

Nationally there has been growing concern about the country’s weak civic health, as indicated by AAC&U (2012). According to the report, educators must make civic learning and democratic engagement a national priority for the country’s institutions given that workplace, jobs, and skill demands are changing within our global economy (AAC&U, 2012).



Consequently, higher education institutions and the workforce have begun articulating and implementing goals for 21st-century success. However, oftentimes course pedagogy neither integrates nor aligns with the macro-level university goals of democratic engagement and provision of 21st-century skills.

In 2011 Drexel University leaders announced the institution's commitment to preparing *responsible civic professionals*. This is evident in the institution's strategic plan, which reads, "Drexel University fulfills our founder's vision of preparing each new generation of students for productive professional and civic lives while also focusing our collective expertise on solving society's greatest problems" (Drexel University Strategic Plan, 2015, para. 2). It is this commitment that enabled and inspired Drexel University faculty and staff to co-create the Side-by-Side community-based learning course format.

Side-by-Side is a unique course format that brings traditional college students and community members together as colleagues for a course spanning an entire term. This format evolved from Temple University's Inside-Out International Prison Exchange program, which was developed in 1996. In 2011, Drexel University organized an Inside-Out specialized training for faculty, staff, and community partners. The group committed to piloting the existing program outside correctional institutions by bringing the high-impact practice to local community settings. The group extended this pedagogy into Side-by-Side Community-Based Learning courses to deepen the skills associated with democratic engagement and civic learning. In the time since Side-by-Side was developed, the university has held over 15 courses with community partners including local anti-poverty organizations, urban farms, minority entrepreneur and small business support services, senior living facilities, and Drexel's Dornsife Center for Neighborhood Partnerships. The following academic disciplines have offered Side-by-Side

courses: sociology, criminology, English, communications, history, business, nursing, culinary arts, and behavioral health.

Similar to online or hybrid course sections, Side-by-Side is a course format that may be applied to any number of courses. For example, *The History of Philadelphia*, a course researched for this study, was offered in three different course formats or instructional models: online, in a traditional classroom, and as a Side-by-Side course. Side-by-Side is a pedagogy that can be utilized in existing courses across multiple disciplines. The student learning outcomes for such courses mirror those of traditional courses and therefore accreditation and course review standards are not affected.

The purpose of this study was to examine the acquisition of 21st-century skills as a result of the Side-by-Side community-based learning course format. The National Student Survey of Engagement and a priori code analysis of student pair interviews and course presentation videos combine into a convergent mixed-methods study to examine skill acquisition skills as a result of the course format. Three Side-by-Side course sections were studied: (a) *The History of Philadelphia*, (b) *Philadelphia Stories*, and (c) *Public Speaking*.

The researcher recognized that the statistical findings that emerge from the NSSE tool might not adequately capture the skill acquisition that resulted from the high-impact community-based learning course. Therefore, two qualitative methods, video class recording and student paired interviews, were employed to alternatively measure 21st-century skills for this mixed-methods research. Five NSSE topical modules were compiled to create the survey used for this research. The survey tool is a national survey typically used to capture institutional engagement of undergraduate college students. As stated previously, the four NSSE topical modules used to measure four 21st-century skills include experience with diversity, global perspectives, civic

engagement, and transferable skills. The topical modules were repurposed and compiled to create a cohesive 70-item questionnaire distributed to Drexel students enrolled in a Side-by-Side course (Appendix A).

For this study, composite scores were created for each 21st-century skill and for course engagement. The quantitative results showed there was not a statistically significant change in students' skills reflected in the pre and post survey. However, responses to 12 individual questions were statistically significant within the paired t-test analysis (Appendix H). The granularity of the individual questions was designed to observe significant gains in particular aspects of skill attainment. For example, women showed a significant gain in transferable skills while men showed a negative gain between pre and post survey completion. One independent variable had an effect on skill acquisition: significant differences in engagement and global perspectives were observed in those students who completed Foundations in Civic Engagement, a required Drexel University course.

There were two sources of qualitative data for this research that were integrated with the quantitative results. Two student pairs from each course were interviewed for this research for a total of six interviews. Within each interview a Drexel student and community student were asked semi-structured qualitative questions about their learning in their Side-by-Side course. Additionally, student final presentations were video recorded for analysis. Together, the interviews and video provided a rich context for analyzing the quantitative data.

The interview data revealed that all four skills (experience with diversity, global perspectives, civic engagement, and transferable skills) and course engagement were demonstrated in the Side-by-Side courses. The *a priori* coding allowed for the enumeration of the defined skills, and emergent themes were analyzed. A multi-generational learning

environment was described as the biggest source of value in the students' experience with diversity. There was minimal reflection of global perspectives within the interview data. Civic engagement was a pervasive theme and students described themselves being in the community in a truly physical way, engaging with civic structures. Transferable skills were reflected differently in the community and Drexel student interview responses. Community students who were interviewed described the opportunity to speak and be heard while Drexel students described the value of discussing information. Overwhelmingly, students described that both the collaborative nature of the course and the format allowed for course engagement.

A video recording of the students' final course project was analyzed for course content, student and faculty behavior, course organization, and physical environment. All of the four skills and course engagement were pronounced throughout all three course video recordings. Students gained diverse life experience, a widespread theme that arose largely as a result of the final project. Global perspectives were reflected as students used facts, mass media, legislation, and statistics to compare international social phenomena and explore intercultural understanding of the course content. Civic engagement with local and national issues was pervasive. Students used facts and political quotes, compared legislation, and reported statistics to support their engagement with local issues. Transferable skills were observed in the students' integrative learning as demonstrated by the multiple sources of information and experiences assimilated into the student learning. Students and faculty were observed to be engaged throughout the course, both formally and informally.

### **Interpretations and Discussion**

The findings from this research confirm and extend knowledge in the field of civic learning and democratic engagement. The framework for this research was grounded in the

literature and included the history of civic learning in higher education, experiential learning theories, and high-impact practice as well as student learning outcomes in a community-based learning course. Eyler (2002) argues that service learning is ideally suited to achieve both personal and academic goals for students and broader goals of civic engagement and social justice for communities. The results of this research not only supported Eyler's notion but also suggested that the Side-by-Side course format may in fact increase both course engagement and 21st-century skills.

There is a rich history of civic learning and democratic engagement within institutions of higher education (Brand, 2010). The Side-by-Side course format and pedagogy reflects this history and actively engages traditional college students and community students in a high-impact practice grounded in democratic engagement. The AAC&U counsels that civic literacies cannot be garnered only in traditional classroom settings; rather, democratic knowledge is enhanced through "hands-on, face-to-face, active engagement in the midst of differing perspectives about how to address common problems that affect the well-being of the nation and the world" (2012, p. 3). This notion was ubiquitously observed throughout the data. Both Drexel and community students stressed the importance of diverse perspectives in exploring social issues. Moreover, they cited the effect that the unique course engagement had on their learning.

Research has explored civic learning in higher education and indicated that certain levels of political knowledge and civic identity affect the acceptance of democratic principles, attitudes toward specific issues, and political participation, as well as fostering new leadership and skills (Galston, 2001). While the composite skill scores in this study did not demonstrate a change in skill acquisition after completion of the course, responses to individual questions and qualitative data reflected meaningful examples of the skills studied. For example, between pre and post

survey administration, students' level of agreement increased in response to the question that asked, "To what extent do events or activities offered at your institution emphasize perspectives on societal differences?" This finding suggested that students became more aware of local issues and events held within their community as a result of participation in a course offered in a Side-by-Side format.

The Side-by-Side course format exemplifies Dewey's notion of progressive experiential learning and Kuh's notion of high-impact practice. Quantitative and qualitative findings in this study reflected Dewey's theoretical approach to experiential learning. In his 1938 publication *Experience and Education*, Dewey called for educators to place the subject matter within a larger framework of experience within a democratic society. He continued to advocate for an educational system that moves beyond the transmission of facts, and challenges students to integrate and retain their learning (Itin, 1999). The data within in this study produced evidence supporting the experiential learning Dewey described nearly eight decades ago. Meaningful course projects, readings, and experiences created a unique model in which students could integrate their experience and new content information. The integration of learning both in the classroom through academics and in the community through experience was observed throughout each course. This was demonstrated in the video recordings when students utilized multiple sources of information and experience in the assimilation of their learning.

Furthermore, the Side-by-Side course format exemplified a high-impact practice as defined by the NSSE. Throughout the interview and video data in this study, students describe or demonstrate three of Kuh's requisites for a high-impact practice: (a) learning opportunities outside of the classroom, (b) meaningful interactions with faculty and students, and (c)

interaction with diverse others. Kuh (2008) suggests that students engaged in a high-impact practice are able to retain, integrate, and transfer information at higher rates.

Research is replete with evidence of student learning outcomes within community-based learning courses. For example, community-based learning has a positive impact on students' connections with faculty (Astin & Sax, 1998; Gray et al., 1998; Eyler & Giles, 1999). According to Pascarella and Terenzini (2005), a connection with faculty is an essential factor in students' college persistence. In this research, connection with faculty was a significant emergent theme represented in the qualitative data. Although the quantitative survey utilized in this research did not specifically ask about engagement with faculty, the qualitative data provided rich examples of meaningful relationships between faculty and students.

Studies that have measured community-based learning (CBL) outcomes beyond student grade point averages have demonstrated outcomes such as critical thinking, problem solving, and citizenship skills (Finley, 2011). The results of this study are consistent with Finley's (2011) findings, as the civic engagement skill was observed throughout the data. For example, of the 12 individual questions whose responses demonstrated significant change between the pre and post data, four measured civic engagement. It should be noted that of the six individual global perspective questions registering significant responses, four arguably described civic engagement as well. Furthermore, the global perspective questions that reflected a change in the pre and post survey asked students about events that highlight societal differences or social injustice, the desire to put others' needs before your own, the importance of volunteerism, and their level of being informed about current issues.

Conway et al. (2009) claim that CBL places teaching and learning in a social context and therefore facilitates a socially responsible type of knowledge (p.233). Additional proficiencies

such as communication skills, leadership, and the ability to work with others emerge from this knowledge (Eyler et al., 2001; Moely, et. al, 2002). Data from this study showed that three of the individual civic engagement questions had responses showing a significant change and thus supporting this research. Students reported increases in their contribution to their community, the frequency with which they organized others to work on a local or campus issue, and their ability to lead a group where people from a different background feel welcome and included.

Additionally, the qualitative data provided a context to the NSSE survey, as students described the impact of working in a diverse environment and engaging in the community. The findings of this research suggest that engaging students in a unique course experience offered by the Side-by-Side course format may allow for lifelong benefits. Additionally, Finley's research validated the claim that civically engaged students demonstrated effective outcomes after undergraduate graduation. These outcomes included a high frequency of socializing with diverse people, promotion of racial understanding, and participating in community action efforts (Finley, 2011, p. 12).

Research by Brownell and Swaner's (2009) found that those students who participated in CBL courses demonstrated gains in moral reasoning, social and civic responsibility, and development in social justice orientation, and increased commitment to pursuing service-oriented careers. The findings in this study support the emergence of civic engagement as a pervasive skill attained as a result of the Side-by-Side course format. Students described themselves in the interview physically in the community engaging with civic structures and leaders. Furthermore, students who completed the university's CIVC101 course, Foundations in Civic Engagement, had a statistically significant gain in course engagement and the global perspective skill. This result suggested that the previous civic engagement experience and the introduction of



knowledge might have created a scaffold, which allowed for these students to increase learning or skill outcomes.

Overall, the study showed no measurable or observable differences in the Drexel and community students in terms of skill acquisition. These results are consistent with the course pedagogy. The Side-by-Side course format is designed to create an egalitarian learning environment that accentuates an individual's value and contribution. The results suggested that both student types, albeit very diverse, shared a common learning proficiency with similar outcomes and experiences.

The results of this study complement research that demonstrates the benefits of students' civic identity in the development of democratic leadership (Mitchell, Visconti, Keene, and Battistoni, 2011). Consistent with Knefelkamp's (2008) notion of civic development, fully engaged students, similar to those enrolled in the Side-By-Side courses included in this research, may develop a civic identity, apply knowledge, and develop skills as a result of such civic and democratic engagement.

### **Limitations and Recommendations**

There were three identified limitations that arose from the execution of this study that may compromise the reliability and generalizability of the data. First, the NSSE survey tool was composed of more than 70 questions. The instrument was long and survey fatigue may have affected the accuracy and focus of the respondents. Future recommendations for addressing these limitations include revising and condensing the modified NSSE survey instrument used for this study.

Second, the survey tool did not capture the voice or experience of the community students. The NSSE survey instrument was designed to evaluate traditional college students' experience within their institution upon graduation and therefore was not applicable to students who were not enrolled full-time. This research was the first time that the NSSE topical modules were used to study a course experience. It is recommended that this study serve as a pilot for the NSSE instrument and be redistributed once revised. The survey sample was very small ( $n = 29$ ) and therefore the data cannot be generalizable. It is recommended in the future that multiple courses and disciplines be researched, and that, as the Side-by-Side program extends beyond Drexel University, researchers study 21st-century skill acquisition in multiple institutions.

Lastly, the qualitative data obtained from the interviews and video recording also had limitations that can be addressed for future studies. Purposeful sampling was utilized to identify the interview participants and therefore results were not generalizable. However, the data obtained through the interviews was significant, and the researcher recommends continuing to use interviews in future research. Another limitation concerns the fact that only one class period was recorded in each course, and therefore results are not generalizable. The researcher was not able to distinguish between Drexel and community students in the video and therefore was unable to analyze any differences in student experiences. Recommendations for future studies include videotaping during three iterations of a given course, including the recording of beginning, middle, and end course periods, which will provide a baseline and longitudinal examination of the course.

### **Implications**

There are several implications from the results of this research. They include curricular scaffolding for civic learning, increased opportunities to participate in a high-impact practice,

community outreach and democratic engagement, and evidence of skills to be listed on a nontraditional transcript.

### *Implications for Curriculum Design & Instruction*

Participation in a Side-by-Side course appeared to have fostered 21st-century skills. Those students who completed their required Foundations in Civic Engagement course may have been provided a foundation on which to build upon during the Side-by-Side course (Appendix I). This finding might suggest that the introduction to civic concepts provided students with the mental model with which to expand and apply the unique course format and content within the Side-by-Side course. These findings suggest that a foundational course provided a scaffold for future civic learning and democratic engagement.

### *Implications for Program*

Additionally, the Side-by-Side course format is categorized as a high-impact practice. Research demonstrated that participation in such practices might increase student retention (Kuh, 2008). Student retention is a ubiquitous issue for institutions of higher education; therefore, providing multiple opportunities to engage in such high-impact practices is recommended.

The interviews showed that students were able to clearly identify the civic value of the course format in addition to the academic content. Throughout the interviews Drexel c skills may be helpful in supporting the movement toward nontraditional transcripts as institutions recognize that they must support their students in our competitive global economy. The Lumina Foundation, NASPA (whose formal name is Student Affairs Administrators in Higher Education), and the American Association of Collegiate Registrars and Admissions Officers

have partnered to explore how to collect, document, and distribute information about student learning and “competencies,” including what is gleaned outside of the traditional academic classroom. Kevin Kruger, the president of NASPA, stated, “The outcomes of a college experience are more than a degree” (Fain, 2015, para. 4). The revised NSSE tool may be utilized to capture such “competencies” or 21st-century skills. Furthermore, the Side-by-Side course format may provide students with the opportunity to foster such skills.

### **Conclusion**

The 21st-century workforce has rapidly evolved and institutions of higher education are charged with graduating students prepared to excel in a world where diverse people collaborate and co-create new knowledge. This task requires students not only to have the academic foundation of their field, but also the skills to work as good citizens within a diverse global economy while adapting to fast-paced changes in knowledge. The Side-by-Side course format, by design, has two known components: (a) it democratically engages students, and (b) it qualifies as a high-impact practice. This research sought to explore if the course format also provides a pedagogy in which 21st-century skills may emerge. Overwhelmingly, these skills were observed in the qualitative data. While the NSSE survey instrument did not show an increase in composite skill acquisition, this study may serve as a pilot for future research. An adapted instrument has the potential to evaluate such skill attainment and provide valuable information to institutions seeking to document such student learning.

In 1862 President Lincoln signed the Morrill Act and established the first Land Grant Institution. Not only did this act charge leaders to provide education to students; it also instructed educators to prepare the nation’s youth to be civically engaged. One hundred and fifty years later, the world has changed, and it is imperative that students have additional skills to succeed in

the workforce as global citizens. The Side-by-Side course format provides a structure in which students are democratically engaged and may acquire the 21st-century skills required to be successful in our ever-changing global economy.

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## Appendix A: National Survey of Student Engagement

**PART I: Please reflect on your GENERAL experience during your college career. Choose the option which best fits your experience at the time of survey completion.**

**To what extent have events or activities *offered at your institution* emphasized perspectives on societal differences (economic, ethnic, political, religious, etc.)?**

Very Often	Quite a bit	Some	Very Little
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**About how often have you *attended* events or activities that encouraged you to examine your understanding of the following?**

	Very Often	Often	Sometimes	Never
a. Economic or social inequality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Issues of race, ethnicity, or nationality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Religious or philosophical differences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Different political viewpoints	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Issues of gender or sexual orientation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**About how often have you had *discussions about* the following?**

	Very Often	Often	Sometimes	Never
a. Economic or social inequality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Issues of race, ethnicity, or nationality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Religious or philosophical differences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Different political viewpoints	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Issues of gender or sexual orientation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Whether course-related or not, about how often have you done the following?**

	Very Often	Often	Sometimes	Never
a. Discussed or debated an issue of social, political, or philosophical importance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Made a speech to a group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Worked in a group with people who differed from you in terms of background, political orientation, points of view, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Discussed the ethical consequences of a course of action	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Creatively thought about new ideas or about ways to improve things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Critically evaluated multiple solutions to a problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





- |    |   |                          |                          |                          |                          |                          |                          |                          |
|----|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| c. | Lead a group where people from different backgrounds feel welcomed and included | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. | Contribute to the well-being of your community                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Whether course-related or not, about how often have you done the following?**

	Very often	Often	Sometimes	Never
a. Informed yourself about local or campus issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Informed yourself about state, national, or global issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Discussed local or campus issues with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Discussed state, national, or global issues with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Raised awareness about local or campus issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Raised awareness about state, national, or global issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Asked others to address local or campus issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Asked others to address state, national, or global issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Organized others to work on local or campus issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Organized others to work on state, national, or global issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**How much do you agree or disagree with the following statements?**

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
a. When I notice cultural differences, my culture tends to have the better approach.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Most of my friends are from my own ethnic background.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I think of my life in terms of giving back to society.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Some people have a culture and others do not.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. In different settings, what is right and wrong is simple to determine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. I am informed of current issues that impact international relations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. I understand the reasons and causes of conflict among nations of different cultures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. I work for the rights of others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. I take into account different perspectives before drawing conclusions about the world around me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. I understand how various cultures of this world interact socially.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**How much do you agree or disagree with the following statements?**

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
<i>a.</i> I rely primarily on authorities to determine what is true in the world.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>b.</i> I know how to analyze the basic characteristics of a culture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>c.</i> I put the needs of others above my own personal wants.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>d.</i> I can discuss cultural differences from an informed perspective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>e.</i> I intentionally involve people from many cultural backgrounds in my life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>f.</i> I rarely question what I have been taught about the world around me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>g.</i> I consciously behave in terms of making a difference.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>h.</i> Volunteering is not an important priority in my life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>i.</i> I frequently interact with people from a different country from my own.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- j. I frequently interact with people from a race/ethnic group different from my own.

**Part II: Please reflect specifically on your courses. Choose the option which best fits your experience at the time of survey completion.**

*Outside of this Side-by-Side course, about how often have you done each of the following in your other courses? Scale: 4 = Very Often, 3 = Often, 2 = Occasionally, 1 = Never*

	Very Often	Often	Occasionally	Never
1. <b>Asked questions</b> during class or contributed to class discussions	4	3	2	1
2. <b>Worked with other students</b> on projects during class time	4	3	2	1
3. <b>Worked with classmates outside</b> of class to complete class assignments	4	3	2	1
4. <b>Tutored or taught</b> the class materials to other students in the class	4	3	2	1

**To what extent have your *Other Courses* emphasized the mental activities listed below?**

**Scale: 4 = Very Much, 3 = Quite a bit, 2 = Somewhat, 1 = Very Little**

	Very Much	Quite a bit	Somewhat	Very Little

---

1. <b>Memorizing</b> facts, ideas, or methods from your course and readings so you can repeat them in almost the same form	4	3	2	1
2. <b>Analyzing</b> the basic elements of an idea, experience, or theory such as examining a specific case or situation in depth and considering its components	4	3	2	1
3. <b>Synthesizing and organizing</b> ideas, information, or experiences into new, more complicated interpretations and relationships	4	3	2	1
4. <b>Evaluating</b> the value of information, arguments, or methods such as examining how other gathered and interpreted data and assessing the accuracy of their conclusions	4	3	2	1
5. <b>Applying</b> theories and/or concepts to practical problems or in new situations	4	3	2	1

To what extent have your *Other Courses* contributed to your knowledge, skills, and personal development in the following ways?

Scale: 4 = Very often, 3 = Often, 2 = Occasionally, 1 = Never

---

	Very often	Often	Occasionally	Never
1. <b>Acquiring job or career-related</b> knowledge and skills	4	3	2	1

---

2. <b>Writing</b> clearly, accurately, and effectively	4	3	2	1
3. <b>Thinking</b> critically and/or analytically	4	3	2	1
4. <b>Learning effectively on your own</b> , so you can identify, research, and complete a given task	4	3	2	1
5. <b>Working effectively with other individuals</b>	4	3	2	1

During *THIS Side-by-Side* course about how often have you done each of the following?

Scale: 4 = Very Often, 3 = Often, 2 = Occasionally, 1 = Never

	Very Often	Often	Occasionally	Never
1. <b>Asked questions</b> during class or contributed to class discussions	4	3	2	1
2. <b>Worked with other students</b> on projects during class time	4	3	2	1
3. <b>Worked with classmates outside</b> of class to complete class assignments	4	3	2	1
4. <b>Tutored or taught</b> the class materials to other students in the class	4	3	2	1

To what extent has *THIS Side-by-Side* course emphasized the mental activities listed below?

Scale: 4 = Very Much, 3 = Quite a bit, 2 = Somewhat, 1 = Very Little

	Very Much	Quite a bit	Somewhat	Very Little
1. <b>Memorizing</b> facts, ideas, or methods from your course and readings so you can repeat them in almost the same form	4	3	2	1
2. <b>Analyzing</b> the basic elements of an idea, experience, or theory such as examining a specific case or situation in depth and considering its components	4	3	2	1
3. <b>Synthesizing and organizing</b> ideas, information, or experiences into new, more complicated interpretations and relationships	4	3	2	1
4. <b>Evaluating</b> the value of information, arguments, or methods such as examining how others gathered and interpreted data and assessing the accuracy of their conclusions	4	3	2	1
5. <b>Applying</b> theories and/or concepts to practical problems or in new situations	4	3	2	1

To what extent has *THIS Side-by-Side* class contributed to your knowledge, skills, and personal development in the following ways?

Scale: 4 = Very often, 3 = Often, 2 = Occasionally, 1 = Never



---

	Very often	Often	Occasionally	Never
1. <b>Acquiring job or career related</b> knowledge and skills	4	3	2	1
2. <b>Writing</b> clearly, accurately, and effectively	4	3	2	1
3. <b>Thinking</b> critically and/or analytically	4	3	2	1
4. <b>Learning effectively on your own</b> , so you can identify, research, and complete a given task	4	3	2	1
5. <b>Working effectively with other</b> <b>individuals</b>	4	3	2	1

---

### Demographics

Sex: Male  Female

Race:

- White
- Hispanic or Latino
- Black or African American
- Native American or American Indian
- Asian / Pacific Islander
- other

What is your age?

- 17–19 years old
- 20–22 years old
- 23–25 years old
- 26–28 years old
- 29–30 years old
- 31–35 years old
- 36–40 years old
- 41–45 years old
- 46–50 years old
- 51–60 years old
- 61–70 years old
- 71 years or older

**Drexel Students Only**-----

Have you completed your Co-Op?

Co-Op: Yes  No

If yes, date \_\_\_\_\_

Have you completed your CIVC 101 requirement?

CIVC 101: Yes  No

Major: \_\_\_\_\_

GPA: \_\_\_\_\_

Academic year:

Freshman

Sophomore

Junior

Senior

Is this your first community-based learning course?

Yes  No

**Appendix B: Student Pair Semi-Structured Interview Questions:**

1. How would you explain a Side-by-Side course to someone?
2. What was your experience like this term within your Side-by-Side course?
3. How is Side-by-Side similar or different to other courses or classes you have taken in the past?
4. What did you learn this term in your Side-by-Side course?
5. Is there anything else that I should know about this course format?

## Appendix C: Consent to Take Part in a Human Research Study

### Consent to Take Part in a Human Research Study

Page 1 of 7

Drexel University  
Consent to Take Part In a Research Study

**1. Title of research study:** *Dissertation: The Measurement of 21<sup>st</sup> Century Skills within a Side-By-Side Community-Based Learning Course*

**2. Researcher:** Dr. Kristen Betts

**3. Why you are being invited to take part in a research study**

We invite you to take part in a research study because you are enrolled in a Drexel Side-By-Side course.

**4. What you should know about a research study**

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part now and change your mind later.
- If you decide to not be a part of this research no one will hold it against you.
- Feel free to ask all the questions you want before you decide.

**5. Who can you talk to about this research study?**

If you have questions, concerns, or complaints, or think the research has hurt you, talk to the research team by emailing [kbetts@drexle.edu](mailto:kbetts@drexle.edu) or [crr46@drexel.edu](mailto:crr46@drexel.edu) or by calling 215-895-3734

This research has been reviewed and approved by an Institutional Review Board (IRB). An IRB reviews research projects so that steps are taken to protect the rights and welfare of humans subjects taking part in the research. You may talk to them at (215) 255-7857 or email [HRPP@drexel.edu](mailto:HRPP@drexel.edu) for any of the following:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research subject.
- You want to get information or provide input about this research.

**6. Why is this research being done?**

This research aims to determine the efficacy of Side-By-Side Community-Based Learning courses. Very little is known about the outcomes of this unique course pedagogy. This study will investigate what 21<sup>st</sup> Century Skills emerge as a result from students' course engagement.

**7. How long will the research last?**

We expect that you will be in this research study for your spring course term. You may choose to participate in a survey, interview and give permission for your final project or course assignment to be video taped.

## Consent to Take Part in a Human Research Study

Page 2 of 7

### ***8. How many people will be studied?***

We expect about 45 people here will be in this research study out of 90 people in the entire study.

### ***9. What happens if I say yes, I want to be in this research?***

If you choose to have your final course assignment or presentation video taped, this researcher will attend your final class or exam period and video your presentation. This will require nothing of you and your time. Your name, contact information will not be used for the purposes of the video. The video artifact will be reviewed and coded for 21<sup>st</sup> Century Skills. Any data collected from the video will be used only for educational purposes. I will provide you access to the video, data and analysis upon your request. At any point you decide that you do not wish to be recorded, I will retract the archive or stop filming.

### ***10. What are my responsibilities if I take part in this research?***

If you take part in this research, it is very important that you feel comfortable presenting your assignment or engaging in your class while being video taped.

- Follow the investigator or researcher's instructions.
- Tell the investigator or researcher right away if you have a complication or injury.

### ***11. What happens if I do not want to be in this research?***

You may decide not to take part in the research and it will not be held against you. There is no course penalty for not participating in the video of your class presentation or assignment.

You may decide not to take part in this research and it will not be held against you. There is no course penalty for not participating in the video of your class presentation or assignment. If you decide not to participate, your standing in the course will not be affected. Your professor, the person assigning course grades, will have no idea who participated and who didn't. Nor will your professor have access to any students' survey responses or interviews.

You can simply choose not to sign the bottom of this consent waiver.

The important risks and possible benefits of these alternatives are listed below:

### ***12. What happens if I say yes, but I change my mind later?***

If you decide to leave the research, the researcher will not include you in the video archive. If you decide to leave the research, contact the researcher so that the researcher can be sure that you are not seen or heard in the video. Your participation in this project has no impact in your course or grade.

### ***13. Is there any way being in this study could be bad for me?***

There are no known physical, psychological, legal, economic or social risks for this study. If you choose to be video taped your privacy will be compromised. Neither your name nor any identifying information will be used however you will possibly be seen or heard on the film.

ICF version: SBE

Subject Initials: \_\_\_\_\_

Revision Date: 01-24-2014

**Consent to Take Part in a Human Research Study**

Page 3 of 7

***14. Do I have to pay for anything while I am on this study?***

There is no cost to you for participating in this study.

***15. What happens to the information we collect?***

Efforts will be made to limit access to your personal information including research study records, treatment or therapy records to people who have a need to review this information. We cannot promise complete secrecy. Organizations that may inspect and copy your information include the IRB and other representatives of this organization.

We may publish the results of this research. However, we will keep your name and other identifying information confidential.

***18. What else do I need to know?***

This research study is being done by Drexel University.

## Permission to Take Part in a Human Research Study

Page 4 of 7

### Signature Block for Capable Adult

Your signature documents your permission to take part in this research.

**DO NOT SIGN THIS FORM AFTER THIS DATE** →



---

Signature of subject

---

Date

---

Printed name of subject

---

Signature of person obtaining consent

---

Date

---

Printed name of person obtaining consent

Form Date

My signature below documents that the information in the consent document and any other written information was accurately explained to, and apparently understood by, the subject, and that consent was freely given by the subject.

---

Signature of witness to consent process

---

Date

---

Printed name of person witnessing consent process



## Permission to Take Part in a Human Research Study

Page 5 of 7

### Signature Block for Adult Unable to Consent

**DO NOT SIGN THIS FORM AFTER THIS DATE** →

Printed name of subject

I am willing to serve as a legally authorized representative for the above named subject. The investigators have explained to me the role and responsibilities of a legally authorized representative. My signature documents my permission for the above named subject to take part in this research.

Signature of legally authorized representative

Date

Printed name of legally authorized representative

Address

City, State, ZIP

Phone

Email

Highest	The following individuals in descending order of priority are capable of serving as a legally authorized representative (LAR). Check the category that best describes the LAR's relationship to the subject.
<input type="checkbox"/>	Health care agent appointed by the subject in a Power of Attorney;
<input type="checkbox"/>	Court-appointed guardian authorized to consent to the subject's participation in the protocol in a current court order issued within the subject's jurisdiction;
<input type="checkbox"/>	Spouse or domestic partner (unless an action for divorce is pending) and adult children of the subject who are not the children of the spouse or domestic partner;
<input type="checkbox"/>	Adult child;
<input type="checkbox"/>	Natural or adoptive parent;
<input type="checkbox"/>	Adult brother or sister.
<input type="checkbox"/>	Adult grandchild
Lowest	Adult who has knowledge of the subject's preferences and values, including, but not limited to, religious and moral beliefs, to assess how the principal would make health care decisions. Unless related by blood, marriage, or adoption, the adult may not be the principal's attending physician or other health care provider nor an owner, operator or employee of a health care provider in which the principal receives care.

Signature of person obtaining consent

Date

Printed name of person obtaining consent

Form Date

My signature below documents that the information in the consent document and any other written information was accurately explained to, and apparently understood by, the subject, and that consent was freely given by the subject.

Signature of witness to consent process

Date

ICF version: SBE

Subject Initials: \_\_\_\_\_

Revision Date: 01-24-2014

**Permission to Take Part in a Human Research Study**

Page 6 of 7

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Printed name of person witnessing consent process

- Assent
- Obtained
  - Not obtained because the capability of the subject is so limited that the subject cannot reasonably be consulted.

## Permission to Take Part in a Human Research Study

Page 7 of 7

### Signature Block for Children

Your signature documents your permission for the named child to take part in this research.

**DO NOT SIGN THIS FORM AFTER THIS DATE** →

\_\_\_\_\_  
Printed name of child

\_\_\_\_\_  
Signature of parent or individual legally authorized to consent to the child's general medical care

\_\_\_\_\_  
Date

- Parent  
 Individual legally authorized to consent to the child's general medical care (See note below)

\_\_\_\_\_  
Printed name of parent or individual legally authorized to consent to the child's general medical care

Note: Investigators are to ensure that individuals who are not parents can demonstrate their legal authority to consent to the child's general medical care. Contact legal counsel if any questions arise.

\_\_\_\_\_  
Signature of parent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name of parent

If signature of second parent not obtained, indicate why: (select one)

- |   |   |
|---|---|
| <input type="checkbox"/> The IRB determined that the permission of one parent is sufficient | <input type="checkbox"/> Second parent is incompetent   |
| <input type="checkbox"/> Second parent is deceased  | <input type="checkbox"/> Second parent is not reasonably available                                      |
| <input type="checkbox"/> Second parent is unknown   | <input type="checkbox"/> Only one parent has legal responsibility for the care and custody of the child |

**Dear Student,**

I am requesting your assistance with my dissertation study, which seeks to evaluate Side-by-Side courses. You were selected to participate in this study because you are enrolled in a Drexel Side-by-Side course. Participation in the study is voluntary and your decision to participate or not to participate will in no way be prejudicial to you. Your informed consent to participate in the study is assumed by your completing the questionnaire and submitting it to the researcher. Do not complete the questionnaire or hand it in if you do not understand or agree to these conditions. If you have concerns or questions about this study, please contact Cyndi Rickards at [crr46@drexel.edu](mailto:crr46@drexel.edu).

**Purpose of the Study:** This is a study to examine the acquisition of skills within a community-based learning course by Cyndi Rickards, doctoral student in Drexel's School of Education. The purpose of this study is to determine the efficacy of the Side-by-Side course experience.

**Survey Description:** You will complete a survey, which will take approximately 15 minutes to complete, during each of weeks 1, 5, and 10 of your course. The survey includes questions about your experiences with (a) diverse and (b) global perspectives, (c) civic engagement, and (d) transferrable skills. I will also ask for some demographic information (e.g., age, race, major, education level, GPA) so that I can accurately describe the general traits of the group of students who participate in the study. You have the option of selecting "Choose not to reply," if you do not want to share this information.

**Benefits of this Study:** You will be contributing to knowledge about community-based learning and Side-by-Side course experiences. In addition, you will be entered in a drawing for a \$20.00 Amazon.com gift certificate. After I have finished data collection, I will conduct the drawing. Winners will receive the gift certificate via mail. After I have finished data collection, I will also provide you with more detailed information about the purposes of the study and the research findings.

**Risks or discomforts:** No risks or discomforts are anticipated from taking part in this study. If you feel uncomfortable with a question, you can skip that question or withdraw from the study altogether. If you decide to quit at any time before you have finished the questionnaire, your answers will NOT be recorded.

**Confidentiality: Your responses will be kept completely confidential.** You will be assigned a participant number, and only the participant number will appear with your survey responses. Only the researcher will see your individual survey responses and the results of our content analysis of your project. At the end of the survey, we will ask your permission to use quotations from your survey for professional presentations and publications. If you agree to let us use quotations, we will NOT include any names or identifying information along with the quotations.

**Decision to quit at any time:** Your participation is voluntary; you are free to withdraw your participation from this study at any time. If you do not want to continue, you can simply not complete the survey. The number of questions you answer will not affect your chances of winning the gift certificate.

**How the findings will be used:** The results of the study will be used for scholarly purposes only. The results from the study will be presented in educational settings and at professional conferences, and the results might be published in a professional journal in the field of education. No personal or self-identifying information will be shared in any subsequent publications or presentations. Your information is confidential and anonymous.

**Contact information:** If you have concerns or questions about this study, please contact Cyndi Rickards at [crr46@drexel.edu](mailto:crr46@drexel.edu).

**Dear Student,**

I am requesting your assistance with my dissertation study, which seeks to evaluate Side-by-Side courses. You were selected to participate in this study because you are enrolled in a Drexel Side-

by-Side course. Participation in the study is voluntary and your decision to participate or not to participate will in no way be prejudicial to you.

Your informed consent to participate a semi-structured interview upon completion of your course is requested. Do not sign this waiver or hand it in if you do not wish to be considered in the random selection of interview participants.

If you have concerns or questions about this study, please contact Cyndi Rickards at [crr46@drexel.edu](mailto:crr46@drexel.edu).

**Purpose of the Study:**

This is a study to examine the acquisition of skills within a community-based learning course by Cyndi Rickards, doctoral student in Drexel's School of Education. The purpose of this study is to determine the efficacy of the Side-by-Side course experience.

**Interview Description:**

You will have the option to participate in a semi-structured interview with a classmate. The interview will allow you to describe your experience in your Side-by-Side course. No personal information will be obtained. No personally identifying information will be gathered. The interview will take approximately 30 minutes.

**Benefits of this Study:**

You will be contributing to knowledge about community-based learning and Side-by-Side course experiences. After I have finished data collection, I will provide you with more detailed information about the purposes of the study and the research findings.

**Risks or discomforts:**

No risks or discomforts are anticipated from taking part in this study. If you feel uncomfortable with a question, you can immediately withdraw from the study and end the interview. If you decide to quit at any time before the end of the interview, the transcript will not be used.

**Confidentiality:**

**Your responses will be kept completely confidential.** You will be assigned a participant number, and only the participant number will appear with your interview transcript. At the end of the interview, I will ask your permission to use quotations from your survey for professional presentations and publications. If you agree to let us use quotations, we will NOT include any names or identifying information along with the quotations.

**Decision to quit at any time:**

Your participation is voluntary; you are free to withdraw your participation from this study at any time. If you do not want to continue, you can simply not complete the consent waiver.

**How the findings will be used:**

The results of the study will be used for scholarly purposes only. The results from the study will be presented in educational settings and at professional conferences, and the results might be

published in a professional journal in the field of education. No personal or self-identifying information will be shared in any subsequent publications or presentations. Your information is confidential and anonymous.

**Contact information:**

If you have concerns or questions about this study, please contact Cyndi Rickards at [crr46@drexel.edu](mailto:crr46@drexel.edu).

If you give consent to enter the sample of participants willing to be interviewed, please sign and submit your name and contact information below:

Student First Name: \_\_\_\_\_

Student Contact Information: \_\_\_\_\_

Student Signature of Consent to participate in an interview:

\_\_\_\_\_



## Appendix D: Approval of Protocol



### APPROVAL OF PROTOCOL

February 18, 2015

Kristen Betts  
Drexel University  
School of Education  
15 S 33<sup>rd</sup> Street  
Philadelphia, Pa 19104

Dear Dr. Betts,

On February 18, 2015 the IRB reviewed the following protocol:

Type of Review:	Initial
Title:	Dissertation: Examining the Efficacy of the 21st Century Skill Acquisition as a Result of Democratic Engagement within a Side-By-Side Community-Based Learning Course
Investigator:	Kristen S. Betts
IRB ID:	1412003300
Funding:	Internal
Grant Title:	None
Grant ID:	None
IND, IDE or HDE:	None
Documents Reviewed:	HRP 211 Application Form, HRP 201 Contact Form, Conflict of Interest, HRP 503 Template Protocol, Written Proposal, Recruitment Letter, HRP 502 Survey Consent, Interview Consent, Final Assignment Consent, Proposal Submission Transmittal, Demographic Survey, NSSE Survey,

According to 45 CFR 46, 110, this study is Approved Expedited Categories 6 and 7. This study will enroll 45 Drexel students from the Side-By-Side Community Based Learning Course to participate in a class survey, interview and final assignment assessment for a student dissertation project.

The IRB approved the protocol from February 18, 2015 to February 17, 2016 inclusive.

Before January 3, 2016, which is 45 days prior to study closure, you are to submit a completed "FORM: Continuing Review Progress Report (HRP-212)" and required attachments to request continuing approval or closure.

If continuing review approval is not granted before the expiration date of February 17, 2016, approval of this protocol expires on that date.

Attached are stamped approved consent documents. Use copies of these documents to document consent.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL.

Sincerely,

Teresa Hinton  
Member, Social and Behavioral IRB #3



## Appendix E: Item Usage Agreement



### *The College Student Report* Item Usage Agreement

The National Survey of Student Engagement's (NSSE) survey instrument, *The College Student Report*, is copyrighted and the copyright is owned by The Trustees of Indiana University. Any use of survey items contained within *The College Student Report* is prohibited without prior written permission from Indiana University. When fully executed, this Agreement constitutes written permission from the University, on behalf of NSSE, for the party named below to use an item or items from *The College Student Report* in accordance with the terms of this Agreement.

In consideration of the mutual promises below, the parties hereby agree as follows:

- 1) The University hereby grants DREXEL UNIVERSITY ("Licensee") a nonexclusive, worldwide, irrevocable license to use, reproduce, distribute, publicly display and perform, and create derivatives from, in all media now known or hereafter developed, the item(s) listed in the proposal attached as Exhibit A, solely for the purpose of including such item(s) in the survey activity described in Exhibit A, which is incorporated by reference into this Agreement. This license does not include any right to sublicense others. This license only covers the survey instrument, time frame, population, and other terms described in Exhibit A. Any different or repeated use of the item(s) shall require an additional license.
- 2) "National Survey of Student Engagement", "NSSE", and the NSSE logo are registered with the U.S. Patent and Trademark Office. Except as provided in part 3c below, these elements may not be incorporated without permission in materials developed under this agreement, including but not limited to surveys, Web sites, reports, and promotional materials.
- 3) In exchange for the license granted in section 1, Licensee agrees:
  - a) there will be no licensing fee to use NSSE items for the purposes described in Exhibit A;
  - b) to provide to NSSE frequency distributions and means on the licensed item(s);
  - c) on the survey form itself, and in all publications or presentations of data obtained through the licensed item(s), to include the following citation: "Items xx and xx used with permission from *The College Student Report*, National Survey of Student Engagement, Copyright 2001-14 The Trustees of Indiana University";
  - d) to provide to NSSE a copy of any derivatives of, or alterations to, the item(s) that Licensee makes for the purpose of Licensee's survey ("modified items"), for NSSE's own nonprofit, educational purposes, which shall include the use of the modified items in *The College Student Report* or any other survey instruments, reports, or other educational or professional materials that NSSE may develop or use in the future. Licensee hereby grants the University a nonexclusive, worldwide, irrevocable, royalty-free license to use,

Indiana University Center for Postsecondary Research  
1900 East Tenth Street • Eigenmann Hall, Suite 418 • Bloomington, IN 47408  
Phone: (812) 856-5824 • Fax: (812) 856-5150 • E-mail: [nsee@indiana.edu](mailto:nsee@indiana.edu) • Web Address: [www.nsee.iub.edu](http://www.nsee.iub.edu)



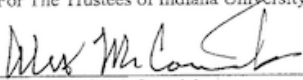
reproduce, distribute, create derivatives from, and publicly display and perform the modified items, in any media now known or hereafter developed; and

- e) to provide to NSSE, for its own nonprofit, educational purposes, a copy of all reports, presentations, analyses, or other materials in which the item(s) licensed under this Agreement, or modified items, and any responses to licensed or modified items, are presented, discussed, or analyzed. NSSE shall not make public any data it obtains under this subsection in a manner that identifies specific institutions or individuals, except with the consent of the Licensee.

4) This Agreement expires on December 31, 2015.

The undersigned hereby consent to the terms of this Agreement and confirm that they have all necessary authority to enter into this Agreement.

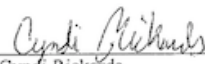
For The Trustees of Indiana University:

  
 \_\_\_\_\_

Alexander C. McCormick  
 Director  
 National Survey of Student Engagement

1/6/2015  
 Date

For Licensee:

  
 \_\_\_\_\_

Cyndi Rickards  
 Assistant Professor of Criminology and Justice Studies  
 Drexel University

12/15/14  
 Date

  
 \_\_\_\_\_

Dr. Kristen Betts  
 Clinical Professor, School of Education  
 Drexel University

12/12/14  
 Date

### Appendix F: Composite Scores

Composite Variable	Sum of:	Cronbach's alpha reliability	No. of items
cDP Experience with diversity Time: 1	<ul style="list-style-type: none"> <li>• DP_1, DP_2, DP_3, DP_4, DP_5, DP_6, DP_7, DP_8, DP_9, DP_10, and DP_11</li> </ul>	<ul style="list-style-type: none"> <li>• .85</li> <li>• good reliability</li> </ul>	11
cGP Global perspectives Time: 1	<ul style="list-style-type: none"> <li>• GP_1, GP_2, GP_3, GP_4, GP_5, GP_6, GP_7, GP_8, GP_9, GP_10, GP_11, GP_12, GP_13, GP_14, GP_15, GP_16, GP_17, GP_18, GP_19, and GP_20</li> </ul>	<ul style="list-style-type: none"> <li>• .44</li> <li>• unacceptable reliability</li> </ul>	20
cCE Civic engagement time Time: 1	<ul style="list-style-type: none"> <li>• CE_1, CE_2, CE_3, CE_4, CE_5, CE_6, CE_7, CE_8, CE_9, CE_10, CE_11, CE_12, CE_13, and CE_14</li> </ul>	<ul style="list-style-type: none"> <li>• .77</li> <li>• acceptable reliability</li> </ul>	14
cTS Transferable skills Time: 1	<ul style="list-style-type: none"> <li>• TS_1, TS_2, TS_3, TS_4, TS_5, TS_6, TS_7, TS_8, TS_9, TS_10, and TS_11</li> </ul>	<ul style="list-style-type: none"> <li>• .79</li> <li>• acceptable reliability</li> </ul>	11
cE Course engagement Time: 1	<ul style="list-style-type: none"> <li>• E_1, E_2, E_3, E_4, E_5, E_6, E_7, E_8, E_9, E_10, E_11, E_12, E_13, and E_14</li> </ul>	<ul style="list-style-type: none"> <li>• .80</li> <li>• good reliability</li> </ul>	14
cDP2 Experience with diversity Time: 2	<ul style="list-style-type: none"> <li>• DP_1_2, DP_2_2, DP_3_2, DP_4_2, DP_5_2, DP_6_2, DP_7_2, DP_8_2, DP_9_2, DP_10_2, and DP_11_2</li> </ul>	<ul style="list-style-type: none"> <li>• .90</li> <li>• excellent reliability</li> </ul>	11
cGP2 Global perspectives Time: 2	<ul style="list-style-type: none"> <li>• GP_1_2, GP_2_2, GP_3_2, GP_4_2, GP_5_2, GP_6_2, GP_7_2, GP_8_2,</li> </ul>	<ul style="list-style-type: none"> <li>• .43</li> <li>• unacceptable reliability</li> </ul>	20

	GP_9_2, GP_10_2, GP_11_2, GP_12_2, GP_13_2, GP_14_2, GP_15_2, GP_16_2, GP_17_2, GP_18_2, GP_19_2, and GP_20_2		
cCE2 Civic engagement Time: 2	<ul style="list-style-type: none"> <li>CE_1_2, CE_2_2, CE_3_2, CE_4_2, CE_5_2, CE_6_2, CE_7_2, CE_8_2, CE_9_2, CE_10_2, CE_11_2, CE_12_2, CE_13_2, and CE_14_2</li> </ul>	<ul style="list-style-type: none"> <li>.65</li> <li>questionable reliability</li> </ul>	14
cTS2 Transferable skills Time: 2	<ul style="list-style-type: none"> <li>TS_1_2, TS_2_2, TS_3_2, TS_4_2, TS_5_2, TS_6_2, TS_7_2, TS_8_2, TS_9_2, TS_10_2, and TS_11_2</li> </ul>	<ul style="list-style-type: none"> <li>.89</li> <li>good reliability</li> </ul>	11
cE2 Course engagement Time: 2	<ul style="list-style-type: none"> <li>E_1_2, E_2_2, E_3_2, E_4_2, E_5_2, E_6_2, E_7_2, E_8_2, E_9_2, E_10_2, E_11_2, E_12_2, E_13_2, and E_14_2</li> </ul>	<ul style="list-style-type: none"> <li>.86</li> <li>good reliability</li> </ul>	14
cEBSS2 SBS Course engagement Time: 2	<ul style="list-style-type: none"> <li>ESBS_1_2, ESBS_2_2, ESBS_3_2, ESBS_4_2, ESBS_5_2, ESBS_6_2, ESBS_7_2, ESBS_8_2, ESBS_9_2, ESBS_10_2, ESBS_11_2, ESBS_12_2, ESBS_13_2, and ESBS_14_2</li> </ul>	<ul style="list-style-type: none"> <li>.81</li> <li>good reliability</li> </ul>	14

### Appendix G: Significant Individual Items

Variable	Mean of time 1 question	Mean of time 2 question	T-statistic	Degrees of freedom	P value (highlighted in gray if less than 0.1)
<b>DP questions</b>					
DP_1	2.414	2.760	-1.995	24	0.058
DP_2	2.172	2.040	0.327	24	0.746
DP_3	2.138	2.280	-0.303	24	0.765
DP_4	1.897	1.800	0.189	24	0.852
DP_5	2.069	2.000	0.214	24	0.832
DP_6	2.000	2.120	-0.941	24	0.356
DP_7	2.793	2.800	-0.238	24	0.814
DP_8	2.862	2.880	0.253	24	0.802
DP_9	2.310	2.240	0.768	24	0.450
DP_10	2.621	2.640	0.225	24	0.824
DP_11	2.517	2.480	0.214	24	0.832
<b>TS questions</b>					
TS_1	2.793	2.760	0.569	24	0.574
TS_2	2.241	2.480	-1.877	24	0.073
TS_3	3.034	3.040	-0.464	24	0.647
TS_4	2.724	2.520	1.000	24	0.327
TS_5	3.034	2.880	0.440	24	0.664
TS_6	2.931	2.840	0.189	24	0.852
TS_7	2.966	2.840	0.647	24	0.524
TS_8	3.345	3.240	0.272	24	0.788
TS_9	2.759	2.720	-0.464	24	0.647
TS_10	2.897	2.880	-0.385	24	0.703
TS_11	2.828	3.080	-1.518	24	0.142
<b>CE questions</b>					
CE_1	5.000	5.280	-1.186	24	0.247
CE_2	4.586	4.880	-0.881	24	0.387
CE_3	4.828	5.360	-2.213	24	0.037
CE_4	4.759	5.280	-1.834	24	0.079
CE_5	2.483	2.360	0.296	24	0.770
CE_6	1.966	2.000	-1.141	24	0.265
CE_7	2.621	2.640	0.000	24	1.000
CE_8	2.276	2.280	0.000	24	1.000
CE_9	3.207	3.120	0.721	24	0.478

CE_10	3.103	2.800	1.365	24	0.185
CE_11	3.379	3.280	0.625	24	0.538
CE_12	3.379	3.160	1.044	24	0.307
CE_13	3.690	3.360	2.138	24	0.043
CE_14	3.759	3.320	2.681	24	0.013
<b>GP questions</b>					
GP_1	2.966	2.560	2.221	24	0.036
GP_2	2.759	2.640	-0.527	24	0.603
GP_3	3.690	3.600	0.296	24	0.770
GP_4	2.138	2.080	0.700	24	0.491
GP_5	2.655	2.760	-0.337	24	0.739
GP_6	3.483	3.840	-2.874	24	0.008
GP_7	3.448	3.640	-1.371	24	0.183
GP_8	3.207	3.280	-0.941	24	0.356
GP_9	4.172	4.080	0.721	24	0.478
GP_10	3.552	3.640	-1.225	24	0.233
GP_11	2.379	2.520	-0.618	24	0.543
GP_12	3.393	3.640	-1.877	24	0.073
GP_13	3.500	3.840	-2.138	24	0.043
GP_14	3.571	3.760	-1.095	24	0.284
GP_15	3.500	3.520	0.000	24	1.000
GP_16	2.286	2.160	0.327	24	0.746
GP_17	3.607	3.560	0.296	24	0.770
GP_18	2.214	2.400	-1.732	24	0.096
GP_19	3.786	3.640	1.414	24	0.170
GP_20	4.036	4.120	0.000	24	1.000
<b>Engagement questions</b>					
E_1	2.821	2.760	0.253	24	0.802
E_2	3.143	2.920	0.827	24	0.417
E_3	3.000	2.800	0.723	24	0.476
E_4	1.929	1.680	0.848	24	0.405
E_5	2.964	2.800	0.749	24	0.461
E_6	3.321	3.160	1.414	24	0.170
E_7	3.036	3.120	-0.464	24	0.647
E_8	2.929	3.240	-1.231	24	0.230
E_9	3.179	3.120	0.238	24	0.814
E_10	2.929	2.960	0.000	24	1.000
E_11	3.143	3.200	-0.272	24	0.788
E_12	3.250	3.320	-0.527	24	0.603



E_13	3.286	3.480	-1.732	24	0.096
E_14	3.036	3.240	-1.000	24	0.327

### **Appendix H: Statistically Significant Individual NSSE Questions**

- 1. Question DP\_1:** To what extent have events or activities offered at your institution emphasized perspectives on societal differences (economic, ethnic, political, religious, etc.)?
- 2. Question GP\_1:** How much do you agree or disagree with the following statements? When I notice cultural differences, my culture tends to have the better approach.
- 3. Question GP\_6:** How much do you agree or disagree with the following statements? I am informed of current issues that impact international relations.
- 4. Question GP\_12:** How much do you agree or disagree with the following statements? I know how to analyze the basic characteristics of a culture.
- 5. Question GP\_13:** How much do you agree or disagree with the following statements? I put the needs of others above my own personal wants.
- 6. Question GP\_18:** How much do you agree or disagree with the following statements? Volunteering is not an important priority in my life.
- 7. Question CE\_3:** Lead a group where people from different backgrounds feel welcomed and included.
- 8. Question CE\_4:** Contribute to the well-being of your community.
- 9. Question CE\_13:** Whether course related or not, about how often have you organized others to work on local or campus issues?
- 10. Question CE\_14:** Whether course related or not, about how often have you organized others to work on state, national, or global issues?
- 12. Question TS\_2:** Whether course related or not, about how often have you made a speech to a group?

**13. Question E\_13:** To what extent have courses allowed you to learn effectively on your own, so you can identify, research, and complete a given task?

### Appendix I: CIVC101 Data

Number of students who completed CIVC101 – AY 2014–15 at Drexel University

College	Fall Term	Winter Term	Spring Term	Total
Antoinette Westphal COMAD	2	66	268	336
Arts and Sciences	33	292	156	481
Bennett S. LeBow College of Business	93	110	160	363
School of Economics	10	9	18	37
Close School of Entrepreneurship	7	1	2	10
College of Computing and Informatics	5	207	12	224
College of Engineering	5	413	335	753
School of Tech & Professional	0	1	0	1

Studies				
Nursing and Health Professions	237	3	15	255
Pennoni Honors College	0	0	1	1
Public Health	0	12	0	12
School of Biomed Engineering	141	2	5	148
Hospitality & Sports Management	2	48	6	56
School of Education	1	14	3	18
Totals	536	1178	981	2695

### Number of Students and Hours at Partner Orgs

Community Partner	Fall Term: Students/Hours	Winter Term: Students/Hours	Spring Term Students/Hours
Books Through	11/99	8/72	14/126

Bars			
Broad Street Ministry	28/210	14/105	28/210
KEYSPOT	-/-	9/81	16/144
The Dornsife Center	33/297	33/297	35/315
DUCSTeach	-/-	17/136	5/40
Drexel Urban Growers	-/-	-/-	5/40
Franklin Institute	-/-	279/558	196/392
Habitat ReStore	53/424	78/624	42/336
HMS School	-/-	12/96	-/-
Introduce a Girl to Engineering Day	-/-	51/153	-/-
Lindy Scholar Saturdays	-/-	11/110	11/110
Lombard Soup Kitchen	15/120	19/152	27/216

MANNA	92/828	95/855	98/882
Materials Day	-/-	17/51	-/-
Mission Continues	-/-	-/-	12/96
Moder Patshala	-/-	38/304	29/232
Mount Moriah	67/670	-/-	96/960
Old Pine After School	30/300	36/360	37/370
People's Emergency Center	18/180	22/220	12/120
Philabundance	8/56	47/329	19/133
Philly AIDS Thrift	-/-	75/675	99/891
Puentes de Salud	-/-	15/135	11/99
Salvation Army	-/-	-/-	37/296
Saturday for Seniors	15/120	17/136	16/128
Spells Writing	17/136	27/216	24/192

Lab			
SquashSmarts	31/279	35/315	19/171
Uhuru	49/294	78/468	55/330
Urban Tree Connection	7/63	-/-	39/351
US Dream Academy	37/296	68/544	43/344
Wright Rec	59/472	47/376	29/232
YouthBuild	9/81	30/270	15/135
Totals	579/4925	1178/7638	1069/7891



### Appendix J: Supplementary Tables

Table J1

*Crosstabulation DP 1: Institution Events That Emphasized Social Difference –To what extent have events or activities offered at your institution emphasized perspectives on societal differences (economic, ethnic, political, religious, etc.)?*

			Institution events that emphasized social difference			Total
			Some	Quite a bit	Very often	
Institution events that emphasized social difference	Very little	Count	1	0	0	1
		% within institution events that emphasized social difference	8.3	0.0	0.0	4.0
	Some	Count	10	4	2	16
		% within institution events that emphasized social difference	83.3	57.1	33.3	64.0
	Quite a bit	Count	1	1	2	4
		% within institution events that emphasized social difference	8.3	14.3	33.3	16.0
	Very often	Count	0	2	2	4
		% within institution events that emphasized social difference	0.0	28.6	33.3	16.0
	Total	Count	12	7	6	25
		% within institution events that emphasized social difference	100.0	100.0	100.0	100.0

Table J2

*Crosstabulation GP 1: How much do you agree or disagree with the following statements? When I notice cultural differences, my culture tends to have the better approach.*

			When I notice cultural differences, my culture is the best				Total
			Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	
When I notice cultural differences, my culture is the best	Strongly Disagree	Count	0	1	0	0	1
		% within when I notice cultural differences, my culture is the best	0.0	14.3	0.0	0.0	4.0
	Disagree	Count	0	3	0	0	3
		% within when I notice cultural differences, my culture is the best	0.0	42.9	0.0	0.0	12.0
	Neither Agree or Disagree	Count	3	3	11	1	18
		% within when I notice cultural differences, my culture is the best	100.0	42.9	84.6	50.0	72.0
	Agree	Count	0	0	2	1	3
		% within when I notice cultural differences, my culture is the best	0.0	0.0	15.4	50.0	12.0
	Total	Count	3	7	13	2	25
		% within when I notice cultural differences, my culture is the best	100.0	100.0	100.0	100.0	100.0

**Chi-Square Tests for Crosstabulation GP 1**

	Value	df	Asymp. Sig. (2-sided)
McNemar-Bowker Test	7.333	4	.119
N of Valid Cases	25		

Table J3

*Crosstabulation GP 6: How much do you agree or disagree with the following statements? I am informed of current issues that impact international relations.*

			I am informed of current issues that impact international relations				Total
			Disagree	Neither Agree or Disagree	Agree	Strongly Agree	
I am informed of current issues that impact international relations	Disagree	Count	1	3	0	0	4
		% within I am informed of current issues that impact international relations	100.0	50.0	0.0	0.0	16.0
	Neither Agree or Disagree	Count	0	2	5	0	7
		% within I am informed of current issues that impact international relations	0.0	33.3	35.7	0.0	28.0
Agree	Count	0	1	9	1	11	
	% within I am informed of current issues that impact international relations	0.0	16.7	64.3	25.0	44.0	
Strongly Agree	Count	0	0	0	3	3	
	% within I am informed of current issues that impact international relations	0.0	0.0	0.0	75.0	12.0	
Total		Count	1	6	14	4	25
		% within I am informed of current issues that impact international relations	100.0	100.0	100.0	100.0	100.0

**Chi-Square Tests for Crosstabulation GP 6**

	Value	df	Asymp. Sig. (2-sided)
McNemar-Bowker Test	6.667	3	.083
N of Valid Cases	25		

Table J4

*Crosstabulation GP 12: How much do you agree or disagree with the following statements? I know how to analyze the basic characteristics of a culture.*

			I know how to analyze the basic characteristics of a culture				Total
			Disagree	Neither Agree or Disagree	Agree	Strongly Agree	
I know how to analyze the basic characteristics of a culture	Disagree	Count	0	2	2	0	4
		% within I know how to analyze the basic characteristics of a culture	0.0	25.0	13.3	0.0	16.0
	Neither Agree or Disagree	Count	1	3	5	0	9
		% within I know how to analyze the basic characteristics of a culture	100.0	37.5	33.3	0.0	36.0
	Agree	Count	0	3	8	1	12
		% within I know how to analyze the basic characteristics of a culture	0.0	37.5	53.3	100.0	48.0
Total	Count	1	8	15	1	25	
	% within I know how to analyze the basic characteristics of a culture	100.0	100.0	100.0	100.0	100.0	

Table J5

*Crosstabulation GP 13: How much do you agree or disagree with the following statements? I put the needs of others above my own personal wants.*

			I put the needs of others above my own perspective			Total
			Neither Agree or Disagree	Agree	Strongly Agree	
I put the needs of others above my own perspective	Disagree	Count	2	1	0	3
		% within I put the needs of others above my own perspective	28.6	6.7	0.0	12.0
	Neither Agree or Disagree	Count	4	5	0	9
		% within I put the needs of others above my own perspective	57.1	33.3	0.0	36.0
	Agree	Count	1	7	2	10
		% within I put the needs of others above my own perspective	14.3	46.7	66.7	40.0
	Strongly Agree	Count	0	2	1	3
		% within I put the needs of others above my own perspective	0.0	13.3	33.3	12.0
Total	Count	7	15	3	25	
	% within I put the needs of others above my own perspective	100.0	100.0	100.0	100.0	

Table J6

*Crosstabulations GP\_18: How much do you agree or disagree with the following statements?  
Volunteering is not an important priority in my life?*

			Volunteering is not an important priority in my life				Total
			Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	
Volunteering is not an important priority in my life	Strongly Disagree	Count	4	1	0	0	5
		% within volunteering is not an important priority in my life	100.0	12.5	0.0	0.0	20.0
	Disagree	Count	0	6	5	0	11
		% within volunteering is not an important priority in my life	0.0	75.0	41.7	0.0	44.0
	Neither Agree or Disagree	Count	0	1	6	1	8
		% within volunteering is not an important priority in my life	0.0	12.5	50.0	100.0	32.0
	Agree	Count	0	0	1	0	1
		% within volunteering is not an important priority in my life	0.0	0.0	8.3	0.0	4.0
Total	Count	4	8	12	1	25	
	% within volunteering is not an important priority in my life	100.0	100.0	100.0	100.0	100.0	

**Chi-Square Tests for Crosstabulation GP 18**

	Value	df	Asymp. Sig. (2-sided)
McNemar-Bowker Test	3.667	3	.300
N of Valid Cases	25		

Table J7

*Crosstabulation CE 13: Whether course related or not, about how often have you organized others to work on local or campus issues?*

			How often organized others to work on local or campus issues			Total
			Sometimes	Often	Very often	
How often organized others to work on local or campus issues	Often	Count	3	2	3	8
		% within how often-organized others to work on local or campus issues	75.0	25.0	23.1	32.0
	Very Often	Count	1	6	10	17
		% within how often organized others to work on local or campus issues	25.0	75.0	76.9	68.0
Total		Count	4	8	13	25
		% within how often organized others to work on local or campus issues	100.0	100.0	100.0	100.0

Table J8

*Crosstabulation CE\_14: Whether course related or not, about how often have you organized others to work on state, national, or global issues?*

		How often organized others to work on state, national or global issues				Total
		Never	Sometimes	Often	Very often	
How often organized others to work on state, national or global issues	Count	0	1	0	0	1
	Sometimes % within how often organized others to work on state, national or global issues	0.0	33.3	0.0	0.0	4.0
	Count	0	1	2	1	4
	Often % within how often organized others to work on state, national or global issues	0.0	33.3	25.0	7.7	16.0
	Count	1	1	6	12	20
	Very Often % within how often organized others to work on state, national or global issues	100.0	33.3	75.0	92.3	80.0
	Count	1	3	8	13	25
	Total % within how often organized others to work on state, national or global issues	100.0	100.0	100.0	100.0	100.0



Table J9

*Crosstabulation TS 2: Whether course related or not, about how often have you made a speech to a group?*

			Made a speech to a group				Total
			Never	Sometimes	Often	Very often	
Made a speech to a group	Never	Count	2	1	1	0	4
		% within made a speech to a group	50.0	11.1	12.5	0.0	16.0
	Sometimes	Count	2	7	5	0	14
		% within made a speech to a group	50.0	77.8	62.5	0.0	56.0
	Often	Count	0	0	2	4	6
		% within made a speech to a group	0.0	0.0	25.0	100.0	24.0
	Very often	Count	0	1	0	0	1
		% within made a speech to a group	0.0	11.1	0.0	0.0	4.0
Total	Count	4	9	8	4	25	
	% within made a speech to a group	100.0	100.0	100.0	100.0	100.0	

**Chi-Square Tests for Crosstabulation TS\_2**

	Value	df	Asymp. Sig. (2-sided)
McNemar-Bowker Test	11.333	5	.045
N of valid cases	25		

Table J10

*Crosstabulation E 13: To what extent have courses allowed you to learn effectively on your own, so you can identify, research, and complete a given task?*

			Contributed to your learning effectively on your own		Total
			Often	Very often	
Contributed to your learning effectively on your own	Occasionally	Count	1	0	1
		% within contributed to your learning effectively on your own	7.7	0.0	4.0
	Often	Count	10	6	16
		% within contributed to your learning effectively on your own	76.9	50.0	64.0
	Very often	Count	2	6	8
		% within contributed to your learning effectively on your own	15.4	50.0	32.0
Total	Count	13	12	25	
	% within contributed to your learning effectively on your own	100.0	100.0	100.0	