CHAPTER 5

MINDING THE GAP: WRITING-RELATED LEARNING IN/ ACROSS/WITH MULTIPLE ACTIVITY SYSTEMS

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In the face of budget reductions and reorganizations, universities and colleges have been confronted with calls for greater accountability in the education they provide, at all levels. Professionals deeply invested in education should be involved in actions that assess the effect of programming, curricula and the instruction that takes place in our classrooms. Approaching assessment in a manner that accounts for the kind of deep critical thinking and situated learning that leads to successful transfer of knowledge and skills from the classroom to new environments is a daunting challenge. Even using the term *transfer* comes with inherent problems that imply what Wardle (2012) refers to as a "carry and unload model" of learning, which suggests that students transport their learned knowledge and skills to new communicative contexts (see also Donahue, this volume). Unfortunately, universities today are pressured by legislators and other stakeholders to use simplified terms for learning such as "transfer" and measures of learning such as standardized testing that "limit the kind of thinking that students and citizens have the tools to do" (Wardle, 2012, par. 7). The study presented here is part of ongoing research into how we can best understand the learning students undergo in the critical transition from high school to college and how they transfer that learning into new situations.

RESEARCH QUESTIONS AND PURPOSE

A theory prevalent in the *Elon Statement*, which operates as a framework for the present study, involves activity systems. This three-year study progressed toward an examination of the way "[s]tudents routinely move among activity systems (including curricular, co-curricular, and extra-curricular contexts)" in order to develop a better understanding of learning transfer (*Elon Statement*, 2015, p. 3). The purpose of this research is to identify for stakeholders in the field of composition

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and beyond the skills and knowledge (learning) that transfer with high school students as they become first-year college students and then navigate their ways through their undergraduate academic experiences. To that end, the term transfer is used, but is thought of in a messier sense, like that which Wardle (2012) envisions when using "repurpose" (see Glossary). This research explores how service learning in higher education affects learning transfer of composition knowledge and skills. Though there are studies looking at bridging programs, none focus on four-year scholarship programs that bridge the gap during this critical transition from high school to college, for composition students or in any other discipline. There is currently a paucity of research into summer bridge programs (Barnett et al., 2012). This research examines the impact of helping students who are part of a four-year scholarship program bridge the gap from high school to college and make connections to both their communities and their composition curriculum for greater success and learning transfer. This study provides an overview of three research phases and the concepts they offer about learning transfer.

LITERATURE REVIEW AND RESEARCH RATIONALE

Faculty members outside writing studies often question the learning students do in composition classrooms. According to Beaufort (2007), a common problem for writing students is their inability to transfer writing-related learning in college composition to classes beyond first-year writing. Beaufort explained that faculty often question "why graduates of freshman writing cannot produce acceptable written documents in other contexts" (2007, p. 6). Carroll also noted that faculty outside English composition "who are faced with student writing that does not meet their expectations, ask why students who have completed English I and II, usually with good grades, still cannot 'write'" (2002, p. 61). Knowledge that students acquire from composition instruction not being considered useful in other writing contexts has been a growing concern since the early 1990s. Nowacek says that "faith in the transfer of writing-related knowledge has been challenged by questions about the viability of first-year composition curricula" (2011, p. 2). Yet, as noted above, Wardle (2012) points out that at least part of this problem stems from the way people outside composition studies talk about and view the process of learning, especially in the area of written composition.

Clearly, writing practitioners must research instruction in writing and its effect, which is why the ERS was developed and the different ERS cohorts studied a variety of transitions critical to learning composition and the transfer of that learning. As a larger cohort, we ERS participants drew on several writing studies theories and concepts to research learning transfer. The framework most prevalent in this current study was activity systems theory, informed primarily by two approaches

to activity systems theory, the first by Tuomi-Gröhn and Engeström (2003) and the second by Russell and Yañez (2003) (see Glossary). For this study, I have expanded and applied their notions of boundary-crossing to the learning students take with them when they travel to one community from another within a larger community—such as when they go from co-curricular activities to curricular or extracurricular activities, in the college environment or beyond college contexts, especially when crossing such boundaries intentionally and collaboratively.

In addition to the boundary-crossing concept and activity systems theory, the present research explores the question Moore makes in "Mapping the Questions: The State of Writing-Related Transfer Research" where she asks, "How do institutional characteristics shape activity systems?" (2012, para. 11). The research here maps progress in writing-related learning of four small groups of students in three related but diverse approaches to research in order to explore what makes for successful learning transfer. The college where the bulk of data were collected is a small, private, liberal arts college. The high school where some data were collected is similar. Moore notes, "Research-intensive universities play a dominant role as cartographers of writing-related transfer maps" (2012, "Adding Detail," para. 3), so it is prudent to look to the research of those studies. However, it is also important to look briefly to other transfer studies done by researchers in college contexts more similar to mine, such as those conducted by Carroll (2002), Nowacek (2011), and Moore, Pyne, and Patch (2013) to think about how, where, and why common and divergent findings emerged in the less dominant and less research-intensive institutions.

Carroll's (2003) findings from a study of students at a small liberal arts college reiterated the notion that writing is a complex activity that students learn over time while developing skills and knowledge, in the process of engaging with and crossing boundaries into a variety of activity systems of communities of people, tools, and texts. Her findings, however, might not be applicable to student populations that diverge greatly from the students in her study or at significantly different institutions. Nowacek (2011), who also studied student learning at a another small liberal arts college offers interesting insights about the ways the term transfer is used, distinguishing differences between kinds of transfer along a spectrum including *successful*, *frustrated*, *negative*, and *zero*. She contrasts these notions of transfer to her concept of *integration*, which she also puts on a spectrum perpendicular to the transfer spectrum (Nowacek, 2011, p. 41). Nowacek uses the term integration, or *integrative learning*, saying that successful integration is a metacognitive action, while transfer in its various forms suggests a degree of unconscious transfer of knowledge/skills in writing. Moore et al. conducted a study of the transfer of learning that connects in many ways to the present study in terms of context, focusing on

a bridging program to better prepare underrepresented students by offering "mentorship, support, cognitive and social enrichment, and a space to practice college-ready skills (both academic and personal)" (Moore et al., 2013, para. 4). Their study examined the Elon Academy/writing program partnership at a small liberal arts college and writing program modifications made to support Elon Academy students. The Elon Academy course focused solely on writing so students could learn to "hone strategies for balancing the additional responsibilities many underrepresented students might bring with them to the college classroom" (Moore et al., 2013, para. 8). The Elon Academy was fully funded, so students in the study were given "the opportunity to earn free college credit as a tangible financial benefit, especially given the cost of a regular Elon summer session" (Moore et al., 2013, "Understanding Our Students," para. 4). The study looked at the students' participation in the larger goals of the overall program. One finding especially resonates with the present study, which was that student reflections on learned practices in the program should be intentionally integrated throughout, as they were successful in helping students document their learning.

INSTITUTIONAL CONTEXTS

The study presented here progressed through three phases of research. It began with an initial collection of high school and college students' perceptions about the goals of English classes in high school and/or college. For the second phase, based on phase one data, like-minded college administrators, faculty, and staff developed a summer bridging course with measurable goals and offered it to a cohort of incoming first-year students who were accepted into a four-year scholarship program. Surveys designed to measure the program's success were administered at the end of the summer and again at the end of the first academic year. For the third phase, I conducted a focus group with three of the scholars at the end of their second academic year; they looked back at their college experience thus far and discussed their learning. The results are rhetorically driven and situational in that the learning environment and the communities developed within it played a large role in shaping the perceptions of the students' learning and experiences.

Context of Phase One: Harding Fine Arts Academy and Oklahoma City University

Part of the first phase of the research was conducted with a group of Harding Fine Arts Academy (HFA) high school seniors in the second semester of school in late March, after many of them had taken placement tests and applied for admittance

into colleges. This high school is a small charter school located just northwest of the city center in Oklahoma City. It has a diverse student population of 29% white students and 71% underserved ethnicities and mixed-race students, and a growing waiting list for admission each semester. HFA is within walking distance of the Paseo Arts District where First Friday Art walks take place each month. Many of the artists and gallery owners in the Paseo are actively involved with HFA. The high school's mission is "preparing students for college in an academically challenging, arts-integrated environment" (Harding Fine Arts, 2014). It has been designated an Oklahoma A+ School, which is a prestigious designation in Oklahoma and requires a stringent evaluation process. Performing and fine arts are integrated into the curricula, and creativity in teaching and learning are highly encouraged. Another important HFA value is community service. Seniors conduct year-long projects that involve community service, which they write and give presentations about. HFA is only a mile and half from Oklahoma City University (OCU) and has developed a strong connection to it in the past three years. The number of HFA students who attend the university has doubled each year, from two in 2012, to four in 2013, to eight in 2014.

The other part of the phase one research was made up of first-year composition students at OCU, which, like HFA, is located in the northwest quadrant of the city, but within the city center near the state Capitol. It is a small, private university affiliated with the United Methodist Church, and it has a student population of about 2,000 undergraduate students. OCU has a religious foundation and strong commitments to service and interfaith dialogue. Like Elon University, OCU is a college primarily dedicated to undergraduate education and engagement, though OCU does have graduate programs in business, creative writing, dance, law, music, nursing, public administration, theatre, and religion. OCU is well known for its performing and fine arts programs, and the university is strongly connected to the arts locally and nationally. There is much overlap in values between HFA and OCU, especially with regard to the arts, service to the community, and diversity. Close to a fourth of the incoming student population over the past three years at OCU has come from underserved ethnicities. Service is required at both schools.

Context of Phases Two and Three: Mind the Gap and Clara Luper and American Indian Scholars

The students in phases two and three of the study were from a group of scholars coming into OCU in the summer of 2012 through the Clara Luper and American Indian Scholarship program, a program designed to attract diverse students from underserved populations who have a strong commitment to servant-leadership. Administrators, faculty, and staff involved in a faculty learning community

designed a summer bridging program that all incoming Clara Luper and American Indian Scholars were required to attend called Mind the Gap. One overarching goal was to help the students create and become part of a stronger and more cohesive community of first-year scholars through various co-curricular, extra-curricular, and curricular activities to help them grow and sustain their sense of community as a cohort for their four years at OCU.

Other goals of the Mind the Gap program were to strengthen students' learning at a critical transition, to provide multiple contexts across which students could practice their learned skills/knowledge, and to fortify the connections students made between academics and serving their communities. Mind the Gap was not a regular bridging program. There were some similarities to other bridge programs, as most summer bridge programs are designed for underserved populations (Barnett et al., 2012). However, Mind the Gap was different in at least two important ways. One, many bridge programs also seek to "reduce or eliminate the need for developmental education in colleges" (Teachers College, 2013). Mind the Gap was not looking to place would-be developmental students. Mind the Gap students were talented students whose admissions files were similar to the rest of the incoming first-year students with grade point averages (GPAs) that were slightly higher and SAT/ACT scores slightly lower, but not to a statistically significant degree in either case. The other major difference from other bridging programs is that Mind the Gap students were coming into a four-year scholarship program—not the norm for bridging programs, which typically provide that connection between high school and college but do not usually monitor those students in an intentional way throughout their time in college. Mind the Gap students who were coming in as Clara Luper and American Indian Scholars were required to complete 150 hours of community service per year, so students were also selected by their community service experience. This study focuses on the data gathered from the students who were in first-year composition in Mind the Gap.

RESEARCH METHODOLOGY

Methods for Phase One

The first phase of research was exploratory in that grounded theory approach was used to conduct a naturalistic type of inquiry employing Lincoln and Guba's (1985) emergent design concept. To guide more focused research in later phases and to better understand writing-related transfer, questionnaires were used to discover what HFA senior English students and OCU first-semester college composition students thought they learned in their required English classes. The

first phase in the study was designed to offer a general picture of learning from these students' standpoints and to allow hypotheses and conclusions about writing-related learning to begin emerging naturally.

The student groups responding to the initial questionnaires consisted of 47 HFA seniors who volunteered to participate out of the senior class of 80, and 59 first-year OCU students who self-selected to participate from four English Composition I classes with 20 students in each (Composition I is the first of the two-sequence general education requirement for first-year composition). Two of the seniors in the HFA group were already admitted to OCU at the time and planned on going to OCU in fall 2012. The questionnaire was focused on the following questions about students' perceptions of the English classroom:

1. Based on your experience, whatever you have seen, heard, or discussed, tell me what you perceive to be the goals for reading, writing, or using technology in [high school English and/or writing classes/college English and/or writing classes].
2. Please describe any skills or strategies that you have learned in your English classes that you have been able to apply outside the specific class where they were learned? (These could be in other classes, or outside the school context.)

Methods for Phase Two

The second phase of the research highlighted whether students' intentional boundary-crossing and entering (and reentering) multiple activity systems with a cohort and a common set of goals would make for stronger transfer of learning regarding students' perceptions of their own preparedness for new situations beyond first-year composition. This secondary research, prompted by answers from the first phase, became the topic of many conversations in a faculty learning community attended by a handful of administrators and staff from the Clara Luper and American Indian Scholarship program and faculty who were interested in connections among learning in and out of the classroom, community service, and democratic education—a concept coined by Saltmarsh and Hartley (2011) to refer to a curriculum that encourages students to act intentionally as agents of change in the community. The Mind the Gap summer bridging program was conceived in the course of these lengthy discussions as one that would require the incoming scholars to take one of three required general education courses—College Algebra, English Composition I, or World Religions—in addition to a one-unit studies skills class. The curricular activities worked together with co-curricular and extra-curricular activities that would strengthen

community engagement and collaboration. We constructed a survey instrument to assess learning transfer and community building to be given to students just after the summer Mind the Gap program and again at the end of the academic year. This second phase of the study focused on the survey results from the English Composition I scholars and the level of success and preparedness they felt the bridging program gave them.

Forty-two incoming first-year students were selected for the four-year scholarship program and Mind the Gap. One student was from the HFA phase one research group, and all were from socially, economically, or ethnically underrepresented groups. Fifteen of the students were in English Composition I, 15 were in College Algebra, and 12 were in World Religions. The entire group was also in a one-unit studies skills class. The number of composition students completing the survey was 12 at both points in the year. (The 13 survey questions and student responses are found in Table 5.2, Phase Two Results.) Two different statistical tests were run with a 95% confidence level on the two sets of survey data: the T-test for a difference in means and a general linear model regression with fixed effects to look for probable statistical difference between the two sets of responses.[1]

Methods for Phase Three

The third phase of the research was a case study focused on perspectives from three of these Mind the Gap scholars who engaged in much reflection about their learning in the initial bridging program, their two composition classes (the second of which was a service learning course), the many contexts in which they continued to serve, and formal presentations they offered about their learning and community engagement experiences.

These three students in the first Mind the Gap cohort in 2012 volunteered to collaborate on sharing their discoveries and experiences at a regional service learning conference and subsequently engaged in a conversation about their learning in an informal focus group discussion. These students represent the diversity of the scholarship program: Harley is Native American, Juan is Hispanic, and Josh is African-American. These young men are also first-generation college students. Harley is a sports science major, Juan is a business major, and Josh is a pre-medical major. These three students have become very close to one another because of their scholarship program, Mind the Gap, and their participation in the present research despite being in different degree programs. The focus group itself was informal in that it was a conversation, which was video-taped in a conference room. That conversation was prompted by three questions. The section titled "Findings for Phase Three" below goes into greater detail about those questions and the students' responses.

RESEARCH FINDINGS

Findings for Phase One

The initial research suggested that the OCU students were more confident about their knowledge and skills in writing than the HFA students. In general, the students who engaged in experiential learning in the contexts of serving their communities seemed to have a strong sense of community in addition to demonstrating writing-related transfer. This conclusion is supported by Tuomi-Gröhn and Engeström (2003) and Russell and Yañez (2003) in notions of boundary-crossings, genres, and activity systems.

Two important trends emerged from the questionnaires, which provided some insight into learning transfer and helped shape the research that followed in the second phase. The two areas of focus were based on (1) specific answers to the questions that speak to categories and contexts of writing and (2) responses that stood out as more articulate than the other responses demonstrating strong writing abilities, which may have been learned or were at least strengthened in the students' English classes.

In terms of writing and the contexts where it happens, the categories of writing that emerged in the students' answers fell into eight different writing skills/knowledge areas. Two research assistants and I looked for common trends in the students' responses and used the "OCU English Department Composition Outcomes Statement" (see Appendix C) developed collaboratively by OCU composition faculty in conjunction with the national "WPA Outcomes Statement" (Council of Writing Program Administrators, 2014). Using the OCU outcomes as a general guide, two research assistants and I identified emerging trends in skills/knowledge areas, which became categories for the purpose of reporting these results (see Table 5.1, Phase One Results). The categories progress from lower-order writing skills/knowledge that are looking at language and writing at the sentence level to higher-order skills/knowledge that are more global. Higher-order skills/knowledge are conceived of here as more global following Bean's explanation as "ideas, organization, development, and overall clarity," while lower-order concerns are more surface-level, such as "grammatical errors, punctuation mistakes, and awkwardness of style" (2001, pp. 243–246). Citation as a technical skill will be categorized as lower-order skill/knowledge. In addition to the categories of writing, student responses referred to nine specific writing contexts where they said their writing occurred (Table 5.1).

Of the eight categories of writing, college students spoke specifically to seven of the categories significantly more than high school students, suggesting that in college, a greater number of the OCU students perceived themselves to have learned more skills/knowledge than their HFA high school counterparts. The

Table 5.1. Phase One results, questionnaire with high school and college student—Percentage of student responses addressing each category and context of writing

Specific Writing Skills &/or Strategies	High School	College
Syntax, grammar, punctuation, or spelling	8.69%	15.87%
Style, word choice, or citation formats	36.17%	22.22%
Composition organization, structure, or cohesion	4.25%	14.29%
Strategies or processes for approaching reading, writing, or speaking	14.89%	60.32%
Researching, evaluating, or analyzing sources	12.76%	33.33%
Use of support, evidence, details or explanations	—	22.22%
Critical thinking, reading, writing, or speaking	25.53%	38.1%
Modes, genres, forms or types of written compositions	4.25%	32.14%
Specific Tasks or Contexts in Which Strategies or Skills are Used		
Standardized tests	—	9.52%
College applications	42.55%	—
Scholarship applications	6.38%	3.12%
Job applications	—	1.59%
Literacy tasks in other classes	25.53%	20.63%
Self-expression/personal enjoyment	6.38%	—
Serving/volunteer work	2.1%	5%
Collaborative work	2.1%	—

seven categories included all but the category of "Style, word choice, and citation formats." The HFA high school students spoke more to that one category than the OCU college students. Another category that was not expressed by any HFA high school students was the category "Use of support, evidence, details, or explanation." Thus, the OCU college students spoke to one more writing category of higher-order thinking than the HFA students, and the HFA high school students spoke to one more lower-order writing category than did the OCU students.

With regard to contexts where students said they used their writing abilities, responses that referred to contexts where students used writing varied more than the categories of writing. HFA high school students referred only to contexts of "College applications," "Scholarship applications," "Literacy tasks in other classes," "Self-expression/personal enjoyment," Serving/volunteer work," and "Collaborative work." They did not mention "Standardized tests" or "Job applications" (this is expected because, according to the HFA principal, only a

very small number of HFA students work while in school or take standardized tests requiring written portions such as the SAT). The contexts that both groups mentioned were "Scholarship applications," "Literacy tasks in other classes," and "Serving/volunteer work." The two remaining contexts that only the college students referred to (as noted above) were "Standardized tests" and "Job applications." The responses about contexts of "Serving/volunteer work" were mentioned by three students, one HFA and two OCU students. These three responses claimed and demonstrated successful integration, to use Nowacek's term, of writing skills/knowledge, meaning they were cognizant of their knowledge and skills and demonstrated it.

Findings for Phase Two

The survey data gathered shows an interesting trend numerically, though, as noted above, it is not statistically significant (see Table 5.2, Phase Two Results, for the numerical breakdown). The survey used a Likert scale ranging from 1 to 6 asking students to rate their level of success in each of the 13 subject areas with a "6" being the highest success and a "1" being the lowest. As noted above, two different statistical tests were run with a 95% confidence level: the T-test for a difference in means and a general linear model regression with fixed effects. Results suggest that we can say there is not a significant difference between the mean of the first data set and the mean of the second. Nonetheless, there is a definite upward trend happening.

The average of all but one survey response in the initial survey completed in early fall fell between 4.5 and 5.5. The one that fell below 4.0 was "Your ability to work toward learning goals set up in your degree program." The average of the 12 student responses for that particular subject area was 3.31, making it the area in which students initially saw the least success. The strongest response in the initial survey was a 5.17 average to "Your belief that the program has influenced your individual growth." Overall, the students' initial responses were generally positive toward reaching the goals we set up for the Mind the Gap program, as shown in the initial survey results just a few weeks after they finished the summer program and began their fall semester. Our second set of survey data from these students with the same survey showed an increased sense of success by the students, which suggests that students had a stronger sense of learning transfer in the subject areas we outlined as important to the program and students' learning in it. All of the averages in the answers to the second survey done at the end of the spring semester were higher. The one subject area that engendered the biggest jump in numbers was the one that had the lowest response in the first survey taken: "Your ability to work toward learning goals set up in your degree

Table 5.2. Phase Two results, survey response from summer 2012 Mind the Gap students

On a Scale From 1–6 Rate Your Level of Success in Each Area	Fall Data Average	Spring Data Average
Your academic learning/development so far this semester	4.69	4.75
Your ability to change how you're studying when you see a need	4.54	4.67
Your general feelings of marked progress toward accomplishing learning goals in your classes	4.69	4.75
Your continued development or progress in your academic writing	4.54	4.67
Your ability to work toward learning goals set up in your degree program	3.31	4.67
Compared to other freshman, how do you rate your understanding of what it means to be a university student? (1 is less, 6 is more)	4.62	4.75
Your belief that having academic work in both classes that worked together to acclimate to college life	4.77	4.83
Your belief that the academic work you did in conjunction with your servant leadership activities in OKC community helped to acclimate you to college life	4.92	5
Your belief that the synergy of academic work, servant-leadership activities, and Mind the Gap cohort activities you did acclimated you to college life	5.08	5.17
Your belief that your leadership skills have been enhanced as a result of this program	4.67	4.83
Your belief that the program has influenced your individual growth	5.17	5.25
Your belief that your sense of responsibility to the community (OCU and/or OKC) has been enhanced as a result of this program	4.92	5.08
Your belief that the overall program has helped you prepare for college success	5	5.25

program." The average of the second survey answers to that subject area was 4.67, up 1.36 points from 3.31 in the initial survey.

Findings for Phase Three

The aim of the Phase Three informal focus group was informed by the study of Bergmann and Zepernick, who, in reviewing research on the development of writers in the academy, noted that there is a widely held "optimistic fiction" by students and faculty across universities that there is an "orderly progression implied by FYC-to-writing-in-the-disciplines model" (2007, p. 125). They also explained that many studies show that "students' conceptions of learning to write

are composed of some combination of individual experience and peer culture" (Bergmann & Zepernick, 2007, p. 126). The third phase focus-group discussion about writing with these three student-scholars pointed to the importance of experiences and peer collaborations as they were each learning to write for the academy in general, and more specifically in each one's prospective discipline. Also, the experiences these three had in crossing boundaries into a variety of different activity systems over the past year and a half gave them a stronger sense of transfer of learning in writing knowledge/skills. Using Nowacek's spectra will help flesh out the complexity of their responses in greater depth in the "Discussion" section below.

Table 5.3a. Phase Three results, focus group responses to question one

What literacies did you develop and/or strengthen in the context of your English composition classes in college?
Using social networking media (email, Facebook, group messaging, texting)
Citing correctly
Researching
Annotating sources
Paraphrase and summarize
Bringing the parts of the process altogether
Critiquing peers' papers
Communicating thoughts through research and writing
Confidence in communicating through speech or writing

Table 5.3b. Phase Three results, focus group responses to question two

Of the literacies from your answer to question one, which of those literacies have you continued to use, build on or develop and how?
Researching
Using research to interpret literature/interpreting literature
Writing essays/papers in other classes
Collaborating on presentation projects
Presenting/speaking about research to academic audiences
Answering questions in a formal presentation
Working with people/public in work contexts
Writing papers for a public audience
Confident in writing for new situations
Service learning experience (as opposed to learning out of books, computers, etc.)

Table 5.3c. Phase Three results, focus group responses to question three

Which literacy activities from composition classes in college do you feel have prepared you for tasks in other contexts?
Brainstorming to develop ideas
Citing properly
Summarizing
Researching
Write longer papers
Confidence in writing (more relaxed with the process)
Better communicate in writing
Service learning has given me a sense of gratitude
Reflecting

DISCUSSION

This study began in the first phase with an emergent design in grounded theory, which allowed for salient themes to guide the direction of the subsequent two phases of the study. It was assumed that when students claimed that they had learned knowledge or skill in writing, at some level they had. Nowacek's (2011) two spectra of transfer and integration of learning are useful here to understanding students' learning: on one axis are the various levels of transfer, and on a perpendicular axis are the various levels of integration. The transfer axis refers to their learning, which is more of an unconscious activity, while integration refers to their metacognitive awareness of learning. All but three of the HFA and OCU students said they gained knowledge and skills but seemed not to be cognitively aware enough to also demonstrate that learning in their responses. Three students, one HFA high school student and two OCU college students, said they gained knowledge and skill and were consciously aware enough about the meaning of those claims to also show those gains.

Also useful to consider is the research of Bergman and Zepernick, who explored students' sense of literacy learning and found that their understandings of their learning could be "read as representations of students' own perceptions of how and where they learned to write and, most of all, what students believe themselves to be learning—what knowledge and skills they understood themselves to acquire" (2007, p. 126). When, in responding to the questionnaire, students talked about their learning with terms that referred to different skills or knowledge in writing, they were indicating familiarity with writing and the ways they learned to refer to those various aspects of writing—both higher-order and

lower-order aspects. But in doing so, many of them did not also demonstrate their ability to use the knowledge and skills they discussed.

The one HFA high school student and two OCU college students who talked about higher- and lower-order skills and knowledge, and who also demonstrated their use of them, were also the students who were describing crossing boundaries of activity systems. These three detailed and articulate responses stood out from the rest because of their understanding and use of writing knowledge/skills and of the subject matter about which they wrote. There might be many reasons they did this while others did not. Perhaps they took the questionnaire more seriously than others or they just enjoyed talking about writing and their experiences more. The emergent design does not necessarily lead to conclusions; rather, it allows for possible hypotheses to be formed at an early, exploratory stage in the research by encouraging researchers to look at salient themes.

The themes here that seemed most striking were about service learning or volunteer work. The writing stood out because the three students' responses demonstrated strength in seven of the eight categories of writing, in addition to speaking specifically toward many of them. They were the only student responses that provided specific examples of the writing contexts and thereby demonstrated "Use of support, evidence, details, or explanations." One of the student responders was an HFA high school student, who did not speak specifically to this category, and two of the student-responders were college students. The three students were also among the responders who spoke to the greatest number of writing categories for their group of students.

These three responses are noteworthy in that the writing was distinctively specific and detailed, making claims about learning and supporting the claims. They were also noteworthy when considered in light of Tuomi-Gröhn and Engeström (2003) and their emphasis on the importance of boundary-crossing. The researchers explain the notion of transfer in the context of activity systems:

> [T]his conceptualization expands the basis of transfer from the actions of individuals to the collective organizations. It is not a matter of individual moves between school and workplace but of efforts of school and workplace to create together new practices. (Tuomi-Gröhn & Engeström, 2003, p. 35)

Thus, when organizations and schools work together to create learning opportunities for students, and are intentional about it, there is great potential for transfer. Students who cross boundaries into multiple domains where teaching and learning are specifically connected stand to have learning experiences that they retain. Tuomi-Gröhn and Engeström (2003) further state that "the best way to learn is to become engaged in real-life processes of change" (p. 32). The

responses of these three who wrote articulately about their writing-related learning and service seem to confirm this claim because they explained that they knew writing concepts well and demonstrated it. The three were engaged in boundary-crossing that was intentionally connected to learning in their English classrooms. The HFA high school student was doing volunteer work at his local library, helping people with computer technology for citation format and with literature in the context of a program tied to his senior English capstone project. The two college students were in service-learning English composition classes and were working in the community, their work also being directly connected to a writing curriculum. One was working at a national memorial museum updating archives, and the other was working in the office at a school for the disabled creating and updating informative literature for the school.

All three students used their learning about language and writing from one space, the English classroom, in another space where they saw its value in a new light. That this boundary-crossing from one activity system to another and back makes for greater learning transfer is supported by Russell and Yañez (2003). They explain that students often feel a sense of alienation in meeting general education requirements in college such as the writing requirements. They further note that the alienation "may be overcome when students, with the help of their instructors, see the textual pathways (genre systems) of specialist discourse leading to useful knowledge/skill in their activity systems beyond the course as specialists in other fields or as citizens" (2003, p. 3). The learning that happens in the classroom can often be better understood by students when they are able to see its value and use beyond the classroom. Boundary-crossing seemed to have aided in the learning transfer for the three students such that their learning experiences stayed with them longer or more dominantly than for their counterparts.

This line of thinking about the students' responses, boundary-crossing, and activity systems led to the second phase in the present study, which was more intentionally focused on learning as it relates to students crossing boundaries into multiple activity systems. Lave called for "a rethinking of the notion of learning, treating it as an emerging property of a whole person's legitimate peripheral participation in communities of practice" (1991, p. 63). Thus, for Phase Two, the Mind the Gap program was built so students could be part of a community of practice within the larger university community that would aid them in the critical transition from high school to college, but would also give them multiple activity systems to cross boundaries into as a cohort to foster strong learning transfer.

The Clara Luper and American Indian Scholarship program was designed to give access and opportunity to underserved student populations. For the 2012–2013 academic year, 42 students were selected for the four-year scholarship pro-

gram and the summer Mind the Gap program; all were from social, economic, or ethnic minorities. Fifteen of the students were in English Composition I, 15 were in College Algebra, and 12 were in World Religions. All three classes met general education requirements. The entire group was also in a one-unit studies skills class. Mind the Gap incorporated co-curricular activities for the all of the students. The 15 students placed in the English Composition I class had 62 hours of class time with their teacher (for three college units of credit), 12 hours of studies skills (for one college unit of credit), 35 hours of community service, and 15 hours of fun and/or team-building activities over the five weeks of summer school. All students lived in the dormitories. For the community service, students worked one of three places engaging in literacy tasks: at the Native American Student Services Office of Oklahoma City Public Schools, the Boys and Girls Club of Oklahoma County, or Positive Tomorrows, a small, private school for homeless children. For team-building and fun activities, the students started off with a ropes course, then visited cultural centers together; throughout the five weeks, they also had movie nights and shopping trips together. Faculty and staff accompanied students on many of the activities.

The larger Mind the Gap group was divided in small groups of four or five led by one or two English Composition I students starting in the third week, where they began to construct reflective digital projects to present on the final day of class. Composition students also did a significant amount of writing about their experiences and were asked to make connections between contexts they were in and the learning that took place. Like in many bridging programs, the 62 hours of composition class time included extra time scheduled for strengthening the academic piece of the program. Unlike most bridging programs, these students were part of a scholarship cohort and, as such, were a smaller community within the larger university society and will have spent much time together throughout their four years at the university. The final reflective projects were designed to help students tie together the various components of their experience, which is especially important to learning with respect to service learning and community engagement projects (Campus Compact, 2003).

Though averages of the survey responses for each subject area were slightly higher in the second survey, the difference was not statistically significant. However, this study was constructed with an emergent design for its foundation, and the trend that emerged from these surveys is consistently upward. The trend may suggest that as students gained greater perspective on their learning experiences in Mind the Gap, they looked back and saw it as being more of a success. That the averages of the answers were higher for each subject area that the survey explored may suggest the program was a success and that students saw the learning as foundational to the subsequent year they spent in college.

The results prompted the research to continue into a third phase with three of the Mind the Gap students who have shared their service learning and community engagement activities at a regional conference together, as well as reflected on the past two academic years in a focus group format. Two of the students' responses revealed strong memories of learning against the backdrop of individual experiences in the service-learning context and peer collaborations. The responses they gave demonstrate learning transfer from college composition as they finished their second year. The quotes below provide a sample of the most poignant of responses that reflect a sense of transfer of learning.

> Whenever we went to present, it was really different. What I took away from that I use at my job. I have to contact people and I was very nervous. That presentation helped me to open up and be more confident talking to people I don't know as well as being able to tell them about what our company offers.

> Last semester, Harley and I interviewed the head of Positive Tomorrows. I have already used those research skills I learned then to interview my manager at work for my summer class, as well as similar questions Harley and I used to learn more about his thoughts on the current state of the company and its organizational patterns.

These comments stood out as learning transfer, or of integrated learning as Nowacek (2011) might call it. In the first comment, the student recognized an area of communication he was cognizant of struggling with in one context and saw how the learning activities helped him become better at it in the same context. The boundary-crossing from one activity system (the workplace) to others (the learning and presentation contexts) and back again supported his learning and his awareness of the learning. The second comment also shows integrative learning: The student was conscious of the learning activity he did in one activity system that he was able to integrate successfully into the communication needs in another activity system, even though the specific context and situational needs were different.

Because these students worked together in their first year during three semesters (summer, fall, and spring) in service-learning contexts where they engaged children from the Boys and Girls Club and Positive Tomorrows in literacy activities, they participated in multiple activity systems together. Each service-learning class required much research, writing, reflection, and presentation of their experiences and research. Moreover, being scholars in the same scholarship program further engaged them with each other's development, though not as

much as the learning they did that was tied to specific curricula. Finally, their participation in the regional service-learning conference, which was largely attended by academic professionals, also served as yet another activity system in which they worked together using their language-learning from college composition. Carroll's (2002) research suggested that the interactions among different cultures and among people, including peers, tutors, teachers, and texts, helped students develop better writing-related knowledge and skills. All three of these students in the third research phase spoke to collaborating with others on presentations and critiquing each other's writing, which also strengthens the idea that their peer collaborations were an important part of the learning transfer, as supported by Carroll's findings.

The themes and trends that emerged in the Phase Three focus group conversation reflected more global thinking with regard to writing than those emerging in Phase One. In fact, the only lower-order skill/knowledge mentioned in Phase Three was citing sources, which all three agreed was developed and strengthened in college composition and useful in preparing them for tasks in other contexts. All three students gave similar answers for all three questions with regard to two literacies: confidence in writing, and researching. Also, all three students mentioned service learning in response to literacies they "continue to use, build on, or develop" and literacy activities from composition classes that they felt "prepared them for tasks in other contexts"—on one hand, as the preferred kind of learning over learning with books and computers, and, on the other, as helping them develop a deep sense of gratitude for their own situations. Another noteworthy concept is that they expressed a strong level of preparation for and comfort with speaking to public audiences, which they attribute to their learning in college composition.

The focus group conversation suggests that what stands out as most salient in their learning of composition is their confidence with taking on new writing tasks in new contexts, which is to be expected as novice writers move toward greater expertise. According to Carroll, "Students learn to accommodate the often unarticulated expectations of their professor readers, to imitate disciplinary discourse, and as juniors and seniors, to write in forms more diverse and complex than those they could produce when they arrived in college" (2002, p. 23). The responses of Harley, Josh, and Juan suggest this movement toward adaptability to new rhetorical situations they confront. Some of that confidence they developed can be attributed to the work they did in their service-learning activity systems as is suggested by the fact that it also stands out in their minds.

The contexts where these three Mind the Gap graduates saw an application of the learning they experienced in college composition also had some overlap with the responses the earlier OCU college students gave in Phase One in three

contexts: service learning, writing essays for other classes, and building resumes (similar to the job application context). Other contexts not mentioned in Phase One, but referred to in the focus group by these three students, include using research to interpret literature, collaborating on presentations, presenting/speaking about research to academic audiences, answering questions in formal presentations, working with the public/people, and writing for a public audience. All of these contexts suggest learning transfer happening as they crossed boundaries into and participated in new activity systems, while negotiating the rhetorical demands in each.

Looking back over the successes and failures of the first (the 2012 program in this study) and subsequent summer Mind the Gap programs led the administrators, faculty, and staff to conclusions about what works best to facilitate learning in an intense summer program for a diverse group of scholars. The transfer research here led the administrators overseeing the Clara Luper and American Indian Scholars program to continue with the Mind the Gap program in summer 2013 and summer 2014. The above data, the reflective presentations students did together, and the research by Moore et al. (2013) support the idea that reflection activities may have played a large role in the learning we saw. We Mind the Gap program planners felt that reflection is important, perhaps most important to the learning—that asking students to reflect on learning, to document, think about, and communicate to others what they have learned helps them to "ma[k]e note of practices to try in the future" (Moore et al., 2013, "Reflections and Recommendations," par. 5). These reflective activities were done at a variety of points, especially for the three second-year scholars in Phase Three who entered multiple activity systems of learning and communication and demonstrated learning transfer or integrated learning. Though the exploratory nature of the three research phases creates some limitations for identifying statistically significant trends, this study nonetheless offers helpful program assessment and can provide insights for similar programs and/or institutions and the learning that transpires there.

NOTE

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