Indistinct boundaries and intersections: The role of threshold concepts and disposition in students with early college credit

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Indistinct boundaries and intersections: The role of threshold concepts and disposition in students with early college credit

by

Kathy S. Rose

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Rhetoric and Professional Communication

Program of Study Committee:
Barbara Blakely, Major Professor
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The student author and the program of study committee are solely responsible for the content of this dissertation. The Graduate College will ensure this dissertation is globally accessible and will not permit alterations after a degree is conferred.

Iowa State University
Ames, Iowa
2017

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DEDICATION

To my dad, Ronald Sanders, who always knew I should do this, and for telling me “Before you write the answer, please read the question.”

To my children and their spouses: Jennifer, Matt, Bobby, Sherri, Kristina, Steven, Stephanie, Matthew, Kayla, Michelle, and Darren: thank you for your support even when you thought I was crazy. Maybe I am, but thanks for your love anyway.

To my eternal companion and helpmeet, Robin, I could not have done this without knowing that you were solidly beside me. Together we made it happen!
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I especially thank the participants for this study, for their willingness to give of their time and to dig into their memories and old assignments in order to help us understand how to be better writing teachers. It is clear to see that you care about learning. It is students like you who make a difference to those who come next.
This qualitative study investigates knowledge transfer in college students whose high school Advanced Placement (AP) or dual credit (DC) English courses enabled them to opt out of the first level of composition at Iowa State University (ISU). Although early college credit (ECC) students’ university writing performances have been studied, writing transfer has not been adequately studied in this population before. The influence of these students’ lived experiences require more consideration from scholars because of the growing number of students who enter advanced university classes by virtue of credits earned in high school.

Thirteen students from a variety of backgrounds, majors, and years at ISU participated in this study. Discourse-based interviews encouraged participants to reflect upon high school writing experiences, university writing experiences, and moments of crisis and confidence they encountered in writing “for the university” (Bartholomae). Data were analyzed inductively with a constant comparative method using disposition and threshold concept lenses since, as scholars assert, transfer is heavily influenced by attitudinal and environmental influences, especially those encouraged by educational practices. The combination of disposition and threshold concept codes has not been used as a method in writing studies before, but answers the call of writing studies scholars to more thoroughly examine all influences on students’ abilities to transfer.

Participant perceptions revealed evidence of positive transfer closely connected with generative dispositions. Instances of negative transfer revealed inability to access prior knowledge and paralytically anxious attitudes about needing to know the “right” way to proceed with assignments, revealing the tendency of some threshold concepts to
work in concert with disruptive dispositions and create barriers to transfer. Students’ writing practices and products indicated that they need not first level composition but more advanced writing guidance.

This project illuminates the need for teachers and administrators in both secondary and post-secondary settings to better understand transfer and support all students to become more successful in their college writing experiences. Ultimately it suggests that the field of writing studies is at a point where some redefining of roles and methods needs to happen, and where conversations need to occur across institutional divides.
CHAPTER 1. INTRODUCTION

“Positioned as it is at a transition point for students entering the university, the FYC course is uniquely suited to engage, develop, and intervene in students’ purposeful reflection on their learning and application of this learning to new contexts” (Reiff and Bawarshi 331).

The process of writing is complicated, as are the needs of the students who enroll in a First Year Composition (FYC) class, the standards and missions of the institutions in which they enroll, and the training and philosophies of the teachers who teach them. FYC is a course or set of courses which policy makers know are important for college graduates to have “under their belt,” but they do not necessarily understand what they are requiring; many commodify communication skills as economic endeavors or expect a onetime class to “inoculate” students with the writing abilities they need for life. Rising trends of advanced high school students taking dual credit (sometimes called concurrent enrollment, dual enrollment, or college in the high school) and Advanced Placement (AP) courses indicate that more students and parents see value in what these and other options such as the International Baccalaureate offer for this particular group of FYC students: not just challenging coursework in preparation for college work, but also a way to reduce the number of courses (and associated costs) required for graduation from the college. Post-secondary institutions accept dual college credit and AP test scores as indicators of proficiency.

Robust conversations occur in the field of writing studies about FYC content and delivery and about standardizing FYC experiences according to outcomes established by
the Council of Writing Program Administrators (CWPA) and the National Council of Teachers of English (NCTE). But high school FYC students’ experiences ought to receive more consideration from scholars. Their unique circumstances and lived experiences require that we not consider them as merely members of a general group of FYC students. The experiences and performances of this population have received little attention in the literature. Questions such as the following must be asked: To what degree are these courses in which high school students participate like the college courses they replace? What are these young students gaining from their variant of FYC, a course which Reiff and Bawarshi call the “transition point for students entering the university”? (331). How are they simultaneously being prepared for the writing life they will have in college and the exigencies of high school and AP assessments? Are these students able to utilize their high school-developed writing skills and knowledge effectively in their college assignments? Typically, students take ECC in their junior and senior years of high school; however, students as young as fourteen have been enrolled in dual-credit English courses (Hansen et al. “How Do”; Taczak and Thelin).

With this study, I draw attention to and work towards an understanding of the writing experiences these students have, both positive and negative, as students at Iowa State University (ISU). This study has implications for both secondary and post-secondary teachers (particularly those who inhabit both worlds) and administrators about what might help early college credit (ECC) students have successful college writing experiences. I choose to focus my study on knowledge transfer and what students report as facilitating or impeding transfer in college courses that require writing. The term “transfer” generally represents what happens cognitively as students develop declarative
or procedural knowledge well enough to internalize it, placing it into long-term memory schemas which can be used reflexively or called upon deliberately in succeeding situations where it might be useful. For instance, transfer allows comma rules learned in one setting to be applied to another, or rhetorical choices for one type of audience to be adapted to another type of audience, or understanding of the similarities and differences between writing in different genres. It is through the process of transfer that students who learn to write in foundational courses can transform their practices to meet the writing requirements of upper division courses, and after that, the workplace.

While different options to take ECC course exist, I will here focus on high school students who receive college credit for dual credit and/or AP test scores. My research questions are

- What writing skills, knowledge, and attitudes developed in AP and dual credit enrollment classes do students report as facilitating transfer to more advanced writing assignments in the university?

- What writing skills, knowledge, and attitudes developed in AP and dual credit enrollment classes do students report as impeding transfer to more advanced writing assignments in the university?

- What critical incidents in an advanced university writing experience require students to call upon prior knowledge and skills?

To contextualize my project, I will first discuss dual credit and AP courses, then the findings of an ISU task force about ECC students. After that I will briefly define knowledge transfer and discuss some potential concerns about ECC students and their abilities and opportunities to transfer. (Transfer is described in more detail in Chapter Two.) Lastly, I will describe my study site and expound on my research questions.
Dual credit and Advanced Placement

The term dual credit in this study refers to credit awarded high school students for both high school and college through the vehicle of a college-level class students take while also attending high school. These courses offer college-level curriculum and college-level credit for high-achieving high school students, sometimes on high school campuses, sometimes at local community colleges, sometimes online, depending on the qualifications of the high school teachers and the options students’ high schools offer. Dual credit teachers must have graduate training in English, but requirements vary. Although many schools require such teachers to have at least a master’s degree, some schools allow eighteen credit hours of graduate training, and some even allow teachers who are still in the process of receiving that training. Requirements and supervision vary according to state and sometimes institution (“Determining Qualified Faculty Through HLC’s Criteria for Accreditation and Assumed Practices”). Oversight of these programs varies from state to state. Age and academic requirements for participating students in these courses also vary.

Dual credit teachers on high school campuses find themselves inhabiting an interesting space between two worlds. One dual credit teacher talks about his creative navigation of this space in this way:

I see dual credit as more like college with training wheels, I guess. I get a chance to tell my students stories about my own college experience, and often kid them that if I want to truly prepare them I must be meaner than the meanest professor I ever had, who just so happened to use his own four-point grading scale, in which 97-100 was an A, and so on. The truth is that I use two separate
weighted scales for my dual credit students: one is a total point system, which ends up as their high school grade, and one is based ninety percent upon their formal compositions, which becomes their college grade. Because I see my students much more often than a university professor would, and therefore we complete more formative assessments, I have to get creative in how I reflect summative college level assessment, and having two grading scales really helps. (Skarl 31-32).

Skarl voices the reality that, in many ways, dual credit cannot be seen as a straightforward substitute for FYC on a college campus as part of a regular college schedule.

The National Alliance of Concurrent Enrollment Partnerships (NACEP), created in 1999, seeks to standardize the alignment between high school and college offerings of similar courses. However, membership in the alliance is voluntary, which makes standardization tricky; only eighty-nine programs nationwide out of a multitude of schools offering dual credit currently meet their standards for accreditation. The CWPA and NCTE have issued policy statements regarding dual credit offerings, but individual school offerings are far from standardized (Hansen et al. “How Do” 59). “Indeed, studies on the academic performance of high school students in dual-enrollment programs have begun to raise alarm, both as to students’ readiness to benefit in the college classroom and to the lack of consistent oversight given to the curriculum to which these students are exposed” (Tinberg and Nadeau 706). Additionally, some Writing Program Administrators (WPAs) express alarm that their college administrators decided to grant transfer credit for dual credit courses without conferring with them about whether
students from such classes are prepared for the rigor they will face in more advanced courses at college (Hansen, et al. “How Do” 57).

Besides dual credit, another option for ECC is Advanced Placement classes. Initially implemented to offer additional challenge for high school students, AP classes culminate in standardized tests traditionally recognized by institutions of higher learning as proof that high-scoring students understand the material and possess the skills to pass the college courses they were created to replicate. The College Board, which oversees the AP program, recommends that a student who achieves a score of three out of five possible on the AP exam is considered qualified to pass one or more first-year writing courses; a four means well-qualified, and a score of five is extremely well-qualified (“About AP Scores”). Complicating this picture is the fact that AP English consists of two different courses: English Literature and Composition, and English Language and Composition. For many postsecondary institutions, high scores for either course yield the same “credit” exempting students from FYC even though the curricula differ. According to their two-page course overview, AP English Literature and Composition courses focus heavily on reading and analyzing literature and on literary terminology (“AP English Literature and Composition”). AP English Language and Composition courses focus less on reading literary works and more on reading and writing a variety of prose genres including research and argument (“AP English Literature and Composition Course Description”). The content of this Language and Composition class is more in line with CWPA and NCTE outcomes recommended for FYC than the heavy focus on literary interpretation and analysis of AP English Literature and Composition. Outcomes for both courses do include development of some similar writing process skills, such as “writing
that proceeds through several stages or drafts, with revision aided by teacher and peers” (accessed through “AP English Literature and Composition Course Home Page” and “AP English Literature and Composition Course Home Page”) which are practices emphasized in FYC courses.

AP English Literature and Composition courses have, since their inception in the 1950s, focused on literary analysis (Puhr 71). Partially in response to the fact that college composition courses were largely moving away from a literary focus, the AP Language and Composition course was developed in 1980 as an alternative to AP Literature and Composition. But for at least the first years, the test included a literary analysis question. Even when the AP Language and Composition test included nonfiction text passages for analysis, “an exam ostensibly about rhetoric abridged what true rhetorical analysis entails, namely consideration of all five canons of rhetoric,” asking students to expound only upon the style of the passage (Puhr 71). More recently (beginning in 2002), in response to meetings between college composition directors and representatives from the AP English Test Development Committee (Puhr 73), the AP Language and Composition curriculum developed a clearer focus on rhetorical analysis (more than just style), synthesis, and argument; it also includes a visual text as a source that can be used in the synthesis question on the test, recognizing the importance of visual texts in contemporary culture (Puhr 74). The College Board has become much more clear about aligning the AP Language and Composition curriculum with WPA Outcomes for FYC; it also offers events and resources to train AP teachers in these emphases. Thus, the program has evolved, but even so, the question remains about how many AP English Language and Composition teachers have fully embraced these changes.
Additionally, Kristine Hansen et al. argue that, with the increase in enrollment in AP classes, at least partially a result of more students of lower ability enrolling, the grading standards for assessing the tests have softened (“Are” 463). As a result, some four-year institutions unhappy with the performance of former AP students are responding by not offering exemption for scores of three, in spite of the College Board recommendations (Hansen, et al. “Are” 463). Another complication is that, like dual credit courses, AP course curricula are not standardized. Although the College Board publishes basic course content requirements established by the collaborative efforts of college and secondary school faculty, their website asserts that “each individual school must develop its own curriculum for courses labeled ‘AP.’” They also recognize that the college first year writing curricula AP courses replace differ (“AP English Literature and Composition Course Home Page”).

Theoretically, if dual credit and AP courses take the place of FYC, it logically follows that students who take ECC should be as well prepared for college writing as are the students who take FYC as matriculated students. Consistent to all AP programs, however, is the need to prepare students to take the timed multiple-choice and impromptu essay test which determines college credit. Instruction for and practice in test-taking does not accurately match what happens in FYC. It may be asked whether high school students spend as much time on valuable writing process tasks like revision and peer review as they do practicing writing to test prompts within a specified length of time (Hansen et al. 465; Yancey, Robertson, and Taczak 109).
These issues become more important as we consider how many students are using ECC to replace FYC. To situate the above-described situation at ISU, a growing percentage of incoming students do come in with credits earned in high school. Students with ECC rose from 34% of entering first-year students in Fall 2000, with a median of six credits, to 62% in Fall 2010, with a median of 13 credits (Zunkel et al. 2). Because of the rising trend at ISU, a task force was commissioned “to research the student and institutional impacts associated with a growing number of ‘direct from high school students’ entering Iowa State University with an increasing number of college credits earned while in high school” (Zunkel et al. 1). The report revealed that English 150, the first of ISUs foundational communication courses, is the most common class with which students enter ISU with early credit and that 28% of new students entering ISU in the Fall of 2010 were exempted from taking English 150 (Zunkel et al. 8).

According to the results of a survey administered by the task force, students ranked their top three reasons, in this order, for taking ECC to be: 1) to get a head start in college, 2) to save money, and 3) to experience a challenge (Zunkel et al. 23). Students for the most part were glad they had taken ECC and “many of the responses recommended [that incoming] students complete general education classes prior to entering Iowa State, often using language about ‘getting general education done or out of the way’” (Zunkel et al. 23). Some, however, did not feel as though their ECC was sufficient for what they faced at the university. “Students identified ‘course topic gaps’ between what they learned in their ECC courses and where the sequential Iowa State course began as being an issue that the institution could address to improve their
academic experience” (Zunkel et al. 2). The students suggested that it would be helpful to have “additional help when stepping into the advanced class to refresh their knowledge of material learned in ECC” as well as readiness assessment and special advising (Zunkel et al 24). The task force also found that, in some cases, students bypass a course because it is a subject they do not like or are not very good at. Interestingly, the task force observed that

A partial explanation of the gap that students reported between where an ECC courses ended and the Iowa State sequel begins may be a gap in student development. Undeveloped study skills, less practice with being an independent learner, the pace of the course, and balancing a full load of college courses instead of just one or two are transition issues faced by most students entering the University. (Zunkel et al. 33)

The qualitative findings of the ISU task force offer insight into student attitudes and goals, which reflect a variety of outside influences. The choice of students to participate in advanced high school classes is often encouraged by school practices. For example, in high schools where large numbers of AP classes exist and large numbers of students enroll in them, grades for advanced courses are often weighted, thus supposedly not affecting students’ overall GPAs. In these schools many more students, more than the top performing students, enroll in AP classes and take AP tests. Schools earn a position on Newsweek’s “top high schools in America” for, among other criteria, college readiness as measured by the numbers of students who take ECC ("Methodology of Newsweek's High School Rankings 2015").
The task force expressed other types of concerns about freshmen who find themselves in sophomore classes their first year. They use the term “freshmores,” a term coined by Roger Bertelsen—one of task force member Jane Jacobson’s staff members—to represent these students. Freshmores have, in some cases, substantial college credit but no major field of study. Some feel inadequately prepared for the courses for which they are qualified to register. They may be used to more time studying concepts: one year in high school can compare to one semester in college. They cannot participate in learning communities designed to help freshmen transition into college life and responsibilities because they have bypassed the classes around which those communities are formed (Zunkel et al.). They have been in college classes but not in college settings (Yancey, Robertson, and Taczak 20).

ISU advisers are using information from the task force report to discuss ways to educate prospective students and their families about what freshmore life will be like; the task force recommends that advisers offer this education earlier in the planning process, maybe before students even enroll in AP or dual credit classes (Zunkel et al.). Another recommendation of the task force is that awareness be raised about the issues and impacts of ECC across not only the ISU campus but “also, since there is limited research on this issue that is affecting most colleges across the country, the findings of the task force provide an opportunity for Iowa State to serve as a national leader in research on the ECC issue” (35). However, even if advisers can help high school students and their parents better understand the advantages and disadvantages of taking AP and dual credit classes, and even if universities can tighten their requirements for bypassing FYC, these reactions to a growing trend will not stop the trend nor fully address the needs of freshmores sitting
in upper division classes where they need to access and adapt prior writing skills and knowledge.

**Transfer of knowledge in writing studies**

Transfer is the premise behind FYC: foundational writing courses should prepare students in multiple ways for the writing situations they will face in more advanced coursework. Administrators and educators place so much faith in this premise that FYC is one of the only universally required courses for four-year degrees. But as scholars first in education and then in composition studies have discovered, defining, understanding, and measuring transfer is difficult. A body of literature exists which examines and explores knowledge transfer in education, beginning in 1901 with the work of Edward Thorndike and Robert S. Woodworth. Transfer was studied in specific, carefully measured lab simulations for various disciplines. The writings of D.N. Perkins and Gavriel Salomon in 1988 and 1992 represent a significant moment in transfer scholarship where researchers saw the value of departing from carefully constructed laboratory settings and recognized the importance of context to individual learning processes. This has bearing on my project insofar as transfer is a cognitive activity heavily affected by social and attitudinal influences. It does not happen in a vacuum; researchers must make every effort to recognize what influences enable and constrain transfer.

Perkins and Salomon created some useful conceptions of transfer; these are often used in the literature about writing transfer. At the risk of oversimplification, I offer some basic definitions of their terms here. “Positive” transfer represents that a learner calls upon prior knowledge to perform successfully in different contexts. “Negative” transfer
represents how prior learning inhibits the ability to adapt learning to a new context or when a student cannot access prior learning that would be useful in adapting learning to a new context.

Perkins and Salomon describe “near” and “far” transfer, which represent how closely related the learning situation is to successive situations where the learning will need to be used. They describe “low road” transfer, which is where a practiced learner exhibits a reflexive response to a new learning situation, and “high road” transfer, where a learner recognizes a new learning situation by making connections between situations that are dissimilar at least on the surface. Low road transfer is often triggered by a similarity in the new context; high road transfer requires that learners consciously think abstractly and is strongly facilitated by metacognitive practices (“Transfer”). The following table shows the types of positive transfer Perkins and Salomon define and relates them to writing.
### Table 1. Basic terminology for types of positive transfer

<table>
<thead>
<tr>
<th>Type of transfer</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Near transfer</strong></td>
<td>New situation is very similar to a familiar situation—a replication of prior experience</td>
<td>General essay format; i.e., need for introductory and concluding thoughts in most writing, or common locations for a thesis or guiding purpose statement.</td>
</tr>
<tr>
<td>(deals with distance)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Far transfer</strong></td>
<td>New situation requires mindful abstraction in order to see similarities with familiar situation</td>
<td>Recognizing similarities between dissimilar genres or combining generic practices when the situation warrants</td>
</tr>
<tr>
<td>(deals with distance)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Low-road transfer</strong></td>
<td>Practice can create reflexive responses, sometimes without conceptual understanding or reflection.</td>
<td>Comma placement, or using terminology from past learning situations</td>
</tr>
<tr>
<td>(deals with nature of the task)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>High-road transfer</strong></td>
<td>New situation will be recognized because of mindful practices—requires cognitive and metacognitive effort</td>
<td>Recognizing the need for addressing any audience through appropriate persuasive moves for that audience.</td>
</tr>
</tbody>
</table>

*Far transfer and high-road transfer often overlap in the literature on writing transfer.*

A body of literature also exists which examines and explores knowledge transfer in the context of writing classes, beginning almost thirty years ago with scholars such as Anne J. Herrington and Nathaniel Teich. Little evidence exists that writing practices easily transfer from one writing context to another (Carter; Downs and Wardle; Perkins and Salomon; Rounsavile, Goldberg, and Bawarshi). And even though the premise is that students will transfer writing skills and knowledge from FYC, students themselves do not always recognize that what they do in a composition class has any benefit to them in future situations (Bergmann and Zepernik; Wardle). If they do not see relevance in assigned writing tasks, they will not reflect about them in any mindful way that will enable them to transfer. Novice students tend to look at writing experiences as discrete events.
Pedagogy that encourages far transfer or high road transfer includes emphasis on metacognitive activities. Metacognition can help students make sense of and learn from their experiences, discover how they best learn, and develop mindfulness about unexamined practices, resulting in better understanding applied to future efforts (Rickards, et al.; Yancey). Mindfulness, as Angela Rounsaville notes, can come from “teaching declarative writing-related concepts such as discourse community and rhetorical situation.” It can come from reflective writing and discussions, activities, and portfolios. Perkins and Salomon indicate that when students encounter situations that conflict with their beliefs, and cause them to look for flaws, they are more likely to engage in mindful abstraction in the form of critical thinking rather than passive acceptance (“Knowledge to Go” 254). Donald Schoen, an early promoter of the process of reflection, cautions that unexamined practices and their patterns of error can become reified (229). He labels this “overlearning” (61); put a different way, it is negative transfer.

I will explore transfer in further detail in Chapter Two. What is important to establish here is that transfer is a complex process with many facets and influences to consider and practices which can enable or potentially constrain it. A factor, for instance, with particular importance to my study is that sometimes students who excel as writers in high school do not have the habits or attitudes of the novice that Sommers and Saltz describe in “The Novice as Expert: Writing the Freshman Year”: habits and attitudes that enable transfer of knowledge to occur (Yancey, Robertson and Taczak). Individuals’ attitudes and dispositions exert significant influence on their ability to transfer, but where those attitudes and dispositions originate merits attention as well. The “fields” or
communities in which individuals reside also exert significant influence on what and how they transfer (Driscoll and Wells; Slomp; Wardle “Creative”).

**Concerns about how well ECC classes prepare students**

Among the multiple fields which influence students’ abilities to transfer are the various “institutions” of ECC. This study specifically examines transfer in students who participated in AP or dual credit classes in lieu of the first of the foundational writing courses at ISU, English 150. Institutional experiences can color writing perceptions and may influence writers with different emphases than English 150 experiences would. The AP environment especially, with its emphasis on a test, has the potential to impact students’ writing and their attitudes about writing.; for instance, students are writing for examiners who are looking for easy to identify features. Additionally, although the College Board has better aligned the AP Language and Composition curriculum with WPA Outcomes for FYC, its culminating test still cannot really measure some important FYC skills. Due to the nature of the test, the way it addresses research skills is to ask questions about citation practices rather than asking students to exercise actual research. Another significant type of learning that such tests cannot accurately measure is the exploratory value of writing. Rhetorical instruction, which, as Wardle says, if “fully understood and not just taught as style or delivery, is historically linked to critical exploration of ill-structured problems” (“Creative”). As well, AP English teachers who must prepare students for high-stakes tests find class time, of necessity, taken up by activities that may help students develop low-road and near transfer skills but not necessarily high road or far transfer mindsets. So, while transfer scholars believe that
explicit attention to writing processes, rhetorical considerations, and practice with reflection and other metacognitive activities is the best way to prepare students with tools for transfer, the goals of the AP English Literature and Composition curriculum and at least the teaching for the AP English Language and Composition test do not lend themselves to course content conducive for optimal transfer conditions.

Another potential influence on a student’s ability to transfer is the prevalence of metacognitive activities that encourage transfer from one field, high school; to another, college. The published AP English curricula describe only one potentially metacognitive activity for each course. The AP Language and Composition course content requirements include “writing informally (e.g., imitation exercises, journal keeping, collaborative writing), which helps students become aware of themselves as writers and the techniques employed by other writers” (“AP English Language and Composition Course Home Page”). Journal keeping with these objectives can be a transfer-enabling activity, but for the AP Literature and Composition course, a similarly worded informal writing requirement is to help “students better understand the texts they are reading” (“AP English Literature and Composition Course Home Page”). That may not fully address the needs of students who ought to be interrogating their writing processes and projecting their thoughts towards future writing tasks, as transfer-enabling reflections about writing would do. Reflection can be a valuable tool to help students process readings, but so much more needs to be processed for writing success in college. My study explores how well students who have taken courses with these curricula feel they have been able to use what they learned from high school English classes in college classes where the instructors assume they have the skills of English 150.
Unlike AP courses, which are supposed to be built around a consistent set of specific outcomes, dual credit course curricula vary according to the college curricular requirements for each dual credit partnership. As I described above, dual credit outcomes and oversight vary from institution to institution and from state to state. Thus, the emphasis on transfer-enabling activities varies as well. It varies even within institutions. As an example, in a small-scale study I conducted of Des Moines Area Community College (DMACC) English instructors in 2012, I found that neither of the core competencies for their two sequential FYC courses listed reflection as an outcome, and the FYC instructors I interviewed used reflection in different ways. One saw no use in reflection at all. In fact, most of the instructors needed the concept of transfer defined before we could talk about it (“Building Bridges”). Many of the central Iowa ECC students who attend ISU and have dual credit achieve that credit through DMACC because of its partnership with the high schools. So even these students coming from the same system have experienced inconsistent writing instruction because of differing attitudes and knowledge about transfer and transfer-rich practices among their teachers.

These considerations of AP and dual credit English curricula suggest that students entering college with ECC may or may not have had a lot of opportunity to develop rhetorical or metacognitive skills similar to what they would find in English 150. Some writing and transfer scholars such as David Russell and David W. Smit have questioned the value of FYC and “general writing skills instruction” as being too general to be useful for transfer to the disciplines anyway. However, others say that these debates and thoughts about the purposes of FYC “have allowed for productively reshaping and rethinking the purposes and possibilities of teaching writing . . . WPAs are more and
more often able to describe their programs as responsive to research, theory, and local needs” (Rounsaville, Goldberg, and Bawarshi 97). This study adds to that research. The task force report from the ISU study listed English 150 as the top most popular ECC at ISU course and states “The top 10 courses have remained fairly constant over the past decade; however, the number of students entering ISU with credit in these courses has continued to rise” (Zunkel et al. 8). It is ironic that the very class most commonly skipped with ECC is a class that can be and often is being designed to help incoming college students in their transition to university life and studies (Bazerman; Reiff and Bawarshi; Summers and Saltz) as well as develop cognitive and writing maturity. This study, focusing on students in a state of transition, proposes to shed light on the writing skills, knowledge, and attitudes students report and exhibit as facilitating or impeding transfer.

**Study site and research questions**

The first of the ISUComm Foundational Courses, English 150, is designed to address many of the transitional needs of freshmen as they explore their university and who they are as university students. ISU works to ease students’ transition into college with a place-based curriculum intended to help them explore their campus and feel at home there as they develop identities as college students (as described in Blakely and Pagnac). The outcomes of English 150 include to “begin preparing students for academic courses, as well as providing communication skills for future careers” (“Curriculum and Objectives”). A major focus of the ISUComm Foundational Courses is a multi-modal emphasis on not just written, but oral, visual, and electronic skills—which the ISUComm Foundations courses call “WOVE.” This focus recognizes the interwoven nature of these
modes and responds to NCTE position statements which assert that “composing occurs in different modalities and technologies” (“Professional Knowledge for the Teaching of Writing”), that “it is the interplay of meaning-making systems (alphabetical, visual, etc.) that teachers and students should strive to study and produce” (“Position Statement on Multimodal Literacies”), and that “as society and technology change, so does literacy. Because technology has increased the intensity and complexity of literate environments, the 21st century demands that a literate person possess a wide range of abilities and competencies, many literacies” (“The Definition of 21st Century Literacies”). Finally, reflective activities play an important role in every English 150 assignment. These are all practices and knowledge which students who take English 150 or its equivalent should have when they enter English 250, the second of ISUs required foundational communication courses. From there students progress to their disciplinary studies, which may require an advanced writing course.

The ISU English department website details the conditions under which students may be exempted from English 150. Students whose first language is English may omit English 150 for one of the following reasons:

- An ACT-E score of at least 24
- An ACT-E score of 23 plus a high school rank of at least 75%
- An SAT-EWR score of at least 600
- An SAT-EWR score of 590 plus a high school rank of at least 75%
- An SAT-CR score of at least 550
- An SAT-CR score of 540 plus a high school rank of at least 75%
- A score of at least 3 on the AP English Language and Composition exam
• A score of at least 4 on the AP English Literature and Composition exam

• English 150 and/or English 250 transfer credit from an accredited English-speaking U.S. post-secondary institution, as determined by the Registrar (“English Placement”)

Even with these reasons, students thus exempted from 150 must receive a “C” or better in 250 in order to receive the opt-out credit for 150. Fewer students test out of 250, due to strict test-out policies and standards.

This project focuses on participants who bypassed English 150 because of AP test scores and/or dual credit transfer grades. I describe my participants and my methods in Chapter Three. My questions explore participants’ perceptions of their experiences with writing both in high school and in their university experiences with particular emphasis on how early experiences influenced later ones. My first research question: “What writing skills, knowledge, and attitudes developed in AP and dual credit enrollment classes do students report as facilitating transfer to more advanced writing assignments in the university?” sheds light on instances of both low-road and high-road transfer.

Transfer literature frequently describes transfer in terms of both “skills” and “knowledge.” For writing projects, “skills” (or practices) may include surface level conventions or terminology, which can be learned through practicing low-road exercises, or larger rhetorical concepts such as audience awareness, which may require more long-term schema or the ability to repurpose existing knowledge. “Knowledge” could include understanding of concepts such as persuasive appeals or genre, which in the context of a college course in a new discipline could require either near or far transfer, depending on how closely related these concepts are to what students did in high school. Of course skills, knowledge, and the habits and attitudes that enable positive transfer are all built
incrementally throughout a lifetime of experiences and cannot necessarily be attributed to one or two high school classes. Still, those high school classes will impact students’ ability to perform well in college.

My second research question: “What writing skills, knowledge, and attitudes developed in AP and dual credit enrollment classes do students report as impeding transfer to more advanced writing assignments in the university?” is designed to explore situations of negative transfer where students adhere too closely to specific methods or formulas taught in one setting but not universally useful in others, or where students cannot access skills and knowledge they have previously learned. Students who cannot adapt or repurpose genre knowledge, for instance, may approach new assignments with an inability to see similarities with what they have done in the past and may become paralyzed, unable to see what they consider to be the “right” way to proceed (Reiff and Bawarshi). If we can determine contextual influences that influence negative transfer, we can better understand how to help students overcome or avoid it.

My last research question: “What critical incidents in an advanced university writing experience require students to call upon prior knowledge and skills?” looks more closely at the moments that inspire transfer. Kathleen Blake Yancey, Liane Robertson, and Kara Taczak define “critical incidents” as setbacks or failures that result from challenges and can possibly “prompt learning in ways that perhaps no other mechanism can” (135). If we understand when transfer happens, we come closer to understanding how it happens and why. We can also examine how prior knowledge is transformed to fit the demands of the new situation. In focusing my research on these questions, I explore students’ perceptions of their learning, their changing abilities, and some of their
contextual influences such as individual dispositions and the dispositions of their institutional communities (fields, according to Wardle in “Creative Repurposing”).

In reaction to transfer’s complexity and the many contexts in which writing transfer should occur, conceptions and definitions continue to evolve. Scholars have studied transfer from college into workplace settings (Brent; Dyke Ford), transfer from FYC into disciplinary coursework (Beaufort; McCarthy; Nelms and Dively; Nowacek; Sommers and Saltz; Wardle), transfer from high school into FYC (Reiff and Bawarshi), and writing centers as fruitful ground for transfer (Devet; Nowacek). By virtue of their exemption from FYC or at least from the first semester of FYC, my study participants inhabit different territory than any of the above, and their experiences therefore merit a particular look.

Students permitted to take advanced English classes in high school generally have advanced writing skills, as determined by enrollment criteria for those classes. Those skills are then developed further through a course taught by teachers whose training and abilities merit the trust of their institutions. The assumption of the College Board, the institutions which accept AP test scores or dual credit, the high schools, the parents, the teachers, and the students is that the writing experiences students have in these courses is equivalent to what they would have in foundational courses in college and will prepare them as well for writing they need to do in college. That assumption, given the diversity of ECC programs, is a large one. If freshmen are not transferring what they have learned in the past, connecting and transforming it into the writing they need to do in college coursework, then their instruction may stay within the walls of the high schools
with little benefit for the student trying to negotiate sophomore and junior level courses as well as college life in general.

Works Cited


Downs, Douglas and Elizabeth Wardle. "Teaching about Writing, Righting Misconceptions: (Re)Envisioning 'First-Year Composition' as 'Introduction to Writing Studies.'" *College Composition and Communication*, vol. 58, no. 4, 2007, pp. 552-84.


Chapter One offered brief definitions of the concept of knowledge transfer and some of its major terms. However, the concept of transfer is enormously complex, as increasing amounts of writing scholarship show. To situate my study within current conversations about transfer, I consulted numerous scholars who have explored transfer theory from different angles. In a 2015 *Writing Center Journal* article, presented as a transfer “Primer” for writing center directors, Bonnie Devet details a list of the often overlapping categories of current writing transfer scholarship. These are areas in which research has been done or areas transfer scholars emphasize as important to consider when developing a curriculum that facilitates transfer. They include

- Content
- Prior knowledge
- Dispositions
- Reflection
- Context
- Genre

Devet’s categories constitute a useful framework for organizing the scholarship on transfer which has informed the present study. Although overlap exists among the categories, this chapter is divided into sections according to Devet’s categories. To this list I add threshold concepts, a more recent emphasis in the field of transfer studies.

It is important to note, however, the term “transfer” is problematized by writing scholars. Transfer is not a mechanistic process of taking information from one area and
using it in another. As I will show, many dynamic factors in individuals and the larger systems in which they reside influence transfer, and the phenomenon is not a linear process. Elizabeth Wardle names terms scholars have created to better represent transfer: “transforming, repurposing, generalizing, recontextualizing,” and her own, “creative repurposing for expansive learning” (“Creative Repurposing”). For this study I choose to use the word transfer because of its ubiquitous usage in the literature, but I recognize its limitations for completely describing the phenomenon I am examining.

Content

Devet’s first category relates to the fact that transfer studies and discussions about FYC content include the importance of choosing writing as a course theme, rather than subjects like literature or popular culture, as is the case in many FYC courses. Several works have been influential to this way of thinking. One is Anne Beaufort’s “Developmental Gains of a History Major: A Case for Building a Theory of Disciplinary Writing Expertise.” In this ethnographic study Beaufort presents a model of overlapping domains of writing expertise wherein she defines content knowledge to be as crucial for writing expertise as other domains such as genre, writing process, and rhetorical knowledge. Another highly influential work is the 2007 article by Douglas Downs and Elizabeth Wardle where they reenvision FYC as “Introduction to Writing Studies” and claim that writing cannot be taught well without explicit, deep, and continuing attention to the subject of writing itself (559-60). Their work, including two editions of their FYC textbook, Writing About Writing, adds to a growing collection of scholarship which advocates for teaching composition theory in not just graduate courses but also FYC writing classrooms. Advocates commonly refer to a writing-themed course as “Writing
about Writing” (WAW). Works by such scholars as Elizabeth Sargent and Kathleen Blake Yancey, Liane Robertson, and Kara Taczak also describe curricula focusing on writing as the subject of FYC.

Of Devet’s six areas listed above, “Content” has the least relevance for the present study. Students who take Advanced Placement (AP) classes have the prescribed curricula described in Chapter One. Students who take Dual Credit (DC) classes could potentially have a class themed around the subject of writing, but the WAW movement is not widespread in post-secondary institutions.

**Prior knowledge**

Devet’s second category recognizes the importance of the concept of prior knowledge to the phenomenon of transfer; prior knowledge is what gets “transformed” or “creatively repurposed” (Wardle “Creative Repurposing”). Negative transfer is the result when students cannot access their prior knowledge or use it effectively in new situations. Prior writing knowledge can include both school and personal experiences with writing. “Past experiences serve as platforms and interpretive frames for solving the problem of newly familiar genres” (Rounsaville). What is difficult to discern is how students access prior knowledge and what roadblocks might stand in their way as they try to recognize and reconcile what they already know with the requirements of new writing tasks. Prior knowledge is often tacit and unexamined Several researchers have worked to understand what students draw on and what teachers can do to facilitate their ability to understand and use prior writing skills and rhetorical knowledge. They have found that transfer requires both forward- and backward-reaching strategies (Nelms and Dively). Gerald Nelms and Rhonda Leathers Dively suggest that such activities as peer response
encourage students to reach backwards to what they know about writing (225). Reflection is an example of both a forward- and backward-reaching strategy. Roadblocks to transfer include a compartmentalization of knowledge. (Nelms and Dively), and metacognitive activities encourage students to break out of those compartments.

Yancey et al. propose that prior knowledge strongly influences students’ writing processes and manifests in their attitudes, strategies, and “the knowledge about writing contextualizing their practices and, consequently, their development as writers” (103). Complicating research about prior knowledge is the fact that individual writers use it in different ways (Yancey et al. 103). Furthermore, prior knowledge may not fit the new task, or it could even be at odds (perhaps ideologically) with the new task (105). In instances of negative transfer, students struggle adapting what they know; sometimes they do not even recognize the similarities between what they have done in the past and what their current assignments are asking from them.

Negative transfer

Guidelines for best practices in writing are published by governing bodies such as the Council of Writing Program Administrators (CWPA) to ensure that students do recognize similarities between assignments; however, some institutional practices conflict with their guidelines. The CWPA Outcomes Statement for First-Year Composition represents writing (and thus thinking and reading) processes and rhetorical knowledge as being important concerns around which we should build curricula rather than overemphasis on the excellence of final products. Students who drill and learn to create a well-constructed literary analysis for a test, particularly if they fall into formulaic
approaches, may not utilize or recognize the value of larger rhetorical concerns such as revision or feedback for less easily defined rhetorical challenges. Drills create reflexive performance, which can be useful for near transfer in order to help students succeed on tests or closely related assignments, but if students don’t develop practices and understanding to recognize the need to look at each rhetorical situation with audience, purpose, and context in mind, their writing abilities will be stuck in the test-taking mode. Programs which emphasize form or prepare students to prove their writing skills by their performance on a test may actually be preventing their abilities to transfer.

The literature describes how standardized national and state testing grew out of a need to prove to political stakeholders that students are writing well (Anson; Hansen, et al.). Chris M. Anson, in “Closed Systems and Standardized Writing Tests,” decries the influence testing has on high school writers. While Anson focuses on general high school standardized tests rather than AP tests, the points he makes are valid for both: “training young people to produce a type of discourse found nowhere in the natural world in order to display command of simplistic, routinized textual habits and structures is . . . a game, but with more important consequences” (114). He explains how writing takes place in an open system, influenced by context, and constantly evolving, but these test-based practices which place writing into easily replicable forms create a closed system, where little variation, flexibility, or metacognitive awareness exist.

When Michael Carter, drawing from work in cognitive psychology, discusses writing expertise, he highlights the tension between universal, global skills and context-dependent, local skills and recognizes the importance of both. The question is whether students are getting both in a test-intensive environment. Anson also maintains that
“working across contexts requires a combination of reflexive and mindful transfer, or *adaptive expertise* (118). Such a meta-knowledge creates an interpretive framework with which to approach new tasks. But far transfer requires “time for exploration and the investment of mental effort” (Perkins and Salomon), a luxury many high school curricula do not have. Students need to develop a writerly identity, one with more nuance than the test makers can grant for a test where readers must be able to determine in a very limited time whether all the elements of the “well-written” essay are there.

**Disposition**

To look only at course content and institutional emphases, however, is to ignore a very important consideration in transfer scholarship—the agent (Nowacek; Driscoll and Wells). Beyond the control of teachers, students’ individual dispositions and habits of mind affect transfer in significant ways (Wardle; Nelms and Dively; Reiff and Bawarshi); in fact, Linda S. Bergman and Janet Zepernick claim that students’ dispositions account for the complexity of transfer. Conditions necessary for successful transfer include psychological issues like student confidence and motivation (Anderson, et al.; McCarthy; Perkins and Salomon; Slomp). A growing number of scholars such as Dana Lynn Driscoll and Jennifer Wells are drawing attention to disposition as an important lens to use for additional insight in transfer studies and calling for further research to be done in this area. This study responds to that call. In their important work, “Beyond Knowledge and Skills: Writing Transfer and the Role of Student Dispositions,” Driscoll and Wells identify traits such as self-efficacy, attribution, self-regulation, and an appreciation for and willingness to learn as traits that determine how intellectual abilities are used and whether transfer can happen. They stress that one learner can exhibit a number of
different dispositions, that dispositions are dynamic, and that dispositions can be dependent on specific tasks.

**Attribution theory and mindset**

Attribution theory in particular can be a useful tool for understanding behavior influenced by disposition. It explains behavior by looking at thoughts people have about what causes events and how much control they have over those events. A large difference exists between learners who feel as though they can control events and learners who feel as though they have no control over events (Munton, Silvester and Stratton 18). An element of attribution theory is achievement motivation. Achievement motivation means that pride in achievements motivates engagement and also predicts future performance (Munton et al. 16). Students who believe in their potential for and ability to change are more likely to expend effort in changing or in working to solve problems; they attribute lack of success with lack of effort rather than with lack of control or ability (Munton, et al. 17).

Attribution theory is a major element in what Carol S. Dweck describes as “mindset.” In her work in psychology, she has found two different types of mindset that strongly influence an individual’s ability to push through challenges and take advantage of learning opportunities. What she calls a “growth mindset” is a mindset which attributes success or failure to individual effort. A person with a “growth mindset” enjoys challenges and recognizes growth in effort. What she calls “fixed mindset” represents the attitude that people are born with innate talents or intelligence quotients that do not change. Dwek relates examples of people with “fixed mindsets” who attribute failure to
achieve goals or tasks to other people or conditions. She says that people with “fixed mindsets” must guard their self-worth by blaming circumstances rather than their own lack of ability or effort.

Students entering college form a group of special interest with regard to attribution and disposition. Nancy Sommers and Laura Saltz, in “The Novice as Expert: Writing the Freshman Year,” reported the results of a longitudinal study of a group of students transitioning into college and the students’ perceptions of their progress as writers. They describe the position college freshmen find themselves in as a paradoxical combination of novice and expert: novice first-year students find themselves expected to be developing expertise in new subject matters and methods (132). Beaufort’s ethnographic study of Tim, a novice historian expected by his teacher to understand and communicate within the discourse community of historians, supports what they found in this paradoxical combination of positions (Beaufort 154).

The Harvard students Sommers and Saltz studied were high-achieving high school students who felt well-prepared for college, thus their work relates well to this study. Sommers and Saltz determined, however, that students who resist seeing themselves as novices may not utilize the strategies necessary to expertly navigate the college experience (127). Their findings accentuate the importance of looking at dispositions:

Even students who come to college as strong writers primed for success have difficulty when they refuse to be novices. These students often select courses to ‘get their requirements out of the way,’ blame their teachers for their low grades, and demonstrate an antagonistic attitude toward feedback. They feel as if there is
a ‘secret code’ to academic writing or that college itself is a kind of game whose rules—‘what the teacher wants’—are kept secret to them, only glimpsed through the cryptic comments they receive on their papers. (134)

It is not only necessary for students to recognize that they are in control of their own learning; it is also necessary for them to recognize that there are things they need to learn. This is what attribution scholars describe as the “expectancy-value theory of motivation” (Munton et al.; Driscoll and Wells). Of importance to this project is the fact that students who take advanced classes in high school are generally considered to be “gifted.” While the purpose of this study is not to delve into giftedness, attribution theory is relevant to this population, depending on how willing they are to give up what some may perceive as an elite status to acknowledge the need to admit they are beginners in this college journey.

Yancey, et al., referring to studies by Kristine Hansen et al. and Howard Tinberg and Jean-Paul Nadeau, note that “research suggests that students who identify as AP writers are less likely to see themselves as novice writers when they enter college” (106). When these students hit “critical incident” moments of setbacks and failures, they can either stall or recognize that these incidents are opportunities from which they, as novices, can learn. Yancey, et al. also point to the benchmarks that incoming students use as a point of departure—previous grades and tests (104). These somewhat artificial markers influence their dispositions (e.g. self-efficacy) and therefore their ability to succeed. Interestingly, students who consider themselves to be good writers sometimes overestimate their abilities (Wardle; Yancey et al.), so the empowerment of positive dispositions can be double-sided.
Fields have dispositions

Student dispositions are not the only dispositions under consideration with this study. James Porter says “We are constrained insofar as we must inevitably borrow the traces, codes, and signs which we inherit and which our discourse community imposes” (41). As described above, for instance, a testing environment can influence student writing. When scholarship about transfer began developing more robust constructs and having more wide-ranging conversations, a transfer-oriented edition of Composition Forum was published in Fall 2012. In her guest introduction to this edition, “Creative Repurposing for Expansive Learning: Considering ‘Problem-Exploring’ and ‘Answer-Getting’ Dispositions in Individuals and Fields,” Wardle draws on the scholarship of Pierre Bourdieu and asserts that dispositions are embodied in individuals but also in “fields,” or systems such as educational systems. She theorizes that educational systems can encourage transfer-enabling dispositions, which she describes as question-asking and problem-exploring, or they can encourage transfer-constraining dispositions, which she calls “answer-getting” and describes as “finding and answering and moving on.” Driscoll and Wells also stress the impact larger systems have on individual dispositions. They say that “dispositions are a critical part of a larger system that includes the person, the context, the process through which learning happens, and time.”

Fields and discourse communities are different conceptions. Definitions of discourse communities center on discourse (Swales), and have given scholars a way to discuss important aspects of writing transfer, as the Beaufort model represents. Wardle’s conception of fields, which represents a significant direction in transfer scholarship, encompasses more than discourse and better defines the concept of community that I
want to explore, as well as a more holistic understanding of the communicator. So, where possible in this study, I will call communities fields, as per her definition.

Wardle ("Repurposing") also discusses the effects of standardized testing on students and their high school education, and her research has bearing on AP students as well, showing that a testing emphasis encourages answer-getting dispositions in both individuals and in educational systems. She argues that students who spend years in a school system which relies heavily on standardized tests develop, unconsciously, the disposition encouraged by and reified by that system. Students may inhabit various fields such as educational, familial, or religious, but when they encounter a field with a different disposition, they may react in a number of ways as they recognize the disconnect between who they are, who the new field expects them to be, and how they are expected to write. Wardle says

I see students [entering a different system, therefore a different disposition] respond to such double binds in many ways: through confusion and failure, through attempts to follow directions without considering underlying principles and beliefs, through changing understanding, and sometimes through relief and excitement that another disposition is possible. ("Repurposing")

These students are transitioning between different ideologies of writing. For example, they are transitioning into the knowledge that the reader of their work is not an AP test assessor but someone more immediate. These transitions can create major boundaries for them.
Boundary crossing and guarding dispositions

Mary Jo Reiff and Anis Bawarshi developed the term “boundary guarder” to represent students who cling to specific prior knowledge so completely that they do not adapt it and cross the boundary between contexts. Reiff and Bawarshi developed the term “boundary crosser” to represent students who adapt prior knowledge with metacognitive strategies that enable them to use it successfully in new contexts. The students Reiff and Bawarshi studied in “Tracing Discursive Resources: How Students Use Prior Genre Knowledge to Negotiate New Writing Contexts in First-Year Composition” broke down genre knowledge into “smaller constellations of strategies they knew (326) and also recognized how new situations were not like prior situations (328). Boundary crossers question their knowledge, break it down, and repurpose it. Boundary crossers attribute success to their own efforts and abilities and therefore actively look for ways to cross. Boundary guarders may attribute success to luck or teacher whim. They may not have confidence and may not be comfortable with the uncertainty of a novice status. These designations are similar to Wardle’s “answer-getting” and “problem-exploring” designations (“Creative Repurposing”), as well as Dwek’s “fixed mindset” and “growth mindset,” and play a major role in this study as it seeks to see how individual dispositions affect students’ abilities to use prior knowledge and how the dispositions of the educational communities they inhabit affect their writing as well.

Reflection

Boundary crossers have the ability and the mindset to distance themselves from a situation in order to mindfully engage in transfer. But this is a distance not easily
achieved without explicit guidance. Devet’s fourth category of transfer scholarship is “Reflection,” which has been shown to have great potential as a metacognitive high road activity that assists students in using prior knowledge. It can help students make sense of and learn from their experiences, discover how they best learn, and develop mindfulness about unexamined practices, resulting in better understanding applied to future efforts (Rickards, Yancey). Rickards, et al. emphasize that reflective acts carry potential to increase student transfer of learning as well as develop their identities as learners (33).

Yancey’s seminal work, Reflection in the Writing Classroom, explains that consistent acts of reflecting over time and texts will help students see themselves as writers (50) and invent their “composing sel[ves]” (200).

Ultimately, according to Perkins and Salomon, the “art in teaching for transfer consists in helping students to catch the spirit and craft of transfer themselves” (“The Science”). Reporting on their study of the “Teaching for Transfer” (TFT, similar to WAW) curriculum they developed for FYC, Yancey et al. describe the benefits students receive from its priority on reflection. They describe one participant who began “to look beyond the writing strategies toward the theoretical concepts behind writing,” understanding the importance of both “theoretical knowledge and practice” (93). He recognized that the reflection he was required to do for the course had helped him connect “writing to thinking and thinking to knowledge” (93), and “he began to read across contexts,” thinking through the rhetorical terms and concepts around which the course was designed, and learning “to use them in new situations” (94).

While plenty of FYC instructors claim that courses with other themes can still provide focus on overarching rhetorical principles and practices, the WAW movement
has drawn attention to the importance of being explicit with students about the reasoning behind course outcomes and the importance of encouraging them to be more aware of their writing processes and purposes. Dual credit composition courses may focus on rhetorical principles like writing process and purposes, and thus, work well towards helping students transfer, but it can be argued that AP English Literature and Compositions classes do not and AP English Language and Composition classes may not have such rhetorical principles as primary objectives, as I describe in Chapter One.

Some would argue that writing a literary analysis is similar to the writing students would do in an FYC course, and indeed, some FYC courses center on literary themes. However, scholars who study transfer of writing note that unless explicit attention is given to larger rhetorical terms, purposes, and processes, these writing experiences will not internalize into meaningful mental schema and students will not be able to draw on them. According to Wardle,

Meta-awareness about writing, language, and rhetorical strategies in FYC may be the most important ability our courses can cultivate [as opposed to letting all the discourse knowledge come from the disciplines]. What FYC can do . . . is help students think about writing in the university, the varied conventions of different disciplines, and their own writing strategies in light of various assignments and expectations (“Understanding” 82).

This study examines positive and negative transfer incidents students experience and the critical incidents which influence them. Often, students do not remember metacognitive activities, so the influence of such activities in the data is not
completely visible. Therefore, Devet’s category of reflection, while important to understanding transfer scholarship, applies mostly to the implications of this study.

Context

Context, Devet’s fifth category of transfer scholarship, overlaps in many ways with the discussion of fields in the section about disposition. Chapter One describes the important contribution Perkins and Salomon made when they took the study of transfer out of carefully controlled environments and recognized the importance of context. More recent scholarship recognizes that context affects transfer in significant ways, as Wardle’s discussion of fields represents. “We need to explore what difference a student’s culture, major, and the intellectual tradition it represents makes in a student’s use of prior knowledge” (Yancey et al. 128). Wardle affirms that “to understand whether and why students generalize (transfer), we must look to contexts in which they become involved” (“Understanding” 69). Likewise, Bergmann and Zepernick report that “students’ conceptions of learning to write are composed of some combination of individual experience and peer culture” (126).

David H. Slomp addresses the complexity of contextual factors influencing writing in “Challenges in Assessing the Development of Writing Ability: Theories, Constructs and Methods,” In this article, he reacts to studies of transfer that do not take the dynamic nature of the developing individuals and what influences them into consideration. He proposes a bioecological model of transfer based on Anne Beaufort’s model of expertise and Urie Bronfenbrenner’s bioecological theory of human development. Beaufort’s visual model acknowledges the situated nature of writing expertise by displaying discourse community knowledge completely surrounding her four
overlapping knowledge domains of writing expertise: writing process knowledge, subject matter knowledge, rhetorical knowledge, and genre knowledge, thus illustrating that discourse communities shape the other realms of knowledge (141). Her study participant, Tim, experiences conflicting values between different discourse communities and therefore experiences difficulty with transfer.

Bronfenbrenner’s groundbreaking educational psychology theory, first introduced in the 1970s, acknowledges the interplay of human development within five subsystems ranging from immediate environmental social systems to the larger culture in which it resides. Slomp’s main goal in combining Bronfenbrenner and Beaufort’s two constructs is to better design writing assessment to better represent a student’s writing progress as well as product. However, in considering these discourse community and bioecological influences for assessment purposes, Slomp recognizes the importance of considering both personal and environmental factors in our quest to understand transfer (85).

When we discuss transfer in relation to fields, then, we must acknowledge that students’ many fields overlap, are constantly evolving, and have varying influences at various times on their writing. James Porter, in his influential work “Intertextuality and the Discourse Community” announces that the romantic ideal of the lone, creative writer has been superseded by the structuralists and poststructuralists who have shown that a text is not autonomous but is part of a complex set of relationships with other texts (35) and that writers’ work is “part of a larger community writing process” (42). This conception of context is fairly new. In 2016, Anson describes how scholarship on communities of practice is just beginning to explore how writers conceptualize transient, overlapping, unstable communities. And it is just starting
to account for the degree of unity and fragmentation within such communities and the extent to which their actors are situated within multiply configured spaces, each with its own shared assumptions and knowledge (“The Pop” 537).

**Maturation issues**

The most easily visible fields with which this study is concerned are high schools and colleges, but Early College Credit (ECC) courses inhabit an overlapping, nebulous space between the two. Seniors in high school are often the same age as college freshmen. But the fields in which they spend most of their time are vastly different. High school students, no matter how advanced they are academically, still for the most part live under prescriptive high school schedules and under their parents’ roofs. They also do not generally manage a full schedule of college-level courses. Howard Tinberg and Jean-Paul Nadeau draw attention to significant contextual and cultural differences between high schools and postsecondary institutions as well as developmental and experiential maturity in the students (713). Referring to the complicated phenomenon of transfer and the factors that influence it, Wardle describes how individuals’ “efforts and ideas—indeed, whether they are even willing to make an effort—are inextricably linked to the contexts in and across which they are working, learning, and acting.” (“Creative Repurposing”). This is an example of the tie between individual and field dispositions.

Fields, like public schools, that focus on easily assessed knowledge may not be very helpful in providing students opportunities to mature in their critical thinking, which is an important characteristic of cognitive maturation. The ability to write well is affected by cognitive development. William G. Perry, a psychologist whose work describes
worldviews through which students progress as they mature, describes “dualism” as the worldview with which most students begin higher education (Renn and Reason 137). His dualistic learner position corresponds with the position in which even many college FYC instructors find their students, one where the students do not yet appreciate the validity of multiple perspectives. The CWPA Outcomes Statement for First-Year Composition indicates that critical thinking, reading, and composing “are foundational for advanced academic writing” This type of thinking can be encouraged through activities such as discussions and research paper assignments in a FYC class, but even traditional freshmen occupy differing levels of cognitive maturity. Beaufort says “it is also not clear at what educational or age level certain writing skills might be likely to develop” (144); in fact, she says writing development happens as a product of a “complex interweaving of multiple factors that are simultaneously interacting in a writer’s growth in context-specific writing expertise” (173).

So it is little wonder that scholars such as Kara Taczak and William H. Thelin express alarm that “the cognitive capabilities of some dual enrollment students have not developed enough to handle effectively the challenges of the contemporary conception of composition” (7). In fact, Tinberg and Nadeau show that, unlike courses like AP courses which are at least purportedly populated by gifted students, dual credit classes are “touted as an opportunity to provide a link to college for students who haven’t been top performers academically” (708). These concerns point to the fact that ECC students may not necessarily have the cognitive maturity to “analyze, synthesize, interpret, and evaluate ideas, information, situations, and texts . . . and compose appropriately qualified and developed claims and generalizations” that the CWPA Outcomes specify are
important for introductory writing students to develop. In fact, according to Kristine Hansen, et al., “The kind of curriculum or instructor in any particular variant of first-year writing is likely less important than student maturation, cognitive development, and exposure to more writing instruction in improving students’ writing abilities” (“How Do” 56).

Additionally, it is an incomplete picture if we only concentrate on academic fields because students are heavily influenced by other fields to which they belong or gain entrance. Even for traditional students, the freshman year has been shown to be a vulnerable developmental time, dependent on, among other things, disposition. Lower classmen may “try on” a number of different fields (curricular or extra-curricular) as they look for subjects of interest to them and for environments in which they would like to “fit.” Evidence from higher education studies indicates that first-year students are prone to dropping out or doing poorly if they don’t feel they belong in this strange, new place. “Sense of belonging is context-dependent, takes on heightened significance in settings perceived as unfamiliar or foreign, and likely changes over time and place” (Strayhorn 55). This transitional time also includes exploration and examination of identity, and moving between fields also affects identity. “Because moving between [fields] requires not just adjustment to varying kinds of textual practices and processes but also to persons’ identities, ecological models of development also prominently forefront the construction of self” (Wardle and Roozen 110). In this transitional time dispositions can shift as well.

Charles Bazerman, in “Response: Curricular Responsibilities and Professional Definitions,” holds that FYC is an important transitional space for entering students. He
also expresses concern with maturational issues, but not necessarily for high school students. His piece is a response to arguments that FYC cannot adequately prepare students for disciplinary writing. He asserts that FYC should include situated assignments that allow students to make connections relevant to their lives and that this can give them motivation to expend the effort writing requires. He says FYC students need space where they can explore and reflect upon what it means to be a college student even as they negotiate disciplinary assignments in other classes. In fact, Bazerman contends that students may not do as well in upper division courses without FYCs transitional writing experience (254). Entering students inhabit a liminal space where they are aware of and challenged by multiple discourses even as they are experiencing life transitions (Bazerman, “Required Writing”).

This study focuses on students who have been participants in high school advanced English classes of several types; it also focuses on the academic fields into which they are gaining entrance (ISU in general, courses which require writing in particular). Maturity is not a pre-requisite for entrance into ECC courses. Another complication is the fact that for both high school and college courses, classroom field norms and expectations are dependent on individual teachers’ pedagogies as they apply standards and core competencies. “These spaces represent complex hybrids between instructor preferences, how the instructor conceptualizes the expectations of communities outside the classroom that students may be addressing, and what those communities actually value” (Anson, “The Pop” 542). As this section shows, then, a study of transfer must recognize the influence of multiple contextual factors while acknowledging that overlapping fields create layers of complexity that cannot be fully understood. This study
draws attention to the question about whether high school FYC classes perform the same functions for ECC students that they would have received through a standard college campus FYC class.

**Genre**

Devet’s sixth category is genre, which ties very closely to the discussion of negative transfer because of differences in instructor preferences and pedagogies. Instructors approach genre with varying attitudes about their flexibility, and some take a more metacognitive approach than others. Genres are important to explore in relation to prior experience and negative transfer, because the generic frames students carry with them may prevent them from seeing the differences in new generic exigencies. (Rounsaville; Reiff and Bawarshi; Nowacek). The field of composition has progressed in its understanding of genres as simple categories of text to an understanding of the influence of contexts, tools, and “implicitly—individual dispositions that mitigate that production” (Driscoll and Wells). Part of that progression began with Carolyn R. Miller’s influential work, “Genre as Social Action,” which problematizes the notion of genre being formal sets of conventions that highlight substance and form. “It does not lend itself to taxonomy, for genres change, evolve, and decay” (163). She defines genre as action which takes meaning from rhetorical situations and social contexts, explaining that the importance of genres is that they are “keys to understanding how to participate in the actions of a community” (165).

Scholars such as David Russell and David W. Smit have often been cited for their claims that the best way for students to learn disciplinary genres is for them to learn them within the context of the disciplines. They have argued that FYC cannot possibly prepare
students for communicating competently in their actual fields of study. In fact, Wardle writes about “mutt genres,” a term coined by Jamie Heiman to mean writing assignments designed to mimic genres from other communities (Wardle, “‘Mutt Genres’” 774). She claims that, within FYC, such assignments can be vague or contradictory because FYC is not an authentic disciplinary context. Some controversy exists over this line of thinking, however; other transfer scholars argue that if students can learn to write or recognize potential generic conventions they may need to produce in disciplinary classes or the workplace, they may have an easier time transferring. (Clark and Hernandez; Reiff and Bawarshi).

The extent to which prior knowledge facilitates adaptation to the new context is also contested (Anson, “The Pop” 539). But as Irene L. Clark and Andrea Hernandez explain, “genre awareness is not the same as the ‘explicit teaching’ of a genre” (66). Close ties to specific forms can reify the borders students need to cross and create instances of negative transfer. Too-tight ties can come from well-meaning teachers who promote inflexible approaches or from extra-curricular writing experiences which impede students’ abilities to recognize when adaptation is necessary. Genre awareness, on the other hand, is awareness of the larger rhetorical purpose of a genre and how it mediates between the author, the text, and the audience. Genre awareness holds promise for giving students tools for transfer if they have metacognitive opportunities to distance themselves from the specific situation at hand and if they have opportunities to participate in a range of writing experiences. As Anson explains, good writing instruction allows students “to experience a range of writing tasks, contexts, and purposes, and that it is better for them
to gain adaptive expertise than a narrowly defined set of skills relevant to a specific, artificial genre ("Closed Systems" 118).

Bazerman suggests that writers carry particular genres with them as frames to apply to new situations. ("The Life of Genre"). And since genres embody social and cultural interactions, those come along as well. Everyone has a repertoire colored with the values and norms of the fields from which they originate. For example, Rebecca S. Nowacek, in *Agents of Integration: Understanding Transfer as a Rhetorical Act*, describes a student who created a diary assignment in response to a history prompt and received a poor grade because her understanding of a diary was different than the diary assignment the history teacher designed for the class learning experience. This is an instance of negative transfer. Nowacek stresses that instructors need to act as “handlers” to help students, who are becoming agents of their own learning, transfer between genres, recognizing larger rhetorical concerns rather than focusing on specific formal conventions (125). In this way instructors can empower boundary crossers who engage in mindful abstraction.

Angela Rounsaville describes these transitional moments where students connect prior knowledge with current genred spaces in moments of “selection, translation, and negotiation” from among sometimes contradictory memories. Rounsaville, building on the work of Anne Freadman and Anis Bawarshi, takes a nuanced look at these intertextual transitional moments and theorizes that the speech act term “uptake” represents the space of knowledge construction between memories of past genres and their translation to genres meaningful in current situations. She advocates that this
moment of uptake is an important site for research. The present study sheds light on some of those moments.

Nowacek, in a related move, draws attention to the exigence required by genres; the empowerment she wishes for her agents includes learning that they can take license with conventional norms in a process Anson calls resistance. Resistance has much to do with notions of authority: writers can feel empowered to do something different than what they perceive an authority has dictated (“The Pop” 543), or they may feel as though they have a position of authority themselves” (544). This is difficult for both high school students and college underclassmen who are still in the process of figuring out how to negotiate adult authority—both their teachers’ and their own. This has huge implications for students who come from classes where they learn “correct” writing and may not feel empowered to stray from those teachings, either because of dispositional traits or maturity issues. But if they truly feel the freedom to construct their own rhetorical situation in regard to genred exigencies, they can more easily transfer.

“Tracing Discursive Resources: How Students Use Prior Genre Knowledge to Negotiate New Writing Contexts in First-Year Composition,” Reiff and Bawarshi’s 2011 study, contributes valuable insight about prior knowledge and its impact on students. One interesting finding is that students who can at least identify what genre a document is “not” are practicing a high road metacognitive strategy which can enable them to “abstract and repurpose strategies from prior genres into less familiar genres” and push through boundaries (328). Genre knowledge might include understanding such things as the difference between summary and analysis, when to use each, and whether to use both in a writing project.
These six categories Devet describes in her 2015 transfer “primer” for writing center directors: “Content,” “Prior Knowledge,” “Disposition,” “Reflection,” “Context,” and “Genres” offer a good overview of past and ongoing transfer scholarship. However, a new strand of transfer scholarship has recently emerged in the field of writing studies and offers a way to talk more cogently about writing concepts which should transfer. Thus, I add “Threshold Concepts,” a seventh category to those Devet details.

**Threshold concepts**

Students need to repurpose the genre knowledge they gain from FYC to disciplinary classes. The summary and research skills they learn in FYC should transfer to courses where instructors spend less time on writing and more time on subject matter content. And metacognitive activities can enable transfer. But there is more to learning the discipline of writing than being able to exhibit skills, and metacognitive thinking is a sophisticated cognitive maneuver that takes time and effort and practice. Assumptions abound that students can “pick up” writing skills and knowledge from one FYC class or from immersing themselves in the disciplines and have created some of the problematic attitudes held by lawmakers, parents, and students about what ECC courses can actually do.

In reaction to assumptions like these, transfer scholars have recently developed a focus on threshold concepts and call for more research to investigate them, which this study does. The notion of threshold concepts was introduced by Jan H. F. Meyer and Ray Land in 2003 to describe key concepts for a discipline. A threshold concept is a “conceptual ‘building block’ that progresses understanding of the subject” (Meyer and Land 4) and yet is initially “troublesome”; it is knowledge that takes effort for students to
gain and therefore merits specific attention from educators. Meyer and Land use David Perkins’ definition of troublesome knowledge to explain that this knowledge “appears counter-intuitive, alien . . . or incoherent” (7). Threshold concepts may “challenge existing beliefs, past practices or inert knowledge, or can be conceptually difficult” (Adler-Kassner et al. “Troublesome”). Mayer and Land propose that threshold concepts are also transformative, irreversible, and integrative (5). Another characteristic of threshold concepts is that when a student is in the process of learning one, the student may be in a state of liminality until she or he passes through the “portal.” Passage occurs in a recursive process of fits and starts and back and forth movement before the new realm of knowledge is achieved.

Linda Adler-Kassner et al., in the special edition of Composition Forum dedicated to transfer, suggest that, among other things, threshold concepts might be a productive lens from which to view “the purpose of first-year writing courses, especially the ways that they facilitate students’ abilities to transfer something—knowledge, strategies, habits of mind—to other courses and contexts beyond the academy.” Thus, threshold concepts are tied closely to the phenomenon of transfer. Passage through the portal allows students to think like members of a discipline, in this case writing, which means that they have achieved a certain level of expertise in understanding overarching concepts of writing.

A massive collaborative effort of writing scholars resulted in a collection of writing threshold concepts in a book called Naming What We Know, edited by Adler-Kassner and Wardle. This collection arose from the Elon University Research Seminar on Critical Transitions: Writing and the Question of Transfer, which happened over the course of three summers (2011-13) and was a “transfer camp,” as the participants called
it (Adler-Kassner and Wardle acknowledgements). The scholars identified thirty-seven key concepts for our field, recognizing that they will continue to evolve but that it is important to name them “for now” (xiii). The thirty-seven concepts fall under five main categories, which include 1. “Writing Is A Social and Rhetorical Activity,” which includes concepts such as “Writing Addresses, Invokes, and/or Creates Audiences”; 2. “Writing Speaks to Situations through Recognizable Forms,” which includes concepts such as “Genres Are Enacted by Writers and Readers”; 3. “Writing Enacts and Creates Identities and Ideologies,” which includes concepts such as “Disciplinary and Professional Identities Are Constructed through Writing”; 4. “All Writers Have More to Learn,” which includes concepts such as ”Failure can Be an Important Part of Writing Development”; and 5. Writing Is (Also Always) a Cognitive Activity,” which includes concepts such as “Habituated Practice Can Lead to Entrenchment.”

These concepts seem self-evident to teachers of writing, but that is because teachers have passed through the liminal process of learning them. Drawing attention to thirty-seven different key concepts allows educators to draw attention to tacit knowledge that experts possess but that novices need to recognize. Yancey, in the introduction to the book, says “We agree that all of us—including students—can use threshold concepts to inquire, analyze, interpret, and ultimately, make knowledge (xxviii). Recognizing the difficulty novices have in selecting, translating, and negotiating these sites is key to understanding how to help them. Further, Yancey argues that “a threshold concept can function as both propositional stataement and heuristic for inquiry, a heuristic we can . . . see with and through” (xxiii), which suggests that threshold concepts can be valuable for studies such as this.
The good news is that research is showing that far transfer is possible, in spite of the complexities I have here addressed. As this review indicates, the field of composition studies is working towards better theories of transfer within, between, and across the seven categories I have here described. After studying genre, Reiff and Bawarshi realized the limitations to a transfer study which focuses so completely on genre. Even an understanding of a genre does not translate into the ability to produce that genre, they found (331). Writing transfer involves more than understanding genre; it involves multiple contextual influences (334), both on an individual level and a field level. It also involves considerations of content, prior knowledge, and reflection. Disposition and threshold concepts, two of the most recent scholarly emphases and also the lenses for this study, shed important light on transfer and build on past scholarship. We are developing deeper awareness of these influences, of the need for explicit transfer-encouraging instruction, and of ways to encourage mindfulness about writing practices. This awareness can help us further understand how to foster transfer. Being open to all of these lines of research can yield important insight into how we can help “freshmores,” first-year college students in upper division courses, navigate the complicated situations of unfamiliar territory.

Works Cited


Downs, Douglas and Elizabeth Wardle. "Teaching about Writing, Righting Misconceptions: (Re)Envisioning 'First-Year Composition' as 'Introduction to Writing Studies.'" *College Composition and Communication*, vol. 58, no. 4, 2007, pp. 552-84.


Naming What We Know, Edited by Linda Adler-Kassner and Elizabeth Wardle, Utah State U P 2015.


—. "'Mutt Genres' and the Goal of FYC: Can We Help Students Write the Genres of the University?" College Composition and Communication, vol. 60, no. 4, 2009, pp. 765-89.


CHAPTER 3. METHODS

In this chapter I discuss the rationale for my choice of research methods and the theoretical frameworks that inform those methods. I provide context for my project with descriptions of the site, participants, and data collection. I also describe study limitations and potential biases as well as initial coding and analysis decisions.

Introduction

As described in Chapter Two, transfer scholars have suggested the need for research in both disposition and threshold concepts, and considering both theories in one study is a response to those who, recognizing the complex web of experiences and backgrounds that can influence transfer, call for research to include multiple theories of transfer (Driscoll and Wells 12). While transfer studies have often included interviews of instructors, Nowacek says, “Little classroom research has been done illuminating the existence of transfer” (10). Therefore, my study focuses on students’ perceptions of their writing experiences in a variety of classrooms. A qualitative study is the best way to investigate my research questions. I ground my research in concepts and methods other researchers have found useful in studying students’ experiences with transfer. Interviews have been a primary tool for scholars such as Anne Beaufort, Lucille Parkinson McCarthy, Rebecca Nowacek, Mary Jo Reiff and Anis Bawarshi, Nancy Sommers and Laura Saltz, and Elizabeth Wardle, and interviews are often best analyzed through grounded theory (Strauss and Corbin).
Grounded theory

To focus on how participants consciously conceptualize and articulate their experiences, and to attempt to trace unconscious influences on their writing, I used Strauss and Corbin’s grounded theory approach in an iterative process of examining the data. Grounded theory, a systematic comparison of concepts’ properties and dimensions, reconstructs the process by which the phenomenon under study happens, so we can see and understand it within its context. “This methodology enjoins taking with great seriousness the words and actions of people studied” (Srauss and Corbin 6). “Its strength is that conceptualizations are grounded in the empirical world” (Orona 177). Grounded theory looks to discover, not control, variables and allows participants to speak for themselves (Strauss and Corbin), in this study, about their experiences with writing education.

With this method, after multiple close readings of the data, I assigned labels to recurring codes, which I analyzed and compared recursively. After reviewing the literature, I merged two frameworks to illuminate the phenomena I found for disposition and threshold concepts and developed categories that fit within those frameworks, all in combination with an extensive memoing process. The data were reduced into concepts and relational statements that served to highlight my study of transfer in these students. No study has ever been done using these two frameworks concurrently, but together they better represent a more complete picture of transfer than one framework would represent. Genre studies such as those conducted by Reiff and Bawarshi offer great insight for understanding transfer, but when they concluded their study, Reiff and Bawarshi
highlighted the need to include examine other influences than just genre. This study does that, while also building on the work they did.

An aspect of grounded theory with relevance to my study is the importance of looking at process. In studying process, we can see how “[individuals or] groups align or misalign their actions/interactions” noting how they “respond to and/or shape the situations in which they find themselves” (Strauss and Corbin 166). When paying attention to process, we can see how the consequences of one set of actions/interactions affects subsequent ones. Consequences become part of the conditional context in which the next action/interaction sequence is located (169). So, for example, in the present study, situations in high school classrooms became stumbling blocks or stepping stones for students in their college writing experiences, particularly with regard to the writing processes they develop and their reasons for developing them.

This project focuses on more than what the participants consciously recall. As Chapter One states, what I explore is not just the activity of performing college work; I explore what dispositions and influences enable college writers to successfully address new challenges. Where grounded theory is most commonly considered a method to create new theory, this project is not necessarily designed to do that. Other methods of examining these contextual situations and influences might be through activity systems theory (Russell) or discourse community theory (Swales), but situational analysis, built on social world theory, aligns well with Wardle’s (“Creative Repurposing”) notion of fields and Reiff and Bawarshi’s notion of boundary crossers that I discuss in Chapter 2. Scholars such as Kathy Charmaz, with her “constructivist grounded theory” (130), and Adele E. Clarke, a student of Strauss, extend the work of Corbin and Strauss to include
more “theorizing” than theory-making. Indeed, Strauss and Corbin leave room for this in their grounded theory framework when they acknowledge that “building theory is not the only goal of doing research. High-level description and what we call conceptual ordering also are important to the generation of knowledge and can make a valuable contribution to a discipline” (Strauss and Corbin x, emphasis in original). Charmaz says “Theorizing means stopping, pondering, and rethinking anew. We stop the flow of studied experience and take it apart. To gain theoretical sensitivity, we look at studied life from multiple vantage points, make comparisons, follow leads, and build on ideas” (135).

Situational analysis

Situational analysis, as described by Clarke, uses many of the tools of grounded theory, such as the coding and category building processes, but it focuses on “situation” as the unit of analysis. Clarke asserts that grounded theory focuses on action; building on the work of Foucault, she posits that actions cannot and should not be seen as apart from the situations that surround them, and that theorizing is a better way to understand reality in a postmodern world than by constructing formal theories. She uses Strauss’s social worlds/arenas/negotiations framework to define her method (Clarke xxii); I find this conception useful for my study.

In situational analysis, “the conditions of the situation are in the situation” (Clarke 71, emphasis in original). Situational analysis includes explicit consideration of nonhuman elements of a situation, like tests, which are important actants in the lives of my participants. Situational analysis also includes explicit consideration of silent actors/actants, which is also important when asking, for instance, how much influence a
college teacher has on what high school students learn in advanced English classes. Conversely, high school teachers have no influence on what colleges do to help students bridge the gap between what students learn in high school and what they need to know and do in disciplinary writing. The influence of these actants is important to the implications of this study. The positions of these actors and actants emerge strongly through the use of an analytical tool Clarke developed. This tool is a series of situational maps which shows relationships between actors and actants within a situation and allows researchers to see overlapping elements and connections between what Clarke calls “social worlds” (and what this study calls fields).

Through these maps, situational analysis also allows researchers to pay special attention to dominant cultural discourses which constitute particular ways of being and which produce and transform individual identities in specific fields. But dominant discourses do not adequately describe all individuals within a field. People are situated and yet fluid (Clarke 22); boundaries can be constructed or deconstructed (113), and the maps are “messy.” My participants are at various points in the process of “becoming” college students. Some are boundary crossers into the field of the college writing environment because of concepts they learned in high school fields. Some are boundary crossers for some college classes but not all, based on disposition, prior experience, and resources.

Grounded theory is an appropriate response to the need for systematic study of qualitative data, but when the goal is “theorizing” rather than “theory-making,” situational analysis allows more understanding of the fluidity of these individuals. As Clarke asserts,
The porous nature of the boundaries of worlds and arenas and their plasticity are vital, as it is through these that changes enter the situation of inquiry. Social worlds/arenas analysis is a form of organizational analysis, dealing with how meaning making and commitments are organized. The boundaries of social worlds may crosscut or be more or less contiguous with those of formal organizations. (124-125)

Clarke’s maps “open up” and interrogate social world data in ways a researcher might not initially see. She developed three different types of maps that build on each other: situation maps, social worlds/arenas maps, and positional maps. These maps give structure to the act of theorizing in a process where construction of each map influences the next and in turn suggests reconsideration of prior maps. An important aspect of this theorizing is the position of the researcher. Clarke contends that a researcher has valuable knowledge about sites and situations apart from what the data show, knowledge that can provide insight into relationships during analysis. As the researcher constructs these maps, he or she provides space to give voice to actors/actants that might not emerge from the data (Clarke 75), and for “ideas, concepts, discourses, symbols, sites of debate, and cultural ‘stuff’” (Clarke 88). These maps allow us to see individuals as both individuals and as members of a community (110).

**Discourse-based interviews**

In-depth interviews, with open-ended questions, recommended as a method by such scholars as Irving Seidman, provide access to the meaning people make of their lives and events in their lives and provide an opportunity for them to reflect about those
meanings. He builds his work on that of Vygotsky, who maintains that putting experiences into words is the process of meaning-making (Seidman 22) and that the meaning people make of an experience affects how they build on that experience (Seidman 18). Similarly, Wardle argues that “if we do not know how students understand and respond to tasks and contexts, we have no basis for identifying and interpreting generalizing behaviors that might be considered forms of ‘transfer’” (“Understanding” 72). Perceptions play a key role in students’ ability to transfer and in the way they approach challenges. Understanding student perceptions is critical in order to understand transfer, no matter the pedagogical approaches with which they have been taught.

My decision to use discourse-based interviews was inspired by the work of scholars in the last decade (e.g. Paul Prior, Reiff and Bawarshi, and Kevin Roozen) who found it a useful method for studying transfer. Discourse-based interviews are influenced by classic studies such as that by Lee Odell and Dixie Goswami, who show that a discourse-based project is built on the assumption that process is important and that focusing on writing assignments can identify conceptual activities. Since memory is inexact, and since writers are not always aware of what influences them, in an interview an external stimulus such as a text can encourage better recall and more reflection. Anne J. Harrington, Nigel Harwood and Bojana Petric, and Odell and Goswami suggest that discourse-based interviews can result in insights into the writers’ rhetorical intentions and purposes, regardless of whether these intentions are visible on the surface of the text. Texts may include drafts, notes, annotations, peer responses, emails, etc., and may include such elements as teachers’ notes on the board (Prior 170-74).
Similarly, my study of texts is naturalistic; that is, I chose to use authentic texts students created in response to typical class assignments during the semester rather than looking at one consistent text across all participants. In fact, my participants’ experiences were so broad that no one common assignment exists that they could all talk about. I was also influenced by Harrington’s approach when she studied writing in chemical engineering courses. Recognizing the influence of community (or “field,” to use Wardle’s term I introduced in Chapter One) on writing, she says “As a community, a classroom is constituted by a group of people who share common understandings of, among other things, the social aims they are trying to accomplish . . . and ways of using language to accomplish their social aims” (333). Harrington points out that to truly understand this context, we need to both study writing features and “students’ and teachers’ perceptions of that writing and the issues, purposes, roles, and lines of reasoning associated with it” (334). My purpose is to see what influence high school advanced English community (field) practices have on student writing in the college field while acknowledging the impact of individual dispositions. To allow individuality and see what writing they considered important, I let students choose which assignments they brought to show me—along with any prompts, rubrics, or drafts that applied when possible. In asking them to retrace for me what they were attempting to achieve with these assignments, I minimized some of the risks inherent in interviews—poor recall or lack of awareness.

Discussions about specific texts have the potential to stimulate individuals’ reflections about how they approached assignment requirements, what processes they followed in creating assignments, and what “critical incidents” influenced their decisions.
Yancy et al. describe a critical incident or setback, which are terms commonly used in other fields, as “a situation where efforts either do not succeed at all or succeed only minimally” (120). These incidents can cause students to “rethink what they have learned, revise their model and/or conception of writing” and even undergo “conceptual breakthroughs” (Yancey et al. 120). Prior suggests that studying process holds an advantage over studying text alone since it allows us to tap into inner thoughts and composing phenomenology (167). So my goal, rather than asking about writing practices in general, was to prompt thinking about thoughts and processes students used in creating specific prior assignments and thereby ascertain some of their motivations and struggles.

“Prior resources” are the skills and knowledge developed in one context that should transfer to another. Transfer scholars such as Angela Rounsaville, Rachel Goldberg, and Bawarshi show that students are not aware of when and how they use prior resources unless they are prompted to do so when they approach writing assignments (98). I chose this method to prompt a similar metacognitive distance; I hoped that reflection would stimulate my participants to be more aware of specific textual decisions they made and where they had learned the writing concepts they used. And, indeed, as a result of this reflection, participants in the course of my interviews did recall memories or processes they had not remembered at the beginning of their interviews. Because of the text-based reflection and the unstructured nature of the interview, we were able to recursively visit some questions after they had new insights.

Examination of the texts without the authors’ guidance would certainly have yielded an incomplete picture. As Anne Beaufort says, “written products do not tell the whole story of what transpired for the writer. Robust research methods are required to
assessing writing development” (College Writing and Beyond 24). Through the combination of interview and examination of texts, my study presents insight into how the participants’ writing skills “have been extended, altered, or redefined” (Rounsaville, Goldberg, and Bawarshi 100) through their college-level writing experiences. The guided reflection of the open-ended interview questions and the physical actions of showing me their texts opened up a space for participants to “reconstruct” their high school writing experiences and infer how or if those experiences influenced their college performances.

In addition, as students discussed strategies and attitudes, I developed insight into their dispositions and mindsets, how they use resources such as tutoring or honors community peers, and to some extent, into their various bioecological environments such as classroom and home environments. Slomp’s bioecological model of transfer, which I presented in Chapter Two, shows how critical it is for transfer studies to take into account the complexity of contextual factors influencing writing and the dynamic nature of developing individuals. Students are influenced by their immediate environments as well as broader social systems that impact those environments. As Roozen states, “In addition to providing a means to generate detailed accounts of discursive processes and practices used for specific tasks, these retrospective tracings also have the potential to illuminate activities and practices drawn from a wide array of engagements from the near and distant past” (323). His poetic reference to “retrospective tracings” gives an indication of the potential of this method to make connections between elements that might not be made without the memory-prompting mechanism of a physical text.

In prompting the students into this “retrospective tracing,” I sought to find “intertext,” the concept Stephen P. Witte defines as the influence a broad variety of prior
texts have on writers that produced it. Certainly, student writing is influenced by teachers who ask them to approach writing assignments in particular ways and ask them to read exemplary texts and perhaps use them as models. Intertext is similar to James Porter’s notion of intertextuality, which describes the influence multiple voices in discourse communities have on individuals producing texts, much of which is unconscious to the writers (and perhaps the readers). In fact, one of the threshold concepts defined in Naming What We Know is “Texts Get Their Meaning from Other Texts” (Adler-Kassner and Wardle). I asked students what they read in their high school classes so I could hear what may have influenced them, perhaps typified genres. Other influences than the high school readings became apparent as well.

Both Prior and Roozen suggest that the more time passes between a writing event and an interview about that event, the less useful the data will be to understanding a specific writing experience. However, the meaning participants make from their prior experiences is knowledge they will use on an ongoing basis as they go forward with future writing opportunities, no matter how removed their experiences are or how exact their memory, and is therefore valuable to study. According to Roozen, “engaging students in these kinds of tracings might help teachers to reenvision how we think about the literate experiences that learners bring with them to their disciplinary activities” (348). He quotes Ann M. Blakeslee as arguing that educators “need to ‘acknowledge and work more with the residual practices that get carried over from students’ previous experiences and training, particularly those carried over from traditional schooling’” (Roozen 348). These are prior resources with the potential to enable or constrain transfer. Overall, then, the discourse-based interview is a good method for developing
understanding of transfer, a process scholars agree is difficult to understand, measure, and facilitate.

**Pilot study**

In the Spring of 2012, I conducted a small-scale study of transfer that laid the groundwork for and influenced my decision to conduct the present study. For this study, “Building Bridges: Locating Chasms Between Communities, Supporting Students Across Divides,” I used a grounded theory approach in order to focus on the perceptions of six English instructors within the Des Moines Area Community College (DMACC) system. My research questions were

- What writing skills/knowledge do instructors expect students to transfer between Composition I and Composition II in a two-year college?
- What are instructors explicitly doing to facilitate transfer?

I began with a short-answer questionnaire and quickly found that more information was necessary to completely understand the participants and their settings. I then conducted initial and follow-up open-ended interviews. I also did a textual analysis of standards around which DMACC requires instructors to structure their syllabi.

I found that many barriers to transfer exist, many of which instructors feel are beyond their control: students’ prior experiences, personalities, and challenging home environments as well as institutional curricular mandates. I also found extreme variance among instructors about whether they understood the term “transfer” and about whether they valued and used transfer-related strategies such as reflection assignments. In fact, for some instructors, the concept of formal reflection corresponded with an institution-wide assessment program where student portfolios, and thus their semester’s learning, was
based on portfolio reflections. The assessment carried negative connotations because of
the way it was conducted, and those connotations were associated with reflections. So
one instructor told me he sees no value in reflections and does not assign them.

This study connects with one population of students who bypass the first level of
composition at ISU: community college students, some of whom are dual credit students.
DMACC is the institution which has oversight over many of the high school dual credit
programs from which ISU students come. Also, rural high schools sometimes send their
advanced English students directly to community colleges for ECC. One of the
instructors I interviewed, who teaches online composition for DMACC, also teaches dual
credit courses at a high school. This study alerted me to

- the diverse combination of students who can be in one community college
classroom
- diverse institutional influences on instructors, some of which they do not
agree with
- the need to advocate for professional development opportunities for
instructors to learn about transfer: what it is, how to enable it, and what
value reflection can have.

After conducting this pilot study, one of my recommendations for further research was
that student perceptions about transfer-facilitating activities be studied, a gap the present
study begins to address.

**Study design**

This section will describe the present study design, including the research setting,
participants, and data collection.
Research setting

Participants in the present study are current (Spring 2016) ISU students who bypassed English 150 because of AP (Advanced Placement) or DC (Dual Credit) English courses in high school. Chapter One describes the criteria that allow students to bypass English 150 at ISU. Participants of this study qualify through at least one of the following criterion (as well as others):

- A score of at least 3 on the AP English Language and Composition exam
- A score of at least 4 on the AP English Literature and Composition exam
- English 150 and/or English 250 transfer credit from an accredited English-speaking U.S. post-secondary institution
- A score of 24 or higher on the ACT test (“English Placement”)

Even meeting these criteria, students thus exempted from English 150 must receive a “C” or better in English 250, the second of the required foundational writing courses, in order to receive the opt-out credit for 150.

Participants

I recruited a variety of students, after IRB approval, from a variety of backgrounds for the study. Diversity offers unique snapshots of individual experiences as well as insight into any commonalities among educational fields. Since transfer is not wholly dependent on setting, particularly with regard to disposition, I did not want to focus on any one instructor, institution or demographic profile. Recognizing that many students who are exempt from the English 150 requirement are in the ISU Honors Program, I recruited most of my participants through an email sent to the director of the program and to Honors students I had taught in English 250, since that course consists of
students who all bypassed English 150. (See Appendix A for my recruitment email.) The Honors Program director sent her own invitation for volunteers to all current students in the Honors Program, so it was received by students of different majors and college class status. I sent emails through other gatekeepers, like the director of the Writing and Media Center, many of whose student consultants have taken advanced English high school classes, and to the students from an English Education methods class. I received responses from several of my former students; two became participants in the study.

When I received forty-six responses to the initial emails, I created a survey (See Appendix B) to narrow the participant pool. Wondering about basic demographic information, I designed the survey with a few basic questions, asking, for instance, what sorts of advanced English classes these students took in high school and where that high school was located. I was hoping to include students from small communities who may not have had the same options for advanced classes as students in larger communities. I was also hoping to interview students who were first generation college students. After examining the survey data, I first emailed the students from small towns, students who said their parents had not attended college, and students who identified as minority ethnicities to invite them to participate in interviews. When I received very few responses, I gradually included more of the survey respondents, eventually emailing all the students who had agreed to take the survey. There were thirteen students who took the survey, chose to participate in discourse-based interviews, and had schedules that coincided with mine, so the participation rate of people who took the survey was twenty-eight percent. Three (twenty-three percent of interview participants) were from small communities, which I defined as being below five thousand people.
Table 2 shows a breakdown of the students who participated in the study. It shows their year in school (not counting hours earned in high school), major, where they attended high school, how big their home community is, how many credits they had when they entered ISU, what types of advanced English courses they took in high school, and what texts they brought to discuss during the interview. It also shows the scores they received on AP tests. Most of my interview participants took their advanced English courses at their high schools. All AP courses were in high schools. Of the seven who took DC, one was at a community college and one was online, but the online participant worked on her course in her high school library as a part of her regular high school schedule. Some placed out of English 150 due to transfer credit from DC; some placed out due to achieving appropriate scores on AP tests; some qualified with more than one criterion. One did not take an AP test but achieved a high enough score on her ACT that she was exempted from English 150.
Table 2. Select information about participants

| Pseudonym | Yr in school | Major | High School        | Town Size | Entering Credits | Advanced English course(s)                                                                 | Texts examined                                                                                   | Score on AP Test(s)                                                                 |
|-----------|--------------|-------|--------------------|-----------|------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 1. John Locke: name chosen by participant | 1           | Mechanical engineering | Paw Paw | Small 870 | 30 | DC at high school | History research paper, annotated bibliography, prewriting | No test, but received an A for DC |
| 3. Prescott: name chosen by participant | 3           | Music education | Thomas Jefferson | 16 | AP Lit, AP Lang | Music research paper prompt, rough drafts, one with teacher comments, final draft | Can’t remember test score |
| 4. Evie | 1           | Psychology | Southeast Polk | ~56 | AP Lit, AP Lang, DC at high school | 250 memoir, 2 Women’s studies papers, psychology lab research paper and prompt | AP Lit: 4 AP Lang: 4 (Took 3 Comp classes in hs) |
| 5. Melissa | 3           | Materials Engineering/German | Waukee | large 31 | 31 | AP Lit, AP Lang, DC at high school | Engl 250H summary, materials engineering proposal, feasibility report, group research report | AP Lit: 4 AP Lang: 5 |
| 6. Korrine | 2           | English education | Ankeny | large 54 | 54 | AP Lit, AP Lang, DC at high school | Intro to linguistics research paper, Linguistics 425 reflection paper | AP Lit: 4 AP Lang: 4 (Didn’t take 250) |
Table 2 continued

<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Field of Study</th>
<th>School</th>
<th>Participant Size</th>
<th>Class Year</th>
<th>English Classes</th>
<th>AP Lit</th>
<th>AP Lang</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>Mitchell: name chosen by participant</td>
<td>3</td>
<td>Industrial design</td>
<td>John F. Kennedy</td>
<td>14-16</td>
<td>AP Lit, AP Lang, Design paper, blog, group industrial design project paper, 250H persuasive paper and draft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Brandon</td>
<td>1</td>
<td>Biosystems engineering</td>
<td>Stillwater</td>
<td>Large</td>
<td>AP Lit, AP Lang, Engl 250H ethnography</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Martha Jones: name chosen by participant</td>
<td>1</td>
<td>Linguistics</td>
<td>Davenport North</td>
<td>Medium 18</td>
<td>AP Lit (but took both tests), Engl 250 comparison paper, prompts for Spanish paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Tasha</td>
<td>2</td>
<td>Animal Sc</td>
<td>Albernett</td>
<td>Small 673</td>
<td>DC on community college campus, Religion research paper, post-study abroad paper (meat production project)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Mary</td>
<td>3</td>
<td>Aerospace engineering</td>
<td>Mayer</td>
<td>Small 1,749</td>
<td>AP Lit, online DC, Engl 314 Instruction assignment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Kinsey</td>
<td>4</td>
<td>Dairy Sc</td>
<td>North Scott</td>
<td>Medium 6,162</td>
<td>AP Lit, AP Lang, DC at high school, Capstone Honors poster and research paper, textbook review for Dairy Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Karl</td>
<td>1</td>
<td>Electrical engineering and physics</td>
<td>Ames</td>
<td>Medium 37</td>
<td>AP Lit, Engl 250 Assignments 5,6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The survey offered the following choices for advanced English classes: “AP English Literature and,” “AP English Language and Composition,” “Dual Credit Composition taken on a high school campus,” “Online Dual Credit Composition,” “Dual Credit Composition taken on a community college campus,” and “International Baccalaureate.”
Each of my participants was a member of ISUs Honors Program. The Honors Program includes an introductory honors seminar course students take during their first year, the opportunity to live on the Honors floor in the dorms, and opportunities to engage in challenging experiences like internships or research positions with professors. Unless they earned transfer credit for English 250, they take an English 250 Honors course. After the first year at ISU, Honors students can elect to join the Honors program for their major; each major has different requirements and opportunities. Most programs expect some sort of capstone project during the student’s senior year.

Data collection

My choices regarding the structure and content of the interviews reflected what would best address my research questions and what was best for my participants. Some discourse based interviews, such as those Herrington conducted, use a common set of papers and examine specific moves or stylistic features in those papers. Because my research examines how student writing transfers from one context to another, and which field practices might be most conducive to or impacted by transfer, I sought a variety of texts these diverse participants produced for their college classes. The students brought college writing assignments based on a general prompt (See Appendix C) I sent them in an email. Since the request for texts was deliberately general, my participants brought in a wide variety of texts; some had rough drafts, prompts, and other artifacts, and some did not. They ranged from English 250 assignments to papers they wrote for courses in their disciplines—a range of fields.
The open-ended interviews ranged from forty-five to eighty-nine minutes. Seidman suggests doing a series of three interviews to establish a good relationship, learn sufficient background information, thoroughly explore participants’ experiences, and reflect upon concepts that emerge during the process (20). Because of my participants’ time constraints, I covered these areas in a single interview, recognizing that the data might not be as rich as that which would result from Seidman’s more protracted process. I created a common set of interview questions (See Appendix D) as a starting point, but because of the nature of the unstructured discourse-based interview, the writers drove the direction of the interview. I adapted my questions to the answers they offered and to the texts we examined together.

I began each interview by asking about participants’ high school experiences before talking about the texts they brought in. This allowed me to understand their background and them to place themselves in it before discussing their college experiences. I made it clear that many different classes include writing opportunities and instruction, since I knew that AP history classes also have a significant writing component, and because I know it is often difficult to remember where a particular writing concept is learned. As I got into the interviews, I felt that my original questions did not sufficiently explore the bioecological (Slomp) context. They did not address how students felt about their overall transition into ISU or address very well their use of support resources offered by ISU. So I added questions about students’ social and emotional transition into college in addition to their academic transition.

As the participants and I examined their documents, I followed Roozen’s method of having participants create retrospective accounts of their processes in producing
writing projects by asking participants to describe how they approached the assignments, what prewriting strategies they employed, if any, and where they had learned these approaches and strategies. I asked participants to describe what, if anything, they found to be challenging about the assignment. I looked at specific areas of the text that participants brought up, such as their responses to instructor feedback. I scanned the texts for rhetorical choices that stood out, such as vocabulary choices. I asked questions about writing concepts participants did not bring up, motivating them to think about when and how they learned certain practices, such as creating thesis statements. I asked how their texts and their language in those texts compared to texts they had produced in high school.

As a result of these reflective questions, we often circled back to the high school experience. My questions were designed to make it easier for students to think about how writing assignments they did in high school influenced the writing they did at the university so that I could determine whether they practiced the “deliberate, mindful abstraction of skill or knowledge from one context for application to another” (Perkins and Salomon 25). They were designed so that I could hear how students described using their discursive resources, and whether students indicated awareness of when and why they deployed their prior knowledge” (Rounsaville, Goldberg, and Bawarshi 105). Participants described their understanding of the writing they did in high school and their understanding of the writing they were doing in college. They described what elements of the writing process they consider important, what their high school teachers emphasized as important, what their college teachers emphasize as important, and how their priorities changed, matured, or stayed the same.
Initial coding and analysis decisions

During the interviews, I took extensive notes about what participants said; as soon as possible afterwards, I listened to each recording and added more detail to my notes. I sent post-interview emails with follow up questions to some participants. From my notes, I created some initial codes for recurring themes of importance related to my research questions. I reviewed the texts the students left with me as well, and compared them to what the students had said about them. The interviews were transcribed by a service, after which I uploaded the transcribed files to Atlas.ti, a qualitative data analysis software application. Atlas.ti was recommended to me as good software for qualitative analysis of large amounts of data. Researchers who use this software still develop their own codes and categories, but the software makes it easier to compare texts and keep track of connections. (See Figure 1 for a screenshot of a coded transcript in Atlas.ti)
Figure 1. Screenshot of a coded transcript

Note: Highlighted text is an instance of negative transfer. In the margin, red coding = negative transfer; blue = disposition; pink = threshold concept, purple = intersections. Vertical blue lines mark specific quotations selected for specific codes.
Using open coding to examine the data line by line, I created codes which display in Atlas.ti next to the portion of the text to which they apply. The codes I developed were a combination of themes I had picked out in listening to the recordings, such as transitional experiences students experienced in entering college, and “can do” attitudes as well as themes that related to my reading about transfer, disposition, and threshold concepts. Recursive reviewing of the literature allowed me to become better “sensitized” (Strauss and Corbin) to these concepts around which I could build codes and categories, and became integral to my analysis. Sensitivity to the issues under investigation is a key aspect of grounded theory--not just because of how the literature can stimulate thinking, but also in how researchers need to be sensitive to what is important in the data and its significance to the participants and the meaning they make from their experiences. (Strauss and Corbin 47). In my reading, I found researchers who called for more transfer work with dispositions (Driscoll and Wells) and for research into threshold concepts (Adler-Kastner, et al). I became particularly interested in how those themes emerged from my data.

Coding choices

I allowed multiple codes to apply to single utterances, recognizing the richness of human thought and the fact that many thoughts are a combination of impulses. The codes that emerged from my data related to my first two research questions (“What writing skills, knowledge, and attitudes developed in AP and dual credit enrollment classes do students report as facilitating transfer to more advanced writing assignments in the university?” and “What writing skills, knowledge, and attitudes developed in AP and dual
credit enrollment classes do students report as impeding transfer to more advanced
writing assignments in the university?”) include themes relating specifically to transfer,
which I categorized as “positive,” “negative,” and “making connections.” I later
combined “making connections” with “positive” since making connections is part of
positive transfer. The categories that related to my third research question (“What critical
incidents in an advanced university writing experience require students to call upon prior
knowledge and skills?”) included moments I identified as “struggle.” I divided some
instances of “struggle” more finely into “conciseness”, “critical incidents in high school,”
and “critical thinking.” During analysis, I realized that a number of experiences related to
research projects also fit within “struggle.” I also coded where I found intersections
between transfer, dispositions, threshold concepts, and moments of struggle within the
writing process, since these were the areas where I thought the connections would be
valuable for educators to understand.

Two frameworks became the basis for my analysis—one from disposition
research and one from threshold concept research. I noticed fourteen different
dispositions in the data. For categories related to disposition, I used a hybrid framework I
describe in Chapter Four. It is a combination of “habits of mind” as defined by the
“Framework for Success for Post-Secondary Writing Instruction” (“NCTE Framework”)
as well as dispositional attributes Driscoll and Wells name in their article “Beyond
Knowledge and Skills: Writing Transfer and the Role of Student Dispositions.” Driscoll
and Wells discuss that disposition includes the “Framework’s” “habits of mind.” To the
“Framework” dispositions and the dispositions Driscoll and Wells named, I added one of
my own, “Utilizing Resources,” because it represents a common dispositional trait that
emerged from the data and is important to students transitioning into a college field. As I explained in Chapter Two, I wanted to make sure I paid attention to bioecological contextual information relating to the students’ transitional experiences. For analysis I focused on the most prevalent dispositions intersecting with transfer and/or threshold concepts.

I noticed twenty-two different threshold concepts in the data, based on the work of the writing scholars who contributed to Adler-Kassner and Wardle’s comprehensive Naming What We Know—a “good enough for now” (xiii) list of key concepts developed by a team of writing scholars in a collaborative effort that grew out of the Elon conference on transfer (xv). I describe these concepts and their importance to transfer research in Chapter Two. To reduce the data, I looked specifically at the threshold concepts that were most common and those which intersected with transfer and/or disposition. Identifying both dispositions and threshold concepts in the data allowed a clearly defined way for me to articulate and conceptualize what I was seeing as students described their struggles and successes. See Appendix E for a full list of my initial codes, and see Chapter Four for operationalized definitions of codes, based on the literature and on the specific instances I identified in these data.

**Situation maps**

If we assume, as the literature says, that transfer is influenced by bioecological contextual factors, it offers analytical insight to visually “map” those potential factors as actors and actants in the situation. Clarke describes two ways of doing situational maps: one is what she terms a “Situational Map: Messy/Working Version,” with phrases
scattered over the page in no particular order (88). I chose to use her other method, the “Situational Map: Ordered/Working Version, “which looks like ordered lists with the following suggested categories:

- Individual human elements/actors
- Nonhuman elements actants
- Collective human elements/actors
- Implicated/silent actors/actants
- Discursive constructions of individual and/or collective human actors
- Discursive constructions of nonhuman actants
- Political/economic elements
- Sociocultural/symbolic elements
- Temporal elements
- Spatial elements
- Major issues/debates (usually contested)
- Related discourses (historical, narrative, and/or visual)
- Other key elements (90).

To understand close and far-reaching relationships and assumptions in my project, I wanted to explore, for both high school and college fields, the meanings of the categories she suggests, which include attention to individual and collective actors and actants as well as discursive constructions. I wanted to look at what elements from this project’s situations fit under these categories. Creating one situational analysis map was impossible because the situations (fields) I am considering are distinct: the college classes students take while they are still in high school and the post-secondary institution classes
they move into once they graduate. Furthermore, Early College Credit (ECC) students do not just go into one generic college course. They enter a variety of college courses, many in the disciplines, which would suggest that a map needs to be made for each separate discipline to fully understand transfer enabling and constraining factors. Each discipline is, in fact, a new field. These worlds, even though they all have student learning and support as their primary goals, cannot be collapsed into one, which is an argument David Russell and others have made about first year writing courses in general and their inability to address all disciplinary genres.

Putting that argument aside for the moment, the premise behind ECC is that the overlap between high school and college is enough that a writing course taken in high school can substitute for a beginning writing course taken in college. Indeed, in creating two situational analysis maps, I saw many overlapping elements. The reality the maps illuminate, however, suggests that it is wrong to consider such a straightforward substitution without understanding the many situational factors and discursive constructions which influence students’ experiences and all actors’ perceptions. The mapping of these fields implies boundaries, but we expect students to effectively cross those boundaries and must understand all aspects of the situation to assist their crossing.

See Figures 2, 3, and 4 for situation maps I created before analyzing my data as a method to make sure I noticed potential relationships and influences and recognized all actors and actants in the situations. With these maps, I demonstrate my careful consideration of situational complexities. Figure 2 (below) examines the situation of the setting, circumstances, and actors/actants for students who have graduated from high school and matriculated into college.
**Political/economic elements**
Pressure to get credits cheaply  
Commodification of college  
Transfer credits to students’ post-secondary institutions  
Curriculum and core competencies of colleges overseeing DC classes

**Spatial elements**
The university as a place that needs to be explored, and students who need to consider themselves as college students within the university and eventually within a discipline  
Students may have very different schedules than their friends  
Students have freedom during the day to leave campus

**Nonhuman actants**
Curriculum and core competencies of colleges overseeing DC classes  
Whether appropriate WAC/WID program is in place  
A wide variety of disciplinary goals, instructor pedagogies  
Writing and Media Center (WMC) and other Student Support Services  
Individual teacher pedagogies

**Collective human actors affected by or influencing ECC**
CWPA, NCTE, and other concerned professional bodies who publish position statements  
Honors program staff  
Honors housing students

**Individual human actors**
College instructors, WMC staff, administrators, Honors director  
College Counselors  
Parents  
Legislators  
Classmates not necessarily all the same age or advanced status  
Students

**Discursive construction of nonhuman actants**
ECC: “get it out of the way”

**Discursive construction of actors**
Students are not necessarily considered “gifted” any more  
Students come to college without the preparation they need  
Public administrators are driven by economics and by parent pressure  
Parents are driven by economics  
These students are capable of doing advanced work and of adapting to advanced situations

**Silent actors/actants**
AP tests  
High school instructors  
Socio-economic class

**Major issues**
Learning  
Consistency among programs accepted for college credit

*Figure 2. Situation map of setting and circumstances for students who have graduated from high school and matriculated into college*
Figure 3 (below) examines the situation of the setting, circumstances, and actors/actants for students who are still in high school but taking college-credit courses.

<table>
<thead>
<tr>
<th>Political/economic elements</th>
<th>Pressure to get credits cheaply</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Commodification of college</td>
</tr>
<tr>
<td></td>
<td>Transfer credits to students’ post-secondary institutions</td>
</tr>
<tr>
<td></td>
<td>Curriculum and core competencies of colleges overseeing DC classes</td>
</tr>
<tr>
<td></td>
<td>Who funds AP tests</td>
</tr>
<tr>
<td></td>
<td>Parents want high schools to offer advanced options</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spatial elements</th>
<th>Where the class is held: high school, community college, online</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High schools are designed for minors: regulations about when students can leave campus, etc.</td>
</tr>
<tr>
<td></td>
<td>High schools are places of adolescent social interactions—assemblies, etc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nonhuman actants</th>
<th>AP tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Curriculum and core competencies of colleges overseeing DC classes</td>
</tr>
<tr>
<td></td>
<td>AP guidelines</td>
</tr>
<tr>
<td></td>
<td>Individual school outcomes</td>
</tr>
<tr>
<td></td>
<td>Individual teacher pedagogies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Collective human actors affected by or influencing ECC</th>
<th>Individual school missions and philosophies—who emphasizes AP and/or DC and how they are emphasized and funded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CWPA, NCTE, and other concerned professional oversight bodies who publish position statements</td>
</tr>
<tr>
<td></td>
<td>Advanced students like to be together</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Individual human actors</th>
<th>High school teachers, counselors, principals, task force calls for college counselors to go to the high school</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Legislators</td>
</tr>
<tr>
<td></td>
<td>Parents</td>
</tr>
<tr>
<td></td>
<td>Students</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discursive construction of nonhuman actants</th>
<th>ECC: get it out of the way</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>These courses are a great way to challenge advanced students</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discursive construction of actors</th>
<th>“Gifted” students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teachers are driven by the test</td>
</tr>
<tr>
<td></td>
<td>Teachers are overworked</td>
</tr>
<tr>
<td></td>
<td>Gifted students are motivated</td>
</tr>
<tr>
<td></td>
<td>Public administrators driven by economics and by parent pressure</td>
</tr>
<tr>
<td></td>
<td>Parents driven by economics</td>
</tr>
<tr>
<td></td>
<td>These students are capable of doing advanced work and of adapting to advanced situations</td>
</tr>
<tr>
<td></td>
<td>Non-advanced classes are composed of students who are “slackers”</td>
</tr>
<tr>
<td></td>
<td>Students don’t want class with others who don’t have the same drive—perception of slacking</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Silent actors/actants</th>
<th>Tests—testing discourse impacts transfer—readers need things to be obvious, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Socio-economic class—could play a part in whether students have access to or cultural precedents to take advantage of advanced options</td>
</tr>
</tbody>
</table>
College instructors

**Major issues**
- Learning
- Consistency among programs accepted for college credit

**Figure 3. Situation map of setting and circumstances for students who are still in high school but taking college-credit courses**

A comparison of the two maps draws attention to overlapping purposes, such as political and economic concerns, and overseeing bodies, such as CWPA and NCTE, which apply to both fields. They draw attention to elements that inhabit more than one category, such as curriculum and core competencies of colleges overseeing DC courses. But they illuminate distinct differences in the fields as well, such as spatial elements. They suggest discursive constructions and assumptions. They also position AP tests as silent actants with great power. The test can affect how students talk about writing and how they produce writing that is easily read by text reviewers. I created a third map (Figure 4) to show the overlapping areas between the two fields under consideration.
**Political/economic elements**  
Pressure to get credits cheaply  
Commodification of college  
Transfer credits to students’ post-secondary institutions  
Curriculum and core competencies of colleges overseeing dc classes

**Spatial elements**  
Overlap occurs when DC students take courses on a college campus

**Nonhuman actants**  
Curriculum and core competencies of colleges overseeing dc classes  
Individual school outcomes  
Individual teacher pedagogies

**Collective human actors affected by or influencing ECC**  
Individual school missions and philosophies—who emphasizes AP and/or DC and how they are emphasized and funded  
CWPA, NCTE, and other concerned professional oversight bodies who publish position statements

**Individual human actors**  
Parents  
Students

**Discursive construction of nonhuman actants**  
ECC: get it out of the way

**Discursive construction of actors**  
Public administrators driven by economics and by parent pressure  
Parents driven by economics  
These students are capable of doing advanced work and of adapting to advanced situations

**Silent actors/actants**  
Socio-economic class

**Major issues**  
Learning  
Consistency among programs accepted for college credit

**Figure 4.** Situation map of overlapping areas between Figures 2 and 3

These maps allow a more complete appreciation of the external influences on the education of ECC students. Students who do well in school usually instantiate the accepted attitudes of their fields.

Clarke also developed “Abstract Social Worlds/Arenas maps.” She says these maps represent
the level of social action—not an aggregate level of individuals, but where individuals become social beings again and again through their actions of commitment to social worlds and their participation in those worlds’ activities, simultaneously creating and being constituted through discourses. (emphasis in original 110)

This relates very clearly to my discussion in Chapter Two of the “transient, overlapping, unstable communities” (or fields) that Anson describes, and “the degree of unity and fragmentation within such communities and the extent to which their actors are situated within multiply configured spaces, each with its own shared assumptions and knowledge” (“The Pop” 537).

See Figure 5 for a very general social worlds/arenas map I created, as I began my analysis, to visually represent the fields of ECC classes and traditional college classes, where they overlap, where they seem unconnected, and how disciplines may fit in the picture. The dotted lines represent the porous nature of the boundaries of the fields. An interesting aspect of the situation that this map shows is the distance from ECC to the disciplines—ECC cannot cover everything.
Figure 5. Map of social worlds in arenas
Validity, limitations, and potential biases

I recognize that validity can be strengthened by multiple sources of data; however, Seidman advocates that “use of in-depth interviews alone, when done with skill, can avoid tensions that sometimes arise when a researcher uses multiple methods. That is especially the case when those methods may be based on different assumptions of what it means to understand the experience of others” (5). I offered my participants the opportunity to review my work and offer feedback about how I present and interpret their data.

In spite of this member-checking, however, my interview participants limit the amount of generalization that can be made with this study. They volunteered to participate; as a result of this self-selection, there are a number of different perspectives to which I will not be privy. Self-selection may give a different picture than if I had access to students who weren’t eager to discuss their experiences. Also, due to the constraints of this project, I was not able to work with a large sample size. An inability to sample to the point of saturation is a limitation. Additionally, as students remember their enacted performance, their perceptions are influenced by many contextual factors. Although I argue that in many ways contextual influences are important considerations, in some ways they are not. As Prescott (pseudonym chosen by participant), says about his high school memories, they are “colored by nostalgia and retrospect,” and may not be as helpful as experiences caught happening in the moment. Another limitation is that participants do not always recognize the unconscious influences on choices they have made and cannot always put their experiences into words.
Still, the comments participants make in the course of such an interview represent the meaning they have made from their memories, regardless of the accuracy of the memories. A larger concern about memory, however, is that these interviews were not conducted as writing challenges were occurring; that is, while students were in the process of writing their college texts. While it would be very useful to conduct a study of students as they write, the constraints of this project did not allow that.

Another limitation is that two of the thirteen participants are my former students. They potentially were influenced by statements I made in class about advanced placement courses since I, because of my interest, sometimes ask questions about how a testing emphasis affects high school experiences.

**Researcher positionality**

My feelings about advanced high school English classes are mixed. I am influenced by my personal experiences with AP English and the experiences my six children had with AP and DC English in three different states. These were largely positive experiences in engaging with interesting content and in being challenged to develop more mature writing styles. I am also influenced as a college instructor by my work with students who took advanced English classes, by my work with Honors students, and by the anecdotes of other instructors. I have taught writers who bypassed English 150 and are well prepared for the work they do in English 250 or Honors English 250; other instructors have not always seen such positive preparation.

I also respect the persuasive voices of scholars such as Kristine Hansen, who argues that more writing practice is always better and that maturation plays a big role in
student writing. Arguments like Hansen’s make sense to me, and yet I realize that advanced classes constitute a valuable option for high school students. So while the teacher side of me would like to make sure that every student has more practice in the form of traditional first-year writing experiences, I have tried to keep my eyes open to multiple perspectives, and the methods I have chosen allow me to do that and not jump to judgments or too easy conclusions. I had to be mindful in my framing of questions. I worked hard to let my participants speak for themselves and not lead them to conclusions. My desire with this study was to see what students from ECC classes transfer and what facilitates that transfer so that we, as educators, can enable positive transfer for more students. If maturational issues impede transfer, I hope to draw attention to how institutional resources can support students in their academic work and what can help them develop mindsets which will allow them be successful. Grounded theory and situational analysis, if done with systematic rigor, allow us to see situations clearly and pay attention to the voices of the participants.

**Works Cited**


*Naming What We Know*, Edited by Linda Adler-Kassner and Elizabeth Wardle, Utah State U P 2015.


CHAPTER 4. RESULTS AND ANALYSIS

In this chapter I elaborate on the methods I discussed in Chapter Three; specifically, I define the codes that emerged from my data, my categorizations of them, and the research upon which these categorizations build. My codes include indications of both disposition and the acquisition of threshold concepts, theories of which are discussed more thoroughly in Chapter Two, but which I summarize at the beginning of this chapter.

Introduction

Transfer scholars have suggested the need for research in both disposition and threshold concepts, and considering both theories in one study is a response to those who, recognizing the complex web of experiences and backgrounds that can influence transfer, call for research to include multiple theories of transfer (Driscoll and Wells 12). Qualitative methods work best for examination of my research questions. It is only by embracing the complexity, nuance, and even contradiction in perceptions of human experience probably “colored,” as Prescott (student participant, pseudonym assigned) said, by “nostalgia and retrospect,” that we can see the larger implications in those perceptions.

First I must note that I found, in accordance with what scholars like Paul Prior and Kevin Roozen have said, memory is inexact. Writing concepts learned in one course are built upon in other courses, and if they become part of an internalized set of mental schema, it may be hard for a learner to remember exactly where they were first learned. I
found some blurring of the boundaries between Early College Credit (ECC) classes and the classes which prepared students to take the ECC classes, between high school writing and college writing, and between various college classes. By blurring of the boundaries, I mean indistinct recollections of where skills such as how to integrate a quote, or how to manage sources for a research paper were learned. Data about these skills ranged from participants remembering specific teachers emphasizing them to just feeling as though these were concepts and practices they had “always known.”

As an example of this, Mitchell described how to “validate” articles, meaning he learned to ascertain their credibility during the research process. When I asked him where and how he learned that, he said, “I think we started in AP Lang, probably. You know, maybe even earlier. In English. I kind of remember discussing it in middle school even, but I probably didn’t really understand the significance. You know what I mean? Whereas, AP Lang, I think I understood a lot better.” For him, this learning process continued into his college experience, with his required library research course, and then in applying that knowledge to other college writing experiences. In college, the value of assessing article credibility became “much more relevant” because he was finally applying what he had learned. Still, the foundation for that skill began in middle school.

What this study examines is the totality of the experience with which these students entered college. Writing progression occurs with practice and repetition. Students who take college-level classes, whether those classes are in high school or college, take prerequisites to prepare them for the level of work they will be doing. Several respondents mentioned high school sophomore level experiences as formative and foundational for the writing they did in their AP classes. In response to contextual
influences, ever dynamic dispositions evolve as well, affecting the ability to transfer. Students may construct new meaning for their experiences, positive or negative, and in some cases, their constructions become colored by the language and values of their fields’ objectives and norms.

My participants talked to me about writing skills and knowledge they remembered and could articulate. Certainly, much of what they learned in high school facilitates what they do in college; several times I pointed to a skill or concept in an assignment they brought to discuss with me and asked where it came from, and they honestly could not tell me. Other than remembering specific teachers with specific agendas, many of these participants had never really considered when or how they developed particular practices. Few remembered significant reflective opportunities in high school, which may have helped them be more cognizant of where they learned certain skills or gained specific knowledge.

As inexact as memory can be, and as unreadable as some previously unexamined experiences are, however, these are the perceptions with which my participants view their high school experiences and their ability to write, and these are the reactions and perceptions which have colored their dispositions and thus, their experiences, in college. Therefore, when I discuss these students and their respective journeys, I cannot always separate what they transferred from class to class in high school from what they transferred from high school to college and what they transferred from college class to college class. Also, since some participants found it difficult to distinguish what class taught them what, I will consider an advanced high school student to be prepared for
college-level communication work not only by AP and dual credit courses, but also by their prerequisites.

To begin this chapter I will briefly discuss disposition and threshold concepts. After that I will present results for each of my three research questions:

- What writing skills, knowledge, and attitudes developed in AP and dual credit enrollment classes do students report as facilitating transfer to more advanced writing assignments in the university?

- What writing skills, knowledge, and attitudes developed in AP and dual credit enrollment classes do students report as impeding transfer to more advanced writing assignments in the university?

- What critical incidents in an advanced university writing experience require students to call upon prior knowledge and skills?

When I discuss my first research question, I will show instances of positive transfer the data reveal. Then I will show the dispositions that emerged in conjunction with positive transfer instances. After that, I show what threshold concepts emerged in conjunction with positive transfer instances. I will conclude my discussion of results from my first research question by showing evidence of intersections between transfer, disposition, and threshold concepts, which is an authentic look at the rich context of transfer situations.

The first research question discussion covers the largest collection of data; because of the volume of data, I report only selected results.

When I discuss my second research question, considering instances of negative transfer, I will again cover dispositions and threshold concepts related to negative transfer. I will then direct attention to significant intersections of negative transfer with dispositions and with threshold concepts because teasing them apart would paint an incomplete picture of what happened, particularly since most instances of negative
transfer occurred with two individuals who also experienced instances of positive transfer in a complicated combination of generative and disruptive dispositions.

My third research question concerns critical incidents. Yancy et al. describe a critical incident or setback, which are terms commonly used in other fields, as “a situation where efforts either do not succeed at all or succeed only minimally” (120). I expanded this definition, based on the grounded theory principle of letting themes emerge from the data, by coding indications of struggle as critical incidents, even if they were not tied directly to failure. Critical incidents can inspire positive or negative transfer, which I will show in my discussion. After I describe the results of my third research question, I will offer some analysis and discussion of these findings, one research question at a time, showing the interwoven nature of disposition, threshold concepts, and transfer.

**Disposition codes**

Scholars argue that disposition plays a key role in transfer. Dana Driscoll and Jennifer Wells say, “It has become clear to us that individual dispositions are not just something that may impact a learning environment; rather, they are a critical foundation upon which learning is built and potentially transferred” (11), and my study confirms that. Driscoll and Wells stress that students’ dispositions can be generative or disruptive; this aligns with Carol S. Dwek’s descriptions of “growth mindset” and “fixed mindset,” which I discussed in Chapter Two. Driscoll and Wells suggest that “disposition” includes the “habits of mind” listed in the “Framework for Success for Post-Secondary Writing Instruction.” In this collaborative document, the Council of Writing Program Administrators (CWPA), National Council of Teachers of English (NCTE), and the
National Writing Project (NWP) describe eight habits of mind they believe enable success in college:

- curiosity
- openness
- engagement
- creativity
- persistence
- responsibility
- flexibility
- metacognition (“Framework”)

In their article, “Beyond Knowledge and Skills,” Driscoll and Wells identify and focus on four distinct dispositions:

- expectancy-value
- self-efficacy
- attribution
- self-regulation

They also allude to other dispositions, including motivation, and acknowledge that “many different types of dispositions exist and that certain dispositions may be more or less prevalent within an individual learner.”

To explore generative and disruptive student dispositions in my data, based on themes that emerged from multiple passes through them, the coding framework I developed is a hybrid framework. In a process of induction analysis, I looked at dispositions that emerged most strongly from my data. What I found was a combination
of some “Habits of Mind,” some dispositions Driscoll and Wells mentioned, and one of my own: “Utilizing Resources,” which was a dispositional trait I also saw in these “freshmores” who were learning to navigate the university and take advantage of its resources. Since physical, social, spiritual, and emotional factors related to the transition from high school to college can affect a student’s ability to concentrate on and produce good work, knowledge and use of resources is an important consideration for this study. Under this code I included resources such as teachers, tutors, parents, online sources, and peers. “Openness and Flexibility” began as two separate codes; I later combined them because I felt they were indicating the same disposition.

Table 3 shows my hybrid framework of the main dispositions, including habits of mind, that emerged from the data: the codes that emerged most strongly, the number of times they appeared in the transcripts, and the operationalized definitions I followed in the coding process. Each time a disposition was indicated in the data, I counted it. Therefore, multiple dispositions were recorded in each interview and sometimes within the same topic of conversation.
Table 3. Framework for disposition coding

<table>
<thead>
<tr>
<th>Disposition</th>
<th>#</th>
<th>Operationalized definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibility*</td>
<td>35</td>
<td>Attribution of success or failure to self or other, speaking about writing processes and choices as their own</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>29</td>
<td>Evidence of an “I can do this” attitude</td>
</tr>
<tr>
<td>Self-regulation</td>
<td>29</td>
<td>Demonstrates the importance of setting and attaining goals, strategies to achieve them, evaluates progress, can be process or resource oriented</td>
</tr>
<tr>
<td>Openness and Flexibility</td>
<td>19</td>
<td>The willingness and ability to consider new ways of doing or seeing</td>
</tr>
<tr>
<td>Utilizing resources</td>
<td>23</td>
<td>Reaching out to campus, community, and home support systems for help</td>
</tr>
</tbody>
</table>

*“Responsibility,” it must be noted, includes two instantiations of responsibility. I used this code, following attribution theory (Munton et al.), when participants took responsibility for their own actions and resultant consequences or when they blamed someone or something else for failure; I also used this code when participants spoke of writing choices as their “own,” rather than as requirements placed upon them by someone else.

Note: I did not code for evidence of metacognition, which is a habit of mind listed in the “Framework for Success for Post-Secondary Writing Instruction,” but it was ever-present since every interview was essentially a metacognitive process. These students talked about their experiences in reflective ways.

As I discussed in Chapter Two, disposition is an important factor in a student’s ability to take advantage of learning opportunities.

Threshold concepts codes

As I will show when I discuss my research questions, the data revealed a number of generative mindsets that allowed each of these students to cross boundaries. But disposition alone is not enough in some cases; students must also possess understanding of what is on the other side of the boundary and may need equipment to cross it. In view of the complex nature of transfer and the processes by which it is facilitated, I also looked for evidence of internalized writing knowledge and practices that the field of writing studies deems crucial to truly learning our craft—threshold concepts—those discipline-specific concepts which have the power, through a liminal, boundary crossing process, to transform an individual’s knowledge and ability to apply that knowledge in meaningful ways. I noted where students already seemed to possess threshold concepts, where they
expressed struggle with them, and the dispositions and resources they used in order to
cross boundaries. I also noted certain threshold concepts with the potential to negatively
impact transfer.

Threshold concepts in the field of writing studies, as I discussed in Chapter Two,
consist of abstractions that seem obvious to expert writers. However, the very nature of a
threshold concept is that, once understood, it becomes so internalized to the person who
crosses the threshold that it seems obvious. These are concepts that novice writers
struggle to use or sometimes even see. Threshold concepts have been called
“troublesome” (Adler-Kassner et al.); indeed, in my transcripts, the intersection of
various threshold concepts with struggle occurred thirty-five times. These are concepts
which must become a writer’s “own” in order to truly be learned. The contributors to
Naming What We Know, edited by Linda Adler-Kassner and Elizabeth Wardle,
acknowledge the slippery task of naming discrete threshold concepts for writing; first,
these concepts are not static, and second, overlap occurs when we try to define them. In
spite of the inherent problems in naming and defining these abstractions, the framework
published in Naming What We Know offers a systematic way of talking about important
writing concepts defined as thoroughly as possible “for now” (xiii). This was helpful for
my project as I looked for ways to name and define writing concepts I was finding in my
data.

The contributors to Naming What We Know created five overarching categories of
threshold concepts for writing, but individual writing scholars also defined sub-categories
that add important nuance to the overarching categories. An example of this is that
disciplinarity fits under two overarching categories: “Writing Enacts and Creates
Identities and Ideologies” and “Writing Speaks to Situations through Recognizable Forms.” “Writing Enacts and Creates Identities and Ideologies” has a sub-category of “Disciplinary and Professional Identities Are Constructed through Writing” that allows me to pay attention to emerging disciplinary identity in the talk of the participants.

“Writing Is a Way of Enacting Disciplinariness” is a sub-category that allows me to pay attention to students learning the genres of their disciplines, and it fits under the overarching category of “Writing Speaks to Situations through Recognizable Forms.” These are two different instantiations of disciplinariness. Table 4 lists the most important threshold concepts my data revealed. The table includes the major sub-categories that I found in the data. It shows the abbreviated name I have given each sub-category for the sake of space in this project, and it includes the number of times each sub-category appeared in the data. Each time a threshold concept was indicated in the data, I counted it. Therefore, multiple threshold concepts were coded in each interview and sometimes within the same topic of conversation.

Table 4. Five overarching categories of threshold concepts and their sub-categories

<table>
<thead>
<tr>
<th>Concept 1: Writing Is a Social and Rhetorical Activity (abbreviated name: Social &amp; Rhetorical)¹</th>
<th>Sub-category</th>
<th>Abbreviated name²</th>
<th># of times it appears</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing Is a Knowledge-Making Activity</td>
<td>Knowledge-making</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Writing Addresses, Invokes, and/or Creates Audiences</td>
<td>Audience</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Writing Expresses and Shares Meaning to Be Reconstructed by the Reader</td>
<td>Reader Reconstructs</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Writing Is Not Natural</td>
<td>Is Not Natural</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Assessing Writing Shapes Contexts and Instruction</td>
<td>Assessment Shapes</td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>
### Table 4 continued

| Concept 2: Writing Speaks to Situations through Recognizable Forms  
(abbreviated name: Recognizable)¹ |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sub-category</strong></td>
</tr>
<tr>
<td>Genres Are Enacted by Writers and Readers</td>
</tr>
<tr>
<td>Writing Is a Way of Enacting Disciplinarity³</td>
</tr>
<tr>
<td>Writing Is Performative⁴</td>
</tr>
<tr>
<td>Texts Get Their Meaning from Other Texts</td>
</tr>
</tbody>
</table>

| Concept 3: Writing Enacts and Creates Identities and Ideologies  
(abbreviated name: Identities & Ideologies)¹ |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sub-category</strong></td>
</tr>
<tr>
<td>Disciplinary and Professional Identities Are Constructed through Writing</td>
</tr>
</tbody>
</table>

| Concept 4: All Writers Have More to Learn  
(abbreviated name: More to Learn)¹ |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sub-category</strong></td>
</tr>
<tr>
<td>Failure Can Be an Important Part of Writing Development</td>
</tr>
<tr>
<td>Learning to Write Effectively Requires Different Kinds of Practice, Time, and Effort</td>
</tr>
<tr>
<td>Revision Is Central to Developing Writing</td>
</tr>
<tr>
<td>Assessment Is an Essential Component of Learning to Write</td>
</tr>
</tbody>
</table>

| Concept 5: Writing Is (Also Always) a Cognitive Activity  
(abbreviated name: Cognitive)¹ |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sub-category</strong></td>
</tr>
<tr>
<td>Habituated Practice Can Lead to Entrenchment</td>
</tr>
</tbody>
</table>

(Naming What We Know)

¹ When I discuss the five overarching categories, I use these abbreviated names.

² For the purposes of exploring these results, when I discuss threshold concepts, I most often use the abbreviated names of sub-heading categories assigned by individual writing studies scholars. I choose to use these finer distinctions because of the nuances they afford in examination of the data.

³ In my coding I define disciplinary writing to also mean academic writing in general, as David Bartholomae describes in “Inventing the University.”

⁴ Learning to “read the teacher” is a theme that frequently occurred. I coded indications of teacher reading as the threshold concept “Performative.”

I must note that we should be careful with what we characterize as transfer. In some cases, a student’s inability to learn something may be based on a lack of scaffolding
or a lack of opportunity to practice. In these cases, it may not be negative transfer at all.

Prescott’s integration of music is an example of this. He said,

The only thing high school didn’t prepare me for was putting in examples of work. All of the analyses I did in high school were based off literature, so there weren’t really pictures or graphics to put in; it was all quotes from the book. With [this] term paper, I had to learn how to put in musical examples . . . I couldn’t figure out how to format it so that it worked.

I initially coded this as negative transfer, because his high school training about inserting quotes seamlessly into a text did not work for him when he had pieces of music he wanted to use as examples in his text. His dispositional traits led him to find the best solution he could: he just “put all of the examples at the back,” but that was not appropriate for what he was trying to do. This seems to be a lack of disciplinary knowledge, however, not necessarily negative transfer. I decided that Prescott’s experience was not one of negative transfer; it was more a gap in his knowledge of how to write in his discipline. Nothing was blocking his ability to retrieve prior knowledge, and nothing from his past was preventing him from crossing the boundary. In fact, Perkins and Salomon caution that “there is considerable interpretive latitude about whether to frame some situations as failure to transfer or failure of initial learning” (“Knowledge to Go” 249).

**Research question one: Positive transfer results**

In this section I look at some major themes that emerged from the data and describe the results I found for my first research question, which is “What writing skills,
knowledge, and attitudes developed in AP and dual credit enrollment classes do students report as facilitating transfer to more advanced writing assignments in the university?” I first describe the variety of instances of positive transfer I found, using the major categories of Perkins and Salomon that I detailed in Chapter One ("Transfer"). Following that, I separately address dispositions and threshold concepts that correlate with positive transfer in the data. Of special interest are indications of intersections between various codes for transfer, disposition, and/or threshold concepts, and although messy, I will describe some of these intersections.

The participants in my study described seventy-two different instances of experiences I coded as positive transfer. These included evidence of near-transfer (writing skills and knowledge used in one situation and easily recognized as useful in a very similar situation), which ranged from students describing prewriting techniques such as brainstorming (Tasha), or outlining (Evie), or writing the introduction and conclusion last (Melissa); to stylistic abilities such as the ability to express thoughts clearly or “eloquently (Kinsey); to what several called “format,” meaning a structure which includes an introduction with a thesis and predictable moves like a thesis being developed in subsequent paragraphs. Several, like Evie, did projects like an ad analysis in high school and found the ad analysis she did in English 250 to be much the same. Many of these representations of near transfer correlate with Adler-Kassner and Wardle’s overarching threshold concept of “Recognizable.”

Positive low-road transfer (where practice can create reflexive responses, sometimes without conceptual understanding or reflection) appeared in the data, for instance, when participants discussed combining simple sentences into more complex
sentences. Melissa showed me a lab report with this sentence: “In addition to the difference between parallel and series circuits, the parasitic resistance in the two point method is much greater than the parasitic resistance in the four point method, at .2 Ω and less than $1 \times 10^{-4} \Omega$ respectively.” She pointed to the complex structure of the sentence and said this type of writing is a direct result of sentence-combining practice in AP classes (as well as workbook practice the summer before her AP class). Because of that practice, she does not like including too many simple sentences in her lab reports.

Multiple participants expressed familiarity with and ability to use rhetorical terms such as logos, ethos, and pathos; several expressed learning them in AP Literature in combination with terminology more often used in literature analysis than other types of textual analysis. “And I used the word ‘pathos,’ and I was like, "yeah, thank you. Thank you, AP classes!” (Kinsey). In interviews where students did not express familiarity with these terms, it was not necessarily because they do not understand them, it is because the terms never came up in our discussion, which is a result of the open-ended nature of my questioning process. Many of these representations of low road transfer correlate with Adler-Kassner and Wardle’s overarching threshold concept of “More to Learn.”

While these examples are encouraging, Yancey, Robertson, and Taczak, in discussing types of transfer, say, “The issue that typically concerns compositionists is not the set of seemingly rudimentary practices associated with low-road transfer, but rather those associated with high-road transfer” (16). Their point is that students do, for the most part, engage in low-road transfer, as these data indicate.

Notwithstanding the challenge, however, evidence of far-transfer (more strategic knowledge where self-monitoring skills allow transfer across a greater distance) emerged
from the data. (Far transfer overlaps in many ways with high-road transfer.) For instance, several students, such as Karl, described an ability to understand rhetorical analysis assignments in English 250 because of literary analysis work they did in high school. Melissa discussed an emphasis on learning about argument in her AP English class. Because of that emphasis, she now sees all writing as a form of argument, even in her lab reports: “It's implied that I'm arguing that my results are accurate or that my results are inaccurate or the best we could do or whatever I'm arguing.” Many of these representations of far transfer correlate with Adler-Kassner and Wardle’s overarching threshold concept of “Recognizable” or “Social & Rhetorical.”

*High-road transfer* (which overlaps in many ways with far transfer and also requires mindful abstraction to make connections) also emerged from the data: Tasha describes learning a formula in an AP history class: “It said you have a topic sentence. You have three sentences afterwards that support this topic. You have another topic sentence. You have three sentences afterwards.” When Tasha got into a dual credit class, her instructor “wanted to destroy that. He says, ‘This is the worst way to cheat and just bashes creativity.’” Then she talks about how she used a combination of the two philosophies for her SAT test and for the paper she showed me: “I followed the formula but I figured out . . . the creative way. You shift from the formula to make it sound more appealing.” She showed me a college paper with paragraphs that contained topic sentences and then support for those sentences, as per the AP History formula, but she described adapting the formula to conform to the needs she saw in the specific college assignment. Tasha wrote the paper in two different sections in response to a prompt which asked for two things, and she feels good about what she produced. Perkins and
Salomon describe meaningful elements of transfer as “detect, elect, and connect” which sometimes happen sequentially and sometimes simultaneously (250) in high road or low road settings (“Knowledge to Go” 251).

Disposition and positive transfer

Tasha’s experience with high road transfer correlates with the overarching threshold concepts of “More to Learn” and “Identities & Ideologies” (Adler-Kassner and Wardle). But the picture of her experience is incomplete if we do not also consider her generative dispositions. Tasha possessed the disposition of “Openness and Flexibility,” the habit of mind (“Framework”) that seems to correlate strongly with the ability to engage in the mindful abstraction necessary for high road transfer. She also exhibited “Responsibility”; she took ownership of creating a process that worked for that paper. She was able to think abstractly and combine instruction from two separate teachers to fit new writing situations. This ability was facilitated by her dual credit teacher’s reaction to the formula she learned from her history teacher. Tasha did not get frustrated and think she had to write differently for different teachers; her success in engaging in a high level positive transfer experience included, among other variables, her disposition plus the teacher’s direction.

In this section I discuss further the dispositions these participants displayed and how those dispositions seem to have enabled positive transfer. In considering the large number and variety of types of positive transfer these data revealed, it is illuminating to see where these instances co-occur with generative dispositions such as the “Openness and Flexibility” that Tasha manifested. It is important to note, however, that not all
participants exhibited generative dispositions at all times; the data are more complex than that.

The dispositions that occurred most frequently are “Responsibility,” “Openness and Flexibility,” “Self-efficacy,” and “Self-regulation.” “Responsibility,” with thirty-five instances, is the largest category in the data. My “Responsibility” code included students talking about their “own” writing processes, which included prewriting activities they considered essential elements of their writing process (John). They looked critically at what high school teachers required them to do in producing a “good” piece of writing, and either adopted the requirements as their own or discarded them as unnecessary (Mary). “Responsibility” means they consider themselves to be in charge of their own learning.

“Self-efficacy” and “Self-regulation” each had twenty-nine instances. Under the code of “Self-efficacy,” I placed statements where students told me they considered themselves to be good writers. They all did. But “Self-efficacy” included more, including sentiments like this one: “I hope I never get asked to do that. I mean I’ll figure it out, but it wasn’t taught” (Evie). This type of take-charge attitude made a difference in the way these students approached critical incidents. Many made comments I coded “Self-regulation” because they spoke of knowing how important it is to not procrastinate (even if they admit they often do). They spoke about “checkpoints” their high school teachers set up to ensure that progress on long projects was regulated, and they talked about knowing the importance of doing that for themselves even if they do not always do it (Tasha). Korrine discussed learning to discipline herself to study for “four or five hours” every night in high school. She learned through writing papers in high school how to
develop checkpoints for herself: “I was used to writing the papers. It was always
structured, like they'd have certain parts for papers. It'd be like two pages due today, four
pages due another day. I learned how to do that for myself and to try not to just sit down
and do it all in one shot the night before.” Korrine was comfortable with the college
environment and felt successful because she had learned “Self-regulation” in high school.

“Openness and Flexibility,” with nineteen instances, was the next most common
disposition in the data, particularly where it related to genre. “Openness and Flexibility”
as a disposition co-occurred with positive transfer when students had a structure (even
formulaic) they could fall back on about how to communicate with their readers and
make arguments clearly (Kinsey), when they felt as though they could adjust that formula
to meet the needs of the writing situation or genre (Mary, Tasha), and when they could
put themselves into the mind of the reader (Melissa). Many times, positive transfer
correlated with genre in an instance of near transfer, where the college assignment was
similar to the high school assignment (Mitchell, Karl, Korrine); this supports what other
researchers have said (e.g., Reiff and Bawarshi).

However, when the college assignment was dissimilar to, or further away from,
high school projects, the disposition of “Openness and Flexibility” made an even bigger
difference to transfer. Openness, according to the “Framework for Success,” involves a
“willingness to consider new ways of being and thinking in the world” (1). Karl spoke
about doing literature analysis in his AP Literature class and how he adapted his ability to
analyze literature to an ability to analyze a newspaper article for his English 250 class: “I
focused mostly on how the author wrote to establish ethos because that’s what I noticed
was most prevalent. Obviously, you can’t write about how it’s foreshadowing into the
future. It’s picking out pieces that the author wants to make himself appear as if he is an influential accredited writer.” Karl is here showing evidence of far transfer: the knowledge that he needed to transform what he learned in literature analysis into something usable for rhetorical analysis. When I asked Karl how he developed his support, he said, “Mostly the use of, and I hate saying this, because I felt like it was such a weak, on paper, to write to, but I mostly focused on is his word choice, his sentence length, and the structure of his words, and also how he contrasted it with the quotes of the people he was speaking about.” Karl feels as though his analysis is weaker than it maybe could have been because he fell back on analyzing diction, an approach common to literary analysis. He senses that there are larger elements he could have analyzed. But using this approach gave him a starting place for developing his ability to analyze other texts. He had some familiarity with what was expected of him even as he recognized that he was approaching the task as a novice.

These participants exhibited, for the most part, a combination of generative dispositions that facilitated a positive transition to college. A strong indication of that is the few instances of “Failure,” under Adler-Kassner’s overarching category of “More to Learn,” that appeared in the data. In fact, some of my participants described modifying their high school drive for straight As and becoming willing to submit a college paper that was “good enough” (Martha, Mary). I coded that disposition as “Openness and Flexibility” because they exhibited a “willingness to consider new ways of being and thinking in the world” (“Framework 1). A major transitional move for some of these advanced students who were so driven in high school was to recognize and accept that, since classes at ISU are harder, they might not get the high grades they did in high school.
(Kinsey, Prescott). For some (Mary), their focus is now on the learning they are experiencing. For others, their change of attitude is a matter of survival in college (Martha). Others, like Kinsey, said freshman year was difficult as she realized she was “just one of many valedictorians.” But she stated that she learned not to determine her value based on how smart she was. She credits her church community with helping that transition, which I consider “Utilizing Resources.” To possess the “Openness and Flexibility” disposition in combination with “Utilizing Resources” creates a powerful context for success. These are indications of students being willing to take on the status of novice, which Sommers and Saltz show as critical for learning.

I found evidence of a growth mindset (Dwek), which I discussed in Chapter Two, in all the participants at some point. These kinds of dispositions put students in a good position to engage in positive transfer. Because transfer is so intimately tied to threshold concepts, I next turn to the threshold concepts that emerged from the data.

Threshold concepts and positive transfer

Transfer is intimately tied to threshold concepts, but transfer and threshold concepts are not interchangeable; they are not the same thing. First, it must be noted that not every instance of threshold concepts coincided strongly with transfer, which indicates that evidence of students understanding threshold concepts is not necessarily an indication of current transfer. I found some instances of threshold concepts in the data that were learned previously and are now integrated into students’ processes and knowledge. That threshold concepts so often co-occur with critical incidents indicates that in some cases, they are still in the process of becoming integrated; the person is in a
liminal state of learning and/or resistance. Additionally, some instances of positive transfer that I noted did not really correspond with threshold concepts. Some were instances where students described their writing process. Martha described how the process of outlining she learned in high school finally became useful to her when she was struggling with managing longer assignments and suddenly remembered past lessons where she was required to produce outlines. The fact that she pulled on prior knowledge to find a tool that enables her to manage large writing projects I define as an act of transfer, but I don’t see a threshold concept from *Naming What We Know* that prewriting processes fit into neatly.

Still, threshold concepts give us a way to talk about transfer and target writing concepts of importance. Due to the abundance of data, I cannot include many of the interesting instances I found of students integrating threshold concepts into their writing experiences in situations of positive transfer. I choose disciplinarity to discuss here because of its importance to the road these students travel. Two separate sub-categories in two separate larger categories exist for disciplinarity, which exposes how connected these concepts are and yet how nuanced. The sub-category of “Enacts Disciplinarity,” under Adler-Kassner and Wardle’s overarching category of “Recognizable,” was evident in the data fourteen times. The sub-category of “Disciplinary Identities,” under Adler-Kassner and Wardle’s overarching category of “Identities & Ideologies” was evident in the data fifteen times. These are examples of positive transfer where students indicated varying levels of integration of the concept of disciplinarity in their thinking and their writing. Because of the interrelated nature of these concepts, other threshold concepts are also evident in learning experiences about disciplinarity.
Disciplinary threshold concepts and positive transfer

As I describe above, in the section “threshold concepts codes,” I include academic writing as a discipline to which students need to cross. (Bartholomae). Students also need to cross the bridge from a more general “academic” writing to the writing they will do as members of a specific disciplinary field. These are two fields, but for “freshmores,” sometimes the two bridges get combined into one. As novices in a disciplinary field, it is also to be expected that they will struggle as they learn to write in their disciplines. That can be a tough path to negotiate when one is a freshman in experience but not in credits and therefore lands in upper division courses. Much depends on the curriculum of the ECC courses, much depends on the dispositions of the students, and much depends on college instructors, curricula, and resources. Chris M. Anson makes an important point when he says

Each field has its own conventions and expectations for writing expertise.

Students are required to write well from context to context in almost chameleonic ways, taking on expertise in completely different domains of knowledge, lurching from one style to another, radically transforming their self-representations from ‘personal’ to ‘highly objective’ to ‘thoughtfully analytical.’ (“The Pop” 540)

In this section I will show evidence from the data of students developing familiarity with academic writing. I will then show data of students enacting and developing disciplinary identity.

Showing that they have achieved some metacognitive distance, some participants talked about being able to discern the difference between writing that “sounded like high school” versus what they considered “college sounding” writing to be. These often are
stylistic moves such as making something sound “academic” rather than “simplistic” (Korrine, Melissa). Melissa twice discussed lower order concerns as being an important takeaway from her high school experience. Evie also said she knows she is capable of writing well because she compares her writing to that of her peers in peer review or to her sister's writing. Several of these students discussed group project papers and how they volunteered to do the final refining and editing, or even most of the writing.

Korrine says

I can effectively communicate my point using good language. One thing that I've noticed in working with group members is that they'll try and use language how you speak and use that in a paper. That sounds horrible, you don't do that. One thing I judge as being a good writer is being able to have a good flow, actually get to the point of what you're saying, and saying it in an intelligent way.

She felt better qualified than the other members of her group:

You can definitely tell in a group which people have been in college, and which people are more prepared, which ones aren't. Like that one freshman that's in my writing group in my class I'm right now--you can definitely tell that she hasn't had AP classes. She's had English 250, but I don't know how well it prepared her for the type of writing that we're doing in that class because they don't really do a lot of analyzing, from what I've heard, because I talk to people about ‘What did I miss in 250?’ They're like, ‘Nothing much.’ I'm like, ‘Okay.’

This is an interesting perspective because Korrine is placing her learning of academic writing practices she developed in high school above the learning her peer received in English 250. In cases like these examples, where threshold concept of “Enacts
Disciplinarity” under the Adler-Kassner and Wardle overarching category of
“Recognizable” is evidenced, students are transferring practices they learned in high
school in perhaps near-transfer ways into academic college writing. But disposition
comes into play as well; students’ dispositions led them to want to take charge of group
projects “I'm one of the group members that doesn't mind taking over” (Mitchell). Their
success in previous writing experiences (and the evidence they see when they compare
their work to others who have not had the background they have) gives them the “Self-
efficacy” to take charge.

Transferring, or adapting, writing into a disciplinary field requires integrating into
the discourse of that field, which often sounds and feels different than the discourse with
which an initiate is familiar. Dylan B. Dryer, who describes the sub-category of “Is Not
Natural,” under Adler-Kassner and Wardle’s overarching concept of “Social &
Rhetorical,” says, “It’s useful to remember that writing is not natural because writers tend
to judge their writing processes too harshly—comparing them to the ease with which they
usually speak” (29). My participants reflect different stages of the transition into
disciplinary identification, from Evie and Mitchell, who are discovering the difference
between high school “fluffy” writing, and more academic writing, and Kinsey and Susan
who communicate in and talk as though they consider themselves members of a
professional community.

Susan’s positive high road transfer into a “Disciplinarity Identity” under the
overarching threshold concept of “Identities & Ideologies” (Adler-Kassner and Wardle)
showed in the stack of lab reports she brought to show me. As we looked at her writing,
formulas, and graphs, she demonstrated evidence not only of belonging to a disciplinary
community but also a keen sense of audience. In spite of the fact that she followed a rigid format for the reports, she knew she needed to “figure out how to explain it to someone else” and “how to display it.” “Audience” is the threshold concept sub-category she was expressing, under “Social & Rhetorical” (Adler-Kassner and Wardle) and is an instance of transferring the ability to speak to her high school audience to speaking to other audiences. She spoke of the lab reports with confidence and as though they had become a natural product for her; her comments also imply that she considers herself a member of a professional field, as opposed to people on the outside who may need her discourse translated: “That is what I’m doing the most writing on right now is technical papers. Being able to take technical things and write them up even for even nontechnical people, I guess, is a skill I learned in high school and still use.” Susan wishes she had had more experience in high school with “actual technical papers,” but she appreciates the attention to audience she gained from her high school experience and seems to have become integrated into a disciplinary field whose members communicate in different ways than her high school English classmates. I coded several of her comments “Disciplinary Identities,” which is a sub-category of “Writing Enact and Creates Identities and Ideologies” (Adler-Kassner and Wardle).

The interrelated nature of threshold concepts is also evident in this example. Because Susan transferred an understanding of how to address audience, an understanding of herself as being apart from “nontechnical people,” she was able to develop a disciplinary identity. Further, Susan also demonstrates an understanding of the concept of “Knowledge-making,” under Adler-Kassner and Wardle’s overarching
threshold concept of “Social & Rhetorical” as she describes the knowledge she creates as she writes:

[The lab reports] help you understand why you’re doing more when you actually write it out in words . . . You don’t really understand what that is until you have to try to explain it to someone else. That was really helpful to actually, after you did the lab, then you could write it out and figure out what you were actually doing the whole time.

Understanding “Audience” also allowed her to develop an understanding of “Knowledge-making” within her discipline.

**Some intersections**

It is clear from this discussion that individual threshold concepts overlap. The uptake of threshold concepts is complicated or enhanced by individual dispositions, just as I have shown that transfer is influenced by dispositions. But it is instructive to look more closely at the intersections between transfer, dispositions, and threshold concepts. In fact, it is artificial to consider them separately.

Many of the representations of near transfer, and several of the representations of far transfer, in these data correlate with Adler-Kassner and Wardle’s overarching threshold concept of “Recognizable” and add to what scholars have found about genre transfer. Rounsaville describes transitional moments where students connect prior knowledge with current genred spaces in moments of “selection, translation, and negotiation” from among sometimes contradictory memories. “Genre,” a sub-category under “Recognizable” (Adler-Kassner and Wardle), is the highest co-occurring threshold
concept with positive transfer in these data, and the disposition of “Openness and Flexibility” is an important element in attaining that threshold concept. In an instance of far transfer, Mary exhibited “Openness and Flexibility” when she discussed how:

concepts of things like formatting the papers and writing out intros and body paragraphs and conclusions kind of translates to everything you write, even writing my lab reports. It's like you have your abstract, you have your intro, you have your methodology, you have your discussion and conclusion. It's kind of the same concept there too.

Mary can see connections between different types of writing assignments—those from her past and those she encounters in college. Without “Openness and Flexibility,” those connections might not have been made. I also coded this segment with two threshold concepts: “Genres,” under Adler-Kassner and Wardle’s overarching threshold concept of “Recognizable,” and “Practice, under “More to Learn.” (These stand out, but others do as well.)

As another example of intersection, many of the representations of low-road transfer and some of high-road transfer correlate with Adler-Kassner and Wardle’s overarching threshold concept of “More to Learn,” specifically the sub-category of “Practice.” Students who exhibit positive transfer and attribute it to the importance of practice demonstrate what Perkins and Salomon call “hugging” (“The Science”). In the intersections I found of positive transfer and threshold concepts in my data, Adler-Kassner and Wardle's overarching threshold concept of “More to Learn” has the most instances: seven in “Practice” and three in “Assessment Is Essential.” This suggests that these concepts are a common threshold for these students at this place and time. These
students, who were motivated in high school to take challenging courses and who have effectively transitioned into a college environment, understand the importance of assessment and practice to their growth as writers; in other words, these students are maintaining dispositions consistent with those of Sommers and Saltz’s novices: one which enables them to continue learning. When students spoke to me of critical incidents and how they worked around or through them, they typically exhibited a stronger sense of “I’ll figure it out” than “I’m a beginner” disposition, though, which I coded as “Self-efficacy.” In the exploration of threshold concepts, this disposition of willingness to be a novice manifests in ways it might not have without the threshold concept lens. These students see value in effort, which scholars such as Bergman and Zepernick have said is important for transfer.

In this section I have shown selected results that relate to my first research question about skills, knowledge, and attitudes that facilitate positive transfer: indications of transfer in each of Perkins and Salomon’s (“Transfer”) major categories of transfer, and dispositions and threshold concepts that co-occur with instances of positive transfer. I have used examples of students developing expertise in academic and disciplinary writing, and I have shown how the data illustrate the intersected nature of transfer, disposition, and threshold concepts. The data indicate that these students are transforming (Wardle) some of what they learned in high school and evidencing understanding of key writing concepts through the application of generative dispositions. Despite generative dispositions and growing abilities, however, the data do show instances of negative transfer, which I will discuss next.
Research question two: Negative transfer results

In this section I look at some major themes that emerged from the data and describe the results I found for my second research question, which is “What writing skills, knowledge, and attitudes developed in AP and dual credit enrollment classes do students report as impeding transfer to more advanced writing assignments in the university?” Instances of negative transfer require special attention because this group of highly motivated students, as I explored in the last section, have all exhibited strong indications of “Self-efficacy” “Utilizing Resources,” and other generative dispositions which enable them to work their way through critical moments. Compared to seventy-two instances of positive transfer in my data, there were far fewer (twenty-eight) instances of negative transfer. Some are fairly minor issues. Still, they are indicative of the trouble negative transfer can cause students, especially since most of these instances occurred with two students. I will first include a discussion of dispositions the data show and then show some threshold concepts which contributed to negative transfer. After that I will consider intersections of negative transfer, dispositions, and threshold concepts in two interviews.

Disposition and negative transfer

When I discovered how few dispositions intersect with critical incidents or negative transfer in the data, I realized that almost all the dispositions I had coded were generative dispositions. The opposite of these—disruptive dispositions such as inflexibility, lack of self-efficacy or self-regulation, or an inability or unwillingness to utilize resources, were not dominant in my data at all. My “Responsibility” code included
the potential for students who blamed lack of success on someone else, but I only had
two instances where I found that kind of attribution. There were moments where students
showed lack of confidence, but they were also not dominant in the data. I could see
situations where students could have benefitted from turning to campus or social
resources to successfully navigate a critical incident and didn’t, but in the cases where
disposition intersected with critical incident, the dominant pattern was one where students
searched for a way to succeed on their own, generally coded as “Self-efficacy.” They
managed the critical incident through “trial and error” (Kinsey), thinking their way
through it (Mitchell), doing “it all on my own” (Prescott), or just “figuring it out.” Such
codes are consistent with what I found in the many instances of positive transfer.

Threshold concepts and negative transfer

The struggle and effort associated with the liminal nature of threshold concepts
may be difficult, but it results in growth in understanding and integration of core concepts
for a discipline. In contrast, the struggle and effort associated with negative transfer is
difficult and can impede understanding and integration of core concepts or create
instances of personal distress. Negative transfer happens when prior learning inhibits a
student’s ability to adapt learning to a new context or when a student cannot access prior
learning that would be useful in adapting to a new context. In each case of negative
transfer, my participants expressed not just struggle and effort but also frustrated efforts.
As I have already discussed, these students all showed willingness to exert effort because
they know that is how learning occurs. They, for the most part, have generative
dispositions. They also showed willingness to accept feedback and see assessment as a
learning experience. But when their struggle and effort do not yield learning, they are left not knowing how to get through the boundary, and their very efforts are frustrated.

The threshold concepts defined “for now” (xiii) in Naming What We Know give us an opportunity to look at instances of negative transfer and more fully understand what types of writing concepts are involved. Table 5 shows instances of negative transfer which co-occur with sub-categories of threshold concepts in my data. As I discussed earlier, some instances of transfer do not co-occur with threshold concepts.

Table 5. Instances of negative transfer and corresponding threshold concepts

<table>
<thead>
<tr>
<th>Participant</th>
<th>Instances of Negative Transfer</th>
<th>Threshold Concept(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evie</td>
<td>Used genre of rhetorical analysis on a different kind of assignment</td>
<td>Habituated Practice</td>
</tr>
<tr>
<td>Evie</td>
<td>Writes differently for every teacher</td>
<td>Performative</td>
</tr>
<tr>
<td>Evie</td>
<td>High school memoir was not like college memoir</td>
<td>Performative</td>
</tr>
<tr>
<td>Evie</td>
<td>Jane Austin’s style does not work for academic papers in psychology</td>
<td>Disciplinary Identities</td>
</tr>
<tr>
<td>Evie</td>
<td>Writing academically can mean writing impersonally, leaving things out for assignments that limit word count, and leaving out “I,” all of which feel inconsistent with high school</td>
<td>Is Not Natural, Genres, Disciplinary Identities</td>
</tr>
<tr>
<td>Mitchell</td>
<td>Conflicting ideas about comma use</td>
<td>Is Not Natural</td>
</tr>
<tr>
<td>Tasha</td>
<td>“Filler” formula learned in high school does not work in college</td>
<td>Assessment Shapes</td>
</tr>
<tr>
<td>Brandon</td>
<td>Relearned writing style for each class</td>
<td>Performative</td>
</tr>
<tr>
<td>Martha</td>
<td>Panic attacks about whether writing was “correct”</td>
<td>Assessment Shapes</td>
</tr>
</tbody>
</table>

(Naming What We Know)

The data show that some threshold concepts do not always lead to positive transfer. “Performative,” under Adler-Kassner and Wardle’s overarching threshold concept of “Recognizable” and “Habituated Practice,” under “Cognitive” are examples of threshold concepts that represent core writing concepts that sometimes prevent productive learning, at least for these students. I coded “Performative” in situations where
students talk about writing “for the teacher.” Understanding that writing is performative is important to understanding its potential for persuasive change. While it is important to understand that all writing “performs” for an audience and should be directed to that audience, Andrea A. Lunsford recognizes the mixed potential of this concept when she says, in Naming What We Know, “In these pieces of writing, students might adopt a role or persona—of the ‘good student,’ for example” (43). This type of performative writing does not seem to allow students the metacognitive distance to engage in transferring effective rhetorical practices for varying situations; students seem to spend their cognitive energy in an attempt to “read” what individual teachers require to be satisfied.

For example, Brandon experienced negative transfer when he felt as though he had to relearn how to write for different English teachers because different classes in both high school and college required different amounts of structure and allowed varying degrees of what he called “creative” expression. Brandon said that, in his AP classes, he learned specific themes that were common to many works of literature, and he was taught how to write about any book in relation to those themes so that he could perform successfully on the AP test. His “Performative” experience did not teach him much that he felt was of long-term value.

Brandon commented about the difference in writing this way as opposed to a way where he was allowed to let thoughts emerge during the writing. He experienced this method before he learned to center his thoughts around certain themes and before he learned to be careful about organizational issues like proper introductions. This is a threshold concept of “Knowledge-making,” under the overarching threshold concept of “Social & Rhetorical” (Adler-Kassner and Wardle). In this instance, the AP approach, or
“Assessment Shapes,” also under “Social & Rhetorical” conflicts with “Knowledge-making.” Brandon was unable to recognize and adapt to new writing situations without feeling as though he was starting over. But start over he did, each time, because he also possessed a motivated and engaged disposition. Now he says, if he were left to do a writing project without a need to “write to the teacher,” he would think the whole project through in his head, then write it, revising as he goes. That is his version of “Knowledge-making.”

Another example of a threshold concept that does not always have positive results in practice is “Habituated Practice,” under “Cognitive” (Adler-Kassner and Wardle). Habituated practice as an example of negative transfer shows up in studies when students display reflexive reactions to situations that prompt them, as in Nowacek’s example of a student who, familiar with the genre of the personal journal, does not achieve the outcome her college history teacher wants when he assigns her to write a journal entry that explores a historical period. “Openness and Flexibility,” as I have already shown, is important and useful to helping a student engage in transfer from a genre learned in one situation to a similar genre in another situation. In my section about positive transfer, I showed how several students were able to adapt their notion of a specific genre to suit a new situation. However, “Habituated Practice,” or the very reflexivity upon which low-road transfer is built, can conflict with that ability to adapt.

One instance of “Habituated Practice” was when Kinsey said she had to get “out of the habit” of using a lot of quotes. From her exposure to scientific writing, she realized that “you’re not supposed to quote people as much.” In this case “Habituated Practice,” or Kinsey’s use of extensive quotes in earlier writing classes, seems in conflict with
“Disciplinary Identities,” under Adler-Kassner and Wardle’s overarching threshold concept of “Identities & Ideologies” but her experiences with and motivation to engage in disciplinary writing gave her the ability she needed to change her habituated practices. This is an instance of a maturing writer with distance to see and do what is necessary to change habits in situations where they are not important or necessary.

What Perkins and Salomon describe as “hugging” (“The Science”) is necessary for writers who are less mature and is an important scaffolding step. When teachers “hug” students by offering them practice in specific skills, their goal is that the students will then use the skills in a reflexive manner in similar situations—low road transfer, or “Habituated Practice,” under Adler-Kassner and Wardle’s overarching threshold concept of “Cognitive.”

But low road transfer has limitations. Distance is necessary for deeper learning and for when new situations require judgments. In what should have been an instance of low-road transfer, one of my participants expressed some humorous frustration. He received contradictory information from two different teachers, and the result was not positive because he could not make a judgement between them. Mitchell spoke of conflicting voices in his head about comma usage. He said his mother often helped him revise his high school papers, and that “I think that also influenced my writing, especially my comma use . . . I’m so heavy on comma use, that I’m now very conscious about it. Then, I’ll still use a bunch of commas. Then, I’ll go back and say, ‘What’s a new sentence? What’s a new thought? Why is there a comma here?’” as though there were a voice in his head. He added,
Now, especially with the comma, I hear her saying, ‘Don't use a comma.’ Then, also, there's another teacher, I can't remember which, but they said, ‘Basically, use a comma when you would want the reader to take a breath.’ I'll just read a sentence, and I'll just so intensely keep reading. I'll be like, ‘Am I taking a breath because I want it? Is that a breath? That doesn't need a comma. Yes, it does. Am I just exhausted?’

I classified this as an instance of negative transfer because the conflicting voices interfered with his ability to practice comma skills effectively. What he wanted to transfer from one teaching situation did not translate effectively to another, and he did not have the judgement to decide which voice was correct. He had a willing disposition, perhaps even one of “Openness and Flexibility,” to learn to improve a skill with which he struggled, but his boundary has obstacles.

**Some intersections—a mix of transfer, dispositions, and threshold concepts**

Two transcripts contained accounts of experiences that were a complex combination of positive transfer, generative dispositions, negative transfer, and the anxiety negative transfer can cause someone who is going through the transition between high school and college. These cases are excellent examples of how generative and disruptive dispositions can co-occur in the same individual. They are also examples of growing understanding of threshold concepts. For Evie’s interview, I coded ten instances of negative transfer; there were only twelve instances of negative transfer in all the other interviews combined. Martha’s contained three, but Martha experienced significant
consequences for her negative transfer. For these reasons, I choose to discuss their experiences in detail here.

Evie described for me moments of positive transfer between high school and college, and she described moments of negative transfer as well. An experience Evie related about her ability to understand and produce the genre of a memoir includes elements of both. She wrote a memoir in a dual credit class in high school and felt good about approaching a memoir assignment in college with some understanding of what it should include. She experienced a bumpy intersection in her near transfer experience, however. This is a section of the transcript where I began by coding positive transfer (the recognition of the genre and ability to write it) and then coded the last sentence as negative transfer, where Evie expresses that knowing what one teacher expected of a genre did not give her the ability to know what another teacher expected of it. She said her high school teacher “wanted long papers and here they want short, concise, to the point. Or at least my teacher did.” She felt that her high school experience prepared her for the genre, but the sensory detail her high school teacher valued did not have the same value for her college teacher. He wanted her to be more “specific.”

The dual credit memoir was the longest paper she wrote for that class (“four to five pages long”), and the English 250 memoir piece was supposed to be only one page long. Because of the difference in the two memoirs, Evie said “That was the toughest paper so far, was trying to make it one paper, one page long.” Additionally, since the English 250 assignment was so short (and therefore probably a low stake assignment), it did not come with much explanation: “It was kind of like, ‘Just write about a memory from work, one page.’” She felt that the long sensory descriptions added good depth and
important points to her high school memoir, an instance where “Assessment Is Essential,” under Adler-Kassner and Wardle’s overarching threshold concept of “More to Learn,” but her inexperience did not give her the ability to navigate this new version of a memoir without frustration. The genre may have had the same name in both instances, but the objectives of the two teachers who assigned it were obviously very different.

Evie experienced negative transfer when she received a Women’s Studies assignment in college for which the directions were not very specific. This was after she had taken English 250, where she had written an analysis of an ad that had been very similar to an ad analysis she had written in her dual credit class in high school: “I didn’t find that difficult because I think rhetorical analysis is basically critiquing another person and I don’t have a problem doing that to other people’s work,” she said. So she experienced positive near transfer between high school and college in being able to produce an ad analysis. For the Women’s Studies class, however, she struggled. She attributed that struggle, at least partly, to the fact that “I had never written for any other class than English.” Here she echoes what other participants said when they realized that English classes focus more on “writing” and less on “content.” She received no rubric for an assignment which was slightly different than any she had done before, and “When I looked at her paper [syllabus], I did what I usually do, kind of more of a rhetorical analysis about her thing.” A rhetorical analysis was not what the teacher was asking for, and Evie did not fulfill the assignment’s requirements, as evidenced by the grade and the feedback she received from a TA; she informed me that “poorly for me is like a B-.” Interestingly, she said, “I had turned in a rhetorical analysis [in 250], and it was about whether I could use ethos, pathos, and point out other people’s writing styles. It wasn't
about whether or not I could explain myself because it's easier to explain other people’s writing styles instead of explain yourself.” Her negative, reflexive transfer, or “Habituated Practice,” under Adler-Kassner and Wardle’s overarching threshold concept of “Cognitive,” was not about producing her own thoughts but about analyzing the thoughts and style of another author, and she did not have the metacognitive distance to adapt what she wrote.

When a second, similar paper was assigned, the threshold concepts of “Assessment Is Essential” and “Failure,” both under Adler-Kassner and Wardle’s overarching threshold concept of “More to Learn” played a positive role in her learning experience. She said she had “a whole month to look at that grade and want to fix it.” Her TAs assessment allowed her to cross the boundary between a known and an unknown genre. Her dispositional attribute of “Utilizing Resources” also came into play. She did “a lot better on the second paper” because she took it to the ISU Writing and Media Center. Between the first and second papers she found value in visiting the Writing and Media Center, where she worked out how to do a better job in fulfilling the assignment’s requirements. A consultant helped her realize that “I guess I explained the idea to myself in my head, and I just don’t understand what the person reading it doesn’t understand,” which is the threshold concept of “Reader Reconstructs Meaning,” under “Social & Rhetorical” (Adler-Kassner and Wardle) is an important concept separate from the one about genre.

This example is an instance where someone is still struggling with the liminality of, among other important concepts, understanding genre. English 250 offered her some transfer experience, but she did not yet cross the boundary with the ability to recognize an
unfamiliar instantiation of genre. An important actant in this negative transfer experience, however, is another lesson Evie learned in high school. Near the end of her interview, Evie told me, “I’ve learned different things. . . I don’t think this is right, but I think what I learned is what they wanted.” She went on to explain that she, “especially with English,” had to learn what each teacher valued before she knew how to write for them: “That’s why every time your first paper I think is always the roughest paper.” She did not think what she was expressing to me was “right,” which implies she thinks that learning how to write should not be dependent on what she called the “opinion” of the teacher. The threshold concept she is expressing is “Performative,” under Adler-Kassner and Wardle’s overarching threshold concept of “Recognizable”; the negative impact of this is that she was distracted from learning to be flexible with genre because she was looking for what the teacher wanted. She was also unable to focus on writing with the type of detail that would enable her reader to understand what was in her head.

In Evie’s experiences with positive transfer and/or incorporation of threshold concepts, her dispositions usually played a key role. For instance, she described learning some disciplinary norms through exposure to the genres of her discipline. She told me that her TA, who “likes adding personality into [a paper] was “okay with” Evie using first person in a “scientific” (psychology) paper, but that “Now after I’ve read a ton of papers, that’s not acceptable; that’s not what you would do if you wanted to be published or taken seriously.” Evie has made the decision that in psychology writing she will use the basic structure the TA recommended, regarding, for instance, how to construct an introduction, but that she will not use the pronoun “we,” an instance of high road transfer. She shows signs here of taking on a disciplinary identity with the threshold concept of
“Disciplinary Identities,” under Adler-Kassner and Wardle’s overarching threshold concept of “Identities & Ideologies.” She spoke with confidence about her decision not to use first person despite what the TA allowed, which shows growth in the “Responsibility” disposition and could give her more positive experiences in the future.

Martha did not have as many instances of negative transfer as Evie did, but her experiences are also an instructive example of how interrelated these concepts are. During the interview, Martha expressed herself with confidence and exhibited several generative dispositions. But as she related her experiences, it was clear that she had experienced some major disruptions and frustrations during her first year of college. As a seventeen-year old student coming into college, Martha experienced transitional difficulties as a “freshmore.” For example, she discussed receiving vague prompts for a Spanish composition assignment and said, “He's just like, ‘write a paper on it.’ I'm like, ok, is this normal for college? I'm not sure.” She had little experience with college teachers or courses at that point and found the lack of specifics disconcerting. The instructor of this upper division class had given the class five prompts from which to choose. He provided a rubric with feedback when he returned her completed assignment—the students in this class could revise their assignments if they wanted a better score. Martha’s score changed from 88/100 to 98/100, but not before she questioned what college was like and wondered how she could measure up to expectations she did not see. She was qualified to be in an upper division language class, but her transition into its upper division writing expectations was rocky because of her inexperience and lack of confidence.
In fact, Martha experienced such extreme anxiety in her Honors English 250 class that she failed it. She was afraid she would do the major research assignment “wrong” and was not able to really begin it. Interestingly, she expressed that she experienced less anxiety in the Spanish composition class because “I'm okay with getting stuff wrong in Spanish . . because everyone's going to do it and probably worse than me,” whereas in her English class, she felt more anxiety. Her reasoning was that English is her native language, and that therefore she felt less justification for imperfections. Additionally, when she discussed her perception about why she failed her English 250 course, she suggested her failure was very much related to her AP English experience:

In AP English, my teacher set out good guidelines for our work, like instructions clearly telling us what we needed to do. And so I would write a paper that was good and like organized, well written. But, she was very opinionated. . . and even if I supported my position and view, she would be really picky and say ‘good thoughts, but this isn't actually like how it is.’ So she took points off for me having a different opinion than her.

As an example, Martha described an AP English assignment about Hamlet and how she responded to her teacher’s feedback:

We were writing a paper on Hamlet and it was timed--it was for an exam. I put forth some hypothesis of... I don't really remember, but she's like, ‘you’re close; you’re getting there, but this is wrong.’ I'm like, it's not wrong, it's just different from what you were taught or what you believe. I supported it!

In this instance, the threshold concept of “Failure” did not get crossed. She could have learned from her failure, but did not. Neither did the threshold for “Assessment Is
Essential.” Both concepts fit under the overarching category of “More to Learn” (Adler-Kassner and Wardle). Failure became a solid boundary. Martha had no idea how to improve her writing if it was to be graded on what she considered to be the teacher’s opinion. She learned the lesson of the performative nature of writing, and that did not allow her to cross the boundary; the negative transfer that ensued was basically paralytic anxiety. The way Martha perceived the teacher’s assessment, with the disposition she possessed, created a paralyzing situation for her when she began college:

In English 250, I would start out an assignment and I had like writing anxiety for the first time in my life. Like, I didn't know how to begin. I didn't feel like I had enough information to go on to make sure that it wouldn't be wrong for some unforeseeable reason, like in my English AP class. And it really stressed me out when I had to start an assignment, so I didn't finish the final assignment for the most points in that class. It was a research paper, and I started it, and every time I sat down, I would have like panic attacks about it.

As a “freshmore,” Martha did not have the self-efficacy to continue, and she did not know of or use the resources which could have helped her succeed. The assessment aspect had such a strong hold that her struggle, created a negative transfer situation rather than positive growth. The above quote, “In AP English, my teacher set out good guidelines for our work, like instructions clearly, telling us what we needed to do. And so, I would write a paper that was good and like organized, well written” says a lot about Martha’s expectations for how an assignment should be set up and communicated.

Reacting to college writing in general, Martha said “I wasn't prepared for the variety of perceptions when it comes to writing from the professors. They all have a different style
and an approach, and that can make it easier or more difficult on the student.” Clearly, this perception reinforced the concept that she must “figure out” what the teacher wants in order to perform successfully in class. Additionally, part of that “style and approach” was availability and attitude about helping individual students:

In my linguistics class, the professor was more involved in the writing and the process a little bit, and she was often available for help if we needed it. I mean and Spanish it wasn't like that. The professor would assign us a paper and then say we didn't have to come to class for the rest of the week until it was due, which I liked.

In her linguistics class, Martha experienced anxiety as well, and some of it related to her inability to “Utiliz[e] Resources”: “The linguistics prompts are more complex and specialized and sometimes I didn't understand them or what I was supposed to do and I was nervous to even ask about it to my professor because I've never had to do that.” As a gifted student who did well in high school, she said she never had to really talk to her teachers (as opposed to students like Mitchell, who said becoming friends with high school teachers made approaching college teachers seem natural).

But in the linguistics situation, Martha made a significant dispositional change. Unlike what happened in her 250 course, she realized for her last two assignments of linguistics that “all the perfectionism was holding me back,” and “I just accepted that I might get stuff wrong.” Here we see glimmers of positive attribution “Responsibility” and “Self-efficacy.” When she pushed through the anxiety and turned in an assignment that she felt wasn’t perfect, she received an A, which resulted in increased her feelings of “Self-efficacy.”
These two students showed gradual progress in taking ownership, developing self-efficacy, and using resources, but their generative dispositional attributes seemed to be counteracted by negative experiences in key threshold concept areas. Establishing these tensions and the interwoven nature of negative transfer, dispositions, threshold concepts, and positive transfer is important to fully understanding their situations.

**Research question three: Critical incident results**

In this section I look at some major themes that emerged from the data and describe selected results I found for my third research question, which is “What critical incidents in an advanced university writing experience require students to call upon prior knowledge and skills?” Yancy et al. describe a critical incident or setback, which are terms commonly used in other fields, as “a situation where efforts either do not succeed at all or succeed only minimally” (120). I expanded this definition, based on the grounded theory principle of letting themes emerge from the data, by coding indications of “struggle” as critical incidents, even if they are not tied directly to failure. Some critical incidents expressed in these data represent ongoing challenges for the learners—not necessarily singular incidents—but writing concepts that are bothersome but in the process of being gradually refined. Some critical incidents are specific to certain assignments, or become turning points in understanding a threshold concept. In fact, teacher feedback (“Assessment Is Essential”) and growing competence “Practice” surface as especially important concepts for which these students gain understanding in many of the critical incidents they describe. Both concepts fall under “More to Learn” (Adler-Kassner and Wardle).
I have already discussed some of the participants’ critical incidents in the previous sections of this chapter, as they were important to considerations of positive and negative transfer, what dispositions enabled or constrained those moments of transfer, and what threshold concepts the students gained. Critical incidents, as the data have shown, can affirm learners’ generative dispositions and/or allow them to incorporate threshold concepts in positive ways. “Failure can be an Important Part of Writing Development” is an important threshold concept that can affect students in either positive or negative ways. In some cases, failure can cause learners to stop at a threshold, especially in cases where they do not have generative dispositions, as I have shown in instances of negative transfer. Negative transfer can constitute a “critical incident”—but not necessarily a productive one. In this section I will focus more on what constituted critical incidents in my participants’ perceptions.

Critical incidents I described earlier in this chapter include the following:

- prompts that did not sound like prompts they wrote to in high school
- recognition that they cannot always get straight As
- encountering a new genre or a genre they thought they knew but had different parameters than what they had encountered before
- group projects
- Learning disciplinary norms
- The style of writing they used in high school is challenged
- Assessment
- Memory of assessment
Besides the incidents I described in my discussions of positive and negative transfer, I now focus on a few critical incidents that illuminate how students call on their prior knowledge and how dynamic this process is. The incidents include:

- Connecting with an audience
- Conciseness
- Research assignments

**Connecting with an audience**

Learning how to connect with an audience (“Audiences,” under Adler-Kassner and Wardle’s overarching threshold concept of “Social & Rhetorical”) is a concept both Karl and Melissa described as struggle and from which they gained a better understanding as they learned to really connect with their readers. In Melissa’s experience, it is a growing competence: “I really struggled with [arguing in way that people understand] in English II, Honors English II in high school. And then, kind of going forward, in Lang I got better at it, but it’s still something I have to be very conscious of whenever I’m writing that in a way that is overtly argumentative.”

**Conciseness**

Issues of conciseness seem to be a struggle for several participants, but feedback played a major role in helping them refine their writing. Mitchell has what he describes as an ongoing issue with conciseness, but when his wordiness was brought to his attention in high school, he learned to look for it in his work. Thus, the concept “Assessment Is Essential,” (under Adler-Kassner and Wardle’s overarching threshold concept of “More
to Learn”) in his high school carries on as a benefit to his college writing growth. In Mary’s case, the challenge to be concise also began in high school, but she described meeting this challenge not necessarily because of teacher feedback but “I think it was more myself kind of coming to the realization and working on that.” Her classmates were doing much shorter work and fulfilling their assignments without going to the time and length that she was. “Self-regulation” is a disposition at play here, and it is a disposition she continues to display in college. Mary, like Mitchell, continues to work with the challenge of conciseness with some success. A college assignment she described to me as difficult was a multi-modal project where she created a visual-heavy instruction manual for children. In fact, it was too visual-heavy, according to her peers who gave her feedback. When she took out many of the pictures, she liked the manual much better. Mary didn’t accept the peer feedback blindly, but after she considered it and liked what they said, she made her choice in a move that indicated “Responsibility.”

Besides showing Mary’s independent, “Self-regulation” disposition, this experience is also an indication that she values peer feedback. Evie, too, developed more conciseness in her writing because of feedback, but this was feedback from her instructor. She valued the feedback on the rubric that came with her graded paper in college classes— “The feedback I got from those classes were [sic] really great, and it helped me realize that writing a lot doesn’t mean writing right.” Karl feels that he improved through feedback where the teacher acted as an authentic audience for his papers and “said this is awkward, and I don’t understand.” The data thus show that these students are very sensitive to feedback. Valuing feedback is an indication of having crossed the threshold
of the overarching category of the threshold concept of “Social & Rhetorical” (Adler-Kassner and Wardle).

For several participants, conciseness became important because of word limits in college writing assignments. Karl said “Near the end [of the course with word limits], I got better at cutting it down, of course.” His “of course,” here represents the threshold concept of “Practice,” under “More to Learn” (Adler-Kassner and Wardle) and signifies that he has crossed the threshold with understanding the importance of practice. In general, several of these students have the metacognitive ability to gain from feedback and the dispositions to accept it.

**Research assignments**

A major site of critical incident was research assignments. My participants’ research projects ranged from disciplinary capstone Honors projects they hoped to publish in academic journals to English 250 arguments. Research projects are challenging in many ways. They require multiple skills and higher order thinking. Sometimes the critical incident was narrowing down a topic (Brandon) or choosing a topic without the luxury of the list of potential topics the high school had always provided (Korrine). Sometimes it was formatting (Evie, Kinsey) or finding appropriate scholarly sources (Prescott, Kinsey). In genre-related critical incidents related to research assignments, Tasha struggled with the difference between “factual” academic research writing and the “descriptive” writing she had done for the 4H newsletter, and Mitchell struggled with making a blog less lengthy and academic. Learning how to synthesize sources is an
opportunity to learn the threshold concept of “Meaning from Other Texts,” under Adler-Kassner and Wardle’s overarching threshold concept of “Recognizable.”

Learning to include their own arguments is an opportunity to practice “Knowledge-making,” “Social & Rhetorical” (Adler-Kassner and Wardle). Both concepts should be major outcomes of a research project, and both require effort and practice. For Brandon and Mitchell, one of their biggest challenges with research assignments was synthesizing outside sources and including their own argument in appropriate ways. John described a research process he was proud of and the growth he experienced. It was an assignment where he approached his topic without a pre-determined opinion, spent time researching and thinking critically, and then let his opinion emerge in the process of the writing. “Knowledge-making” is a threshold concept at work there, as well as some great learning about the importance of maintaining “Openness and Flexibility.”

This academic writing with which students struggle is part of their liminal experience as they become members of an academic community. In alignment with the definitions I describe earlier, these academic growing experiences fall under the threshold concepts of “Disciplinary Identities,” under “Identities & Ideologies” and “under “Enacts Disciplinary,” under “Recognizable” (Adler-Kassner and Wardle). Some students have good experience in high school to help them cross the bridge to the academic research they will do in college; some do not; most wish they had more.

Critical incidents intersecting with transfer, disposition, and threshold concepts

But the accounts of many of these participants are good examples of positive learning taking place in spite of, and often because of, their critical moments. Melissa
describes how the skills and knowledge she learned in high school enabled her to engage in the mindful abstraction necessary to cross the bridge to disciplinary writing. Because she often experiences difficulties beginning a paper, her high school teacher suggested that she begin writing the main part of a paper before writing the introduction or conclusion. Also in high school, she practiced, and therefore learned, what she considers to be useful vocabulary. The critical incident she described occurred when she took a technical communication class and had to write a proposal. In this example, she transfers the process her high school teacher taught her as she wrestled with a completely new genre:

The beginning and the middle helped because the introduction again was very difficult for me, summarizing and convincing at the same time. So I began with the current situation, wrote most of it and went back. . . The only thing I would say was kind of prohibitive from high school was that I never really learned about this. They weren't preparing to write in the work place, they were preparing me to write in college. . . But I didn't really, my, the base of knowledge that I have from my English classes in high classes still helped me to write effectively. It gave me a good vocabulary that I could use to express my ideas. That's something else we did a lot in high school. We did a lot of vocabulary and vocab test—and I'm blanking on the word right now—but different forms of the same word.

Melissa had more working for her here than an extensive vocabulary. The vocabulary may have given her confidence to feel that she could approach the boundary, but the thinking process her teacher encouraged helped her get past the writing block she recognized and worked around. She became a boundary crosser (Reiff and Bawarshi).
We also see generative dispositions coming into play when I asked Melissa what her thought process was as she approached writing the proposal. She said,

So my first thought was, kind of, what is the problem statement? What am I trying to, kind of, fix? What am I trying to...because the proposal is argumentative? You're trying to convince somebody. And so my first thought was okay, what am I going to try and convince them of? And once I figured that out my next step was, how am I going to convince them? And then, after that, it was making sure that I had all the right sections, or the formatting that the professor wanted, and then the writing kind of happened in the middle layer between those two steps. And then editing it and making it, making sure that it fit. This was our second writing for that professor. So making sure, third writing. Making sure it fit what I knew he already wanted and kind of what he was looking in.

This is the disposition of someone who shows persistence and flexibility in spite of revealing a bit of the threshold concept of “Performative,” under “Recognizable.” (Adler-Kassner and Wardle). This is a good example of “Enacts Disciplinarity,” under “Recognizable” (Adler-Kassner and Wardle) and of the beginnings of the construction of a professional identity by building on prior learning experiences about writing process.

As I discussed above, Evie showed a combination of negative and positive transfer moments, and a puzzling mixture of contradictions in some ways. However, her experience with APA formatting is an example of how critical moments can hinge more on disposition than on prior learning. For a college psychology paper, her teacher created an extensive handout about how a research study written in APA style should look. What Evie described to me at this point in the interview as “APA style” included how to format
the study into elements including Methods, Results, and other sections common to a scientific study. She appreciated that formula: “With any psychology paper I write, it already comes to me that way, and I just need to fill in what I need to do.” This maybe is a positive instance of “Habituated Practice” (under “Cognitive” (Adler-Kassner and Wardle) as she works her way into understanding a discipline.

In other aspects, she really struggled with APA formatting. In high school, Evie was taught to write with MLA format and told that she would learn APA in college. She expressed anger that her high school teachers had not taught her APA. (My understanding is that, at this point, she was talking about APA citations rather than just what sections a scientific paper should include.) She said,

I was really afraid that I was going to do it wrong, because I know how long it took me to get MLA down right. Because they would ding you on the formatting in high school, like, ‘You should be doing this.’ I was like, "They’re not even going to ding me on the formatting; they’re just going to be like 'you didn’t do APA right,' and I’m not going to know exactly what I’m not doing right. It’s just a five-point part on the rubric that says, "Formatted correctly? Yes or no? Five points or zero points?"

Here we see worry that she will be “wrong,” and that in college she might not get helpful feedback about what she needs to change. There is an element of “Responsibility” where she attributes her lack of knowledge to her teachers—one of the few dispositions in these data that are not generative. In fact, her attribution of blame was so strong that it dominates her memory of high school citation instruction.
Interestingly, however, Evie did have helpful high school citation instruction. She did not remember it very easily, though. In fact, had she not possessed some positive dispositional characteristics, she may never have accessed it. In the midst of wishing her teachers would have taught her APA, she went on to describe an experience I coded as positive transfer, connected to the generative dispositional traits of “Self-regulation,” “Utilizing Resources,” and finally “Self-efficacy.” She was angry at her high school teachers for not teaching her APA formatting, and she was scared she would do something wrong, but when she needed to use it she decided, “Well, I have to get it done,’ so I just figured it out.” “Self-regulation” and “Responsibility” served her well in a critical moment. In this moment, she remembered that her high school teacher had showed her the OWL at Purdue as a resource to use for MLA citation formatting, so she went to the OWL and learned how to do citations in APA format. She said she thinks she had a college teacher mention OWL to her as well. Wherever the memory came from, or whether it was a combination of memories, Evie accessed it and figured out what she needed to do. In the process, she developed more self-confidence. This experience was a learning opportunity that made her leave the comfort zone of a teacher’s handout, and she found the answers she needed. Disposition played a key role as she learned to enact academic disciplinarity through writing.

Some critical incidents the students described are familiar challenges with which they dealt in high school. Their high school experiences prepared them to be aware of and recognize problematic writing areas and make incremental progress in efforts to better their writing with near transfer practices. For others, their prior experiences from high school and/or their dispositions enabled them to face critical moments with ability even if
they were far transfer opportunities and unfamiliar on the surface. Melissa approached a
disciplinary proposal by parsing it into recognizable concepts and using a familiar
strategy. Evie decided to “get it done” and found a resource that worked for APA
citations. Individual victories add up to confidence and positive identities. These
eamples illustrate the complicated nature of memory, transfer, student dispositions, and
the range of critical instances this study investigates. These critical incidents I have
described are illustrations of students achieving and developing understanding of
threshold concepts in instances of positive transfer.

To pull back and show a bigger picture of these data, and to summarize these
results, Figure 6 shows the intersections of disposition with both positive and negative
transfer. This Figure contains all the dispositions the data revealed before I reduced it to
the most common categories. Concepts with zero instances are dispositions that
manifested in the data but not in conjunction with transfer.
It is clear from this Figure that the disposition of “Openness and Flexibility” is prevalent in the data, with eleven instances. “Value,” with five instances, is also relatively high, representing the importance these students see in the educational opportunities they discuss. Altogether, these generative dispositions shown in these data contribute to the success students feel they have achieved in college and the mindsets they have employed to face their challenges.
Figure 7 shows the intersections of threshold concepts with both positive and negative transfer. This Figure contains all the sub-categories of threshold concepts the data revealed, according to the categorizations of the writing scholars in *Naming What We Know*. It is instructive to view which threshold concepts co-occur with only one type of transfer and which co-occur with both. Concepts with zero instances are concepts that occurred in the data but not in conjunction with transfer.
Figure 7. Intersections of threshold concepts and transfer

Figure 7 shows that “Performative,” under Adler-Kassner and Wardle’s overarching category of “Recognizable” has the largest co-occurrence with negative transfer—six instances. It shows that “Genre,” under the same overarching category, has
the largest co-occurrence with positive transfer—fifteen instances. This illustrates why using the sub-categories offers more nuance for analysis. “Genre” also ties for the second highest number of instances of negative transfer, with five instances. As I have explained, genre knowledge, unless approached with metacognitive distance, can be applied in inappropriate ways.

The second largest co-occurrence with positive transfer is “Practice,” under Adler-Kassner and Wardle’s overarching category of “More to Learn,” implying the prevalence of generative dispositional attributes that enable these students to take on the role of novices. The second largest co-occurrence with positive transfer—seven instances—“Assessment Shapes,” under Adler-Kassner and Wardle’s “Social & Rhetorical,” indicates the positive influence assessment practices have played in some of these students’ lives. At the same time, “Assessment Shapes” tied for second highest number of instances of negative transfer, indicating that assessment practices do not always yield positive results. In the next section I offer some analysis of these complicated intertwinnings.

Analysis

This section presents additional analysis for the above results. Before I analyze results specific to my research questions, I will focus on assessment and evaluation because of their prominence in the data. My situational analysis maps 2, 3, and 4 (Clarke) in Chapter Three highlight the need to pay attention to the role of the AP test, which is a voiceless but influential actant in the high school experiences of these students. At this point, however, it is important to point out the difference between assessment and
evaluation. Stephen Tchudi, editor of *Alternatives to Grading Student Writing*, delineates the differences between these often-conflated terms. He describes assessment as a way to develop student writing through practical feedback that guides students to see and situate their writing within the demands of the current rhetorical situation (xiv). Tchudi says the term evaluation “implies fixed or a priori criteria rather than evolutionary or constructed values.” It compares “work with some sort of marker, benchmark, or standard” (xv). The AP test, then, is evaluative. But these data indicate that assessment is an influential actant as well. As I examined what enabled students to progress, the data uncovered an institutional field that utilizes formulas and feedback to offer scaffolded writing practice sometimes but not always explicitly related to the AP test. The lens of threshold concepts allows us to look carefully at the influence of this formative scaffolding.

Formulaic writing is easier for AP test evaluators to score, and certainly was used to prepare students to write for the test, but formulas are also revealed in the data as simply scaffolding for students who are learning how to write. These data show that students built on that scaffolding to good effect. Sadhana Puntambekar and Roland Hubscher, extending the work of Vygotsky, describe scaffolding in terms of a framework they developed to represent consecutively lessening interactions between an expert and a learner. This framework consists of four parts: first, intersubjectivity, where the expert and learner collaboratively develop an understanding of the learning goal; second, ongoing diagnosis of the learner’s understanding; third, dialogic and interactive instruction; and fourth, fading—where the expert lessens formal support because the learner has come within a reasonable range of doing the task on her/his own. At this point, scaffolding has been sufficient and can be removed (Puntambekar and Hubscher 2-
But the danger in formulas is that they can become reified practices, entrenched habits that prevent transfer, as I have discussed, because when students hold fast to a boundary marking their prior knowledge they are boundary guarders, not crossers (Reiff and Bawarshi). They need to have a larger vision of what the scaffolding is supporting them to do.

Thus, in some instances, formulas and tests created challenges that resulted in negative transfer when the students entered college. These complexities attest to the importance of understanding the multiple and varying influences of bioecological environment on students (as I discussed in Chapter Two) (Bronfenbrenner and Morris) and also indicate areas where disposition plays a large role in students’ ability to transfer. The concept of assessment is an example of the difficulty in categorizing writing concepts and of the danger in tying students’ responses into neat little bundles within categories. This is because assessment and evaluation practices can positively and/or negatively influence students through critical incidents, depending on contextual influences and individual dispositions. So I will here focus on formulas and tests and then provide some analysis more closely tied to my specific research questions, recognizing the importance for this population of highly motivated students of instances of negative transfer.

**Formulas and AP tests**

The results of learning a “formula” for writing are mixed. Multiple respondents talked positively about learning, in high school, how a piece of writing “should” be structured; some even called it a “formula.” This generally included a funnel shaped
introduction with a thesis at the end of the introduction. Their understanding of correct structure usually included topic sentences in paragraphs. Several described being taught how to effectively present an argument. Many considered their understanding of structure to be valuable in knowing how to approach writing assignments at the university. Kinsey said,

> In high school I thought a lot more about what I was writing, as in like I thought more about the processes, I thought more about what I needed to do, and like you talked about the transitions and statements and stuff like that, here sometimes I'm just pressed for time that I'm like ‘let's get this done.’ I just kind of write, and it’s good that I have the background. When I do just write, it comes out all right.

Earlier in the interview she had told me

> I feel like I had a solid foundation of how to write an essay--like you need an intro and your thesis statement at end of the first paragraph; you need to definitively state in the first sentence of each paragraph what the paragraph is going to be about. You need the first sentence of your conclusion to your thesis statement restated to conclude it.

Kinsey did not have much experience with research papers, but that did not phase her: “I knew I had to learn that new format. At least I knew how to write a paper. At least I knew the structure.” She had the self-efficacy to approach research assignments with confidence, and her confidence and ability to transfer was built on the writing background she had in high school. Kinsey was a senior student who says she never took a college class that required much writing and feels that the structure she learned in high school, through the formative opportunities there, served her well.
Assessment appears either as a positive or negative actant in the situation I am studying, as part of the larger institutional fields influencing my participants. This importance is represented in the intersecting data. Two of the sub-categories I found most prevalent in positive transfer situations deal with assessment and were major factors in the writing development of my participants. “Assessment Shapes” falls under the overarching category of “Social & Rhetorical” (Adler-Kassner and Wardle) and occurs twenty-three times in the data, often more as evaluation than as assessment as Tchudi defines the two terms. Many of the representations of far transfer correlate with the overarching category of “Social & Rhetorical” (Adler-Kassner and Wardle). “Assessment is Essential” occurs eighteen times; it fits under the larger category of “More to Learn.” Thus, assessment practices can be key players in critical incidents and how these participants use prior knowledge.

In some cases, participants revealed that their writing was influenced by assessment that made little sense to them, as when they learned to write “for the teacher.” Whether or not those assessments were designed to scaffold learning in important ways, the students who expressed that sentiment did not pass over any writing thresholds owning the concepts those teachers were promoting. However, in other situations, assessment guided student learning in important ways, such as when Karl described working on a major research paper in his AP Literature class:

We kept getting feedback along the way. Every few weeks we met with our teacher. He'd say what he was thinking about our writing. In the end, I ended up getting, I think, a B or a B plus. Which is lower than the average grade. In the
end, I was so satisfied. I felt like I put in a lot of good work and that it was one of
the better writing assignments that I had done.

Here we see a student valuing his learning above the grade he received, and formative
assessment was a large part of that learning.

Not everyone was entirely motivated by the learning, however, as evidenced by
Korrine: “Everything was completely graded in that [high school] class. That really
motivated me personally because I was like, I need to do well; I want to do well in this
class. I'm a very internally motivated person.” Korrine considers herself to be a good
writer, and her disposition of “Motivation” played a key role in her ability to learn from
the evaluative experiences she had in high school. In both cases, assessment and
evaluation played a positive role.

Interestingly, AP testing or preparation for AP testing did not appear to be a
negative transfer experience for the students in this study, except for Brandon, who felt as
though each class he took required him to learn a different style of writing: “I had to, like,
learn how to rewrite for the AP test both years essentially, is what it felt like to me at
least.” However, even he said

That's something that does help with the AP testing structure--is like you are able
to, like you practice prioritizing information quick, like efficiently ‘cuz you have
forty minutes per essay, so you've got to be able to pick something out and
prioritize that . . . So, yeah, that's something beneficial that I got out of doing
those writings.

In fact, several (Kinsey, Korrine, Mary) discussed the advantage of learning to quickly
focus on a topic and write a thoughtful and detailed piece in a limited amount of time.
“Habituated Practice,” under “Cognitive” (Adler-Kassner and Wardle) in this instantiation is a threshold concept with positive value. So, while scholars such as Anson suggest that the testing environment has a detrimental effect on students learning to write (“Closed Systems”), the experiences of these students point to a benefit they feel they gained from being in that environment. This could be an example of students not being distant enough from their educational field to really “see” it; none mentioned state-mandated testing, but Anson’s suggestion relates to an environment where such tests are part of the very fabric of the institutions.

I had assumed that formulas or habituated practices might be a problem for students who study or drill intently to take a “writing” test, because of the reflexive nature of some test practices. In a few cases in my data, habituated practices did complicate tasks. But in other cases students appreciated formulas. The instances I found where habituation from high school habits caused complications were not usually related to practicing for a test, unless it was in the positive sense of learning to think and write quickly, which the students seem to have appreciated. Overall, these students’ remarks revealed the importance of assessment to them. Because of experiences they had with feedback in high school, they revealed the metacognitive ability to learn from it, and they have the dispositions to accept it.

Analysis of positive transfer results

As I discussed the data relating to my first research question, I showed how my participants exhibited a number of generative dispositions and how those dispositions in combination with teacher guidance and opportunities for practice played an important
role in the students’ transfer of writing skills and knowledge in their college classes. There were many examples of different kinds of transfer accomplished and different threshold concepts exhibited. “Assessment Shapes,” under Adler-Kassner and Wardle’s overarching threshold concept of “Social & Rhetorical” and “Assessment is Essential,” under “More to Learn” showed significantly in the students’ experiences. They, in many instances, exhibited the disposition to be novices that Sommers and Saltz show is so important to learning. Sommers and Saltz and Yancey et al. designate honors students as people who do not always acknowledge their status as learners. But these students, even though they did not call themselves novices, did show a willingness to take on that role so they could work through critical incidents. Other representations of high-road transfer correlated with the overarching threshold concept of “Identities & Ideologies” (Adler-Kassner and Wardle). The data showed indications of this in students who are becoming comfortable with their identities as academic writers and in students who are writing in the genres of disciplinary fields and discussing how they communicate with “nontechnical people” -- outsiders.

**Analysis of negative transfer results**

In an almost-too-good-to-be-true description of positive transfer results, I indicated that most of the dispositions I coded were generative dispositions. Upon closer examination, however, when I re-examined instances of negative transfer, I did see some evidence of disruptive dispositions. This section will describe experiences where lack of “Self-efficacy” and lack of “Self-regulation” show in the data. It will then describe instances where threshold concepts played a negative part. After that, I will discuss how
“More to Learn” and “Social & Rhetorical” play a part in lifting participants out of negativity.

“Lack of Self-efficacy” and “Lack of Self-regulation”

Martha exhibited an extreme lack of confidence in English 250, based on her experience with a high school teacher who told her she was wrong. Evie blamed teachers for things she didn’t learn in high school, which is a disruptive instantiation of the “Responsibility” disposition and almost prevented her from remembering a resource her high school teacher had taught her to use for citations. Evie and Martha both had such a firm understanding of “performative” (based on past negative experiences) that it dominated much of the other learning they could have experienced and did not allow them to focus on other threshold concepts of value. When they spoke of not being able to write for their teacher in just the right way, they showed the disposition of “Openness and Flexibility” but revealed themselves to be so flexible that they lost ownership of their writing and understanding of what it could accomplish if they took control of it. They both showed some lack of “Self-efficacy” and lack of “Utilizing Resources” in combination with the “Openness and Flexibility.” The combination of these dispositions with the assessment and performative aspects of writing created disruptive situations.

Potentially negative threshold concepts: “Performative,” “Assessment Shapes,” and “Habituated Practice”

Negative transfer, as I have shown, can coincide with the threshold concepts of “Performative,” under “Recognizable,” “Assessment Shapes,” under “Social & Rhetorical,” and “Habituated Practice,” under “Cognitive” (Adler-Kassner and Wardle).
Disposition is a critical factor for properly understanding those threshold concepts with the potential for negative effects, however. Evie and Martha are not the only participants who spoke of needing to write differently for different teachers, but their experiences were more disruptive than those of the others. Brandon, for example, felt as though he had to learn to write differently every year, and his first year as a “freshmore” was one where he encountered an entirely new genre, an ethnography. However, he worked his way through it, learning important concepts like the recursiveness of writing, an indication of the threshold concept “Technology” which is under the overarching category of “Social & Rhetorical” (Adler-Kassner and Wardle). His disposition allowed him to cross the threshold. Altogether, the indications of threshold concepts which do not create positive learning experiences are not very frequent. In the dynamic world of learning and growth, many influences come into play.

For the most part, it seems that disposition is a key ingredient in whether tension between two or more threshold concepts, maybe incompletely understood, impedes or facilitates transfer. Martha’s comments confirm the influence of disposition on success in college. Although she had several positive dispositional traits, in general Martha feels that she had a tough transition into college and that she has had to learn a lot “on my own,” including “how important responsibility and regulating the emotions is . . . I never had to deal with either of those things before.” She, like most of my participants, told me that she recognizes the ISU Honors program as a resource, but at the same time her perception seemed to be that she felt she was on her own. Either the ISU resources were not sufficient for her, or she did not have the “Self-efficacy” to take full advantage of their offerings.
Dynamic dispositions and liminal states

The indications of disruptive dispositions in these data do not paint a very complete picture of my participants. In fact, it is not possible to describe negative transfer situations in these data without also acknowledging the generative dispositions which enabled positive transfer and growing understanding of threshold concepts in the same students. When Evie spoke of positive transfer situations, for example, I showed that they very often coincided with generative dispositional traits. In fact, the very threshold concepts which earlier had impeded her progress became learning opportunities.

“Assessment Is Essential” and “Failure,” both under Adler-Kassner’s “More to Learn” played a positive role in her learning experience when she took advantage of “Utilizing Resources” and took her Women’s Studies rhetorical analysis to the Writing and Media Center. For that assignment, she seems to have burst through the liminal fog in an instantiation of the critical incidents Yancy et al. describe as fruitful ground for high road transfer. This opportunity led her to gain good ground in understanding how to write in such a way that her readers will understand the thoughts in her head—“Reader Reconstructs Meaning,” under “Social & Rhetorical” (Adler-Kassner and Wardle). And in our interview, Evie shows understanding that it is not “right” to base writing on the teacher’s “opinion,” even though she does. Her interview shows her to be in a liminal state of struggle and resistance, a hallmark of threshold concept acquisition. It is not linear.
Analysis of critical instances results

Evie’s example of holding onto and also learning to let go of prior conceptions is an excellent example of the non-linear nature of transfer. Students who encounter critical incidents “can become willing to let go of or relax prior knowledge as they rethink what they have learned, revise their model and/or conception of writing, and write anew. In other words, the setbacks motivated by critical incidents can provide the opportunity for conceptual breakthroughs” (Yancey et al. 120). Evie experienced that; her trip to the Writing and Media Center allowed her to undergo a conceptual breakthrough as well as produce work in alignment with the requirements of the instructor. Critical incidents can prompt critical thinking (Yancey et al. 104). The examples I include in this section are snapshots of students working to overcome what they consider to be challenges. I will first discuss how “Assessment Is Essential” and “Practice” are fitting threshold concepts to emerge from a high school field. I will then show how students can recognize critical instances as growth opportunities. After that I will show that positive transfer occurs as a result of a combination of factors.

High school assessment and practices and familiar challenges

The fact that “Assessment Is Essential” and “Practice,” both under “More to Learn” (Adler-Kassner and Wardle), occur frequently in conjunction with critical incidents makes sense, given the school environment (field), the dispositions of these students to excel, and the successes they had before even matriculating. Teacher and peer feedback played an important role in the incremental growth of writing skills. These students also understand that excellence requires effort. In fact, Tasha complained about
doing well in high school despite the fact that she got very good grades on papers she waited until the last minute to write: “When I could do the homework in the class before and get a 100% on it the next class, and maybe tick off my teacher a little but not have any reparations [sic] other than that, it rewarded me for doing stupid things.” She actually anticipates a critical incident in her college career; she knows that procrastination will cause her problems. She said, “It’s going to take me falling before I realize I need to stand up a lot.”

Some critical incidents the students describe are familiar challenges with which they dealt in high school. Their high school experiences prepared them to be aware of and recognize problematic writing areas and make incremental progress in efforts to better their writing with near transfer practices. For others, their prior experiences from high school and/or their dispositions enabled them to face critical moments with ability even if they were far transfer opportunities and unfamiliar on the surface. Melissa approached a disciplinary proposal by parsing it into recognizable concepts and using a familiar strategy. Evie decided to “get it done” and remembered a resource that worked for APA citations. Individual victories add up to confidence and positive identities.

**Critical incidents can be recognized as growth opportunities**

Students expressed satisfaction and pride in the growth they experienced through critical incidents. After Mitchell made his writing more concise, he said, “I thought it makes so much more sense, and it makes it more clearer [sic]. I’m not just rambling on a bunch of different things. This is concise and exactly what I want to convey.”

“Audience,” under Adler-Kassner and Wardle’s overarching threshold concept of “Social
& Rhetorical” is evident here. Evie almost made a threshold concept-like statement herself when she said “writing a lot doesn’t mean writing right.” This is something she learned through feedback from her professors; acknowledging that “Social & Rhetorical” (Adler-Kassner and Wardle).

John also expressed pride, but not necessarily in his grade. When he approached his topic of the Cuban Missile Crisis for his English 250 research project without a pre-determined opinion, John’s success in acquiring “Knowledge-making,” under Adler-Kassner and Wardles’s overarching category of “Social & Rhetorical” made this project the one he enjoyed most. The process that he followed was a combination of requirements of his teacher (an annotated bibliography consisting of citations and summaries of sources) and procedures he considered important to his own process (a listing of page numbers and important quotes from each source); this shows dispositions of “Responsibility” and “Self-regulation,” which helped him to the threshold of “knowledge.” He said, “Because this was more difficult, I think maybe I’ve done the best writing I’ve ever done with this assignment.” It was difficult because “this topic was a lot of questioning for me . . . it wasn’t as clear cut of an argument to be made, as say, like if I was going to write a paper about stem cell research, whether I think it’s a good or bad thing.” Interestingly, he doesn’t consider the piece to be his best work. But it is clear he considers that he learned and accomplished something important with it. Other people in his class did study stem cell research, but he chose to work on a topic interesting to him because he had learned something about it in another class and wanted to explore it more, which indicates a disposition many of these students share, as I explained earlier, of seeking challenge.
It takes more than disposition

Although dispositions such as “Self-efficacy,” “Responsibility,” and “Self-regulation” are important to students’ abilities to approach new situations with mindsets that will enable them to succeed, it would be too simplistic to assume that dispositions always play the most important role with regard to threshold concepts and transfer. I have shown the tie between the disposition of “Openness and Flexibility” and the threshold concept of “Habituated Practice,” under Adler-Kassner and Wardle’s overarching threshold concept of “Cognitive.” These ties are often evident in situations where students attempt to transform genre knowledge from one field to another. But it takes more than a generative disposition to succeed, as I have shown. The students who are successful in transfer recognize similarities in spite of the differences; the students who are not successful in doing so cannot see the similarities or adapt what they know to the differences. This type of “seeing” is a sophisticated learning challenge.

In some cases, their inability to transfer may be based on a lack of scaffolding or a lack of opportunity to practice. In some cases, it may not be negative transfer at all. Prescott’s integration of music is an example of this. He said,

The only thing high school didn’t prepare me for was putting in examples of work. All of the analyses I did in high school were based off literature, so there weren’t really pictures or graphics to put in; it was all quotes from the book. With [this] term paper, I had to learn how to put in musical examples . . . I couldn’t figure out how to format it so that it worked.”

I initially coded this as negative transfer, because his high school training about inserting quotes seamlessly into a text did not work for him when he had pieces of music
he wanted to use as examples in his text. His dispositional traits led him to find the best solution he could: he just “put all of the examples at the back,” but that was not appropriate for what he was trying to do. This seems to be a lack of disciplinary knowledge, however, not necessarily negative transfer. I do not consider Prescott’s experience to be one of negative transfer; it was more a gap in his knowledge of how to write in his discipline. Nothing was blocking his ability to retrieve prior knowledge, and nothing from his past was preventing him from crossing the boundary. In fact, Perkins and Salomon caution that “there is considerable interpretive latitude about whether to frame some situations as failure to transfer or failure of initial learning” (“Knowledge to Go”).

The snapshots of critical incidents and the themes that emerge throughout this study reinforce the picture of “freshmores” who seek and manage challenge with largely positive approaches. They puzzle over differences between their new college environment and the high school advanced English environment in which they had learned to excel at many skills: prewriting techniques, terminology, stylistic maneuvers, argument structure, analysis, and sometimes “writing to the teacher.” They experience smooth roads when their prior knowledge fits their present circumstances and bumpy roads when they differ. Their “take charge” dispositions enable them to navigate and reflect upon their college experiences in such a way that they can see their own growth and learning. In the following chapter I will discuss implications of these data and suggest avenues for further investigation.
Works Cited


*Naming What We Know*, Edited by Linda Adler-Kassner and Elizabeth Wardle, Utah State U P 2015.


CHAPTER 5. IMPLICATIONS, CONCLUSIONS, AND RECOMMENDATIONS

This project explores indistinct boundaries and intersections: between the fields of high school and college, between what students with college credits know when they enter college and what they are expected to know, and between what those students think their teachers’ expectations will be and what they find their teachers’ expectations actually are. This project explores transfer-enabling abilities and mindsets these young students possess, how they meet challenges, and what critical writing incidents they have encountered. I begin this chapter with some summary of my project’s findings and their implications, including whether English 150 is a class from which these participants would have benefited. I then offer some recommendations and conclusions.

Summary of findings

Traditional first year college students undergo transitional growing pains emotionally, socially, and mentally. With new-found freedoms in living away from home and taking charge of their own schedules, they often experience bumps in the road to self-regulation as they learn how to discipline themselves. At the same time, they encounter rigorous coursework for which they may feel unprepared. “Freshmores,” students who participate in Early College Credit (ECC) programs, are still first year students experiencing these same growing pains even though they may be participating in upper division courses with older students who have already had a chance to “invent the university” (Bartholomae) and pass through some of these transitions. Further, college instructors may make assumptions about the backgrounds/experiences of students in an
upper-level course that may not be true for a first-year student. Emotional, social, and mental challenges during this time of transition influence students’ abilities to transfer prior writing knowledge and skills, particularly when they encounter critical incidents. As I have argued, any study of transfer needs to consider contextual influences and disposition, but freshmen have a particular situation which complicates their transition into college—the indistinct position they inhabit between fields.

Dispositions of the educational fields in which students have been immersed, as indicated by what those fields value, also influence students’ abilities to transfer, particularly when students have found success in those fields. A big disconnect comes, however, when the educational fields of the colleges they enter seem to exhibit different dispositions than the ones they left, such as those governed by disciplinary norms. What was a valued skill for success in high school—for instance, what my participants called “flowery writing”—may not receive high marks in college. But if students transition from high school straight into upper division courses, where do they learn to adapt their writing to these sometimes different expectations? Two foundational courses make up ISUs FYC: English 150 and English 250. Not many students, even those who, like Evie, take three different composition classes while in high school (AP, dual credit, and high school comp), can opt out of English 250, and 250 seems to have eased the writing transition for some. Most of my participants took English 250 when they came to ISU (except for a few whose dual credit courses covered both 150 and 250), which they said helped curb their “flowery” writing. Several were pleased with the abilities they developed to be concise and to find ways to really connect with their audiences; some said it was a waste of time. Those who did not take English 250, such as Kinsey, seem to
have managed, but not every ECC student will. The larger consideration here pertains to the national mindset that FYC can be accomplished before actually coming to college.

Complicated though their transitions may have been, I attribute the seventy-two instances of positive transfer in the data mainly to the generative dispositions of the students. In some cases, the positive influences of their high school experiences, for instance, receiving helpful feedback, enhanced their ability to transfer. In other cases, students seemed to transfer in spite of their high school experiences. Positive transfer does occur without explicit guidance and support (see, for example: Anson; Bergman and Zepernick; Perkins and Salomon; Russell; Yancey, et al.;). In several cases, students did not recognize where their writing process knowledge or ability originated—I consider this indicative of students having successfully crossed a boundary; they assume their writing skills and knowledge to be their own rather than part of some teacher’s formula, and adapt them to new situations. Participants spoke of “their” writing process and what works for them, indicating a disposition I called “Responsibility.” “These processes often take place mostly tacitly, but clearly it helps novices to receive the kind of mentoring that is sensitive to individual knowledge and experience as well as linguistic diversity, identity, and learning styles” (Anson “The Pop” 541). That is what this study argues; when tacit knowledge does not come easily as it seems to have done for many of my participants, and boundaries are not crossed, we need to consider what kind of mentoring is useful and where it should happen.

When considering exactly what students are transferring, it is helpful to focus on threshold concepts which, when once learned, change the way a person writes and views writing. My study, confirming what threshold concept scholars have said, showed a
distinct correlation between threshold concepts and critical incidents in writing experiences. This correlation affirms a key characteristic of threshold concepts: that they don’t come easily or even in a linear fashion. The strong correlation this study shows between generative dispositions and threshold concepts is key to understanding this population of students; they have come to this place with the advantage of dispositions which welcome challenge and find ways, for the most part, to productively work through challenges to achieve the important knowledge the threshold concepts represent. As defined by editors Linda Adler-Kassner and Elizabeth Wardle, the most prevalent threshold concept that appeared in the data was “Prior Experience,” under the category of “Identities & Ideologies,” because every instance of positive transfer called on prior experience. Other common threshold concepts, also as defined by Adler-Kassner and Wardle, included “Genres,” under the category of “Recognizable,” “Assessing Writing,” under the category of “Social & Rhetorical,” and the two threshold concepts that apply to disciplinary writing, which fall under the overarching categories of “Recognizable” and “Identities & Ideologies,” which students need as they enter disciplinary expertise. Genres are, as I have explained, a common site of transfer. Assessment-related language in the data reveals the influence of the educational fields from which the students came. The disciplinary concepts in the data show evidence that students are becoming members of disciplinary fields.

While I stress that threshold concepts are not static categorizations of concepts that can be pinned down exactly, for this study I have been able to discuss the few instances of negative transfer with more nuance because of the lens of threshold concepts. The instances of negative transfer I found were tied closely to disposition. Lack of “Self-
“efficacy” and/or “Self-regulation” co-occurred with “Habitated Practice,” which falls under Adler-Kassner and Wardle’s “Cognitive” and resulted in prior knowledge transferred in an unusable form: reified genre. Lack of “Self-efficacy” and/or “Self-regulation,” co-occurring with “Assessing Writing,” under the category of “Social & Rhetorical” showed evidence of inhibiting students’ abilities to access prior knowledge. The “Performative” threshold concept under the overarching category of “Recognizable” also played a part in negative transfer situations where students were too busy “writing for the teacher” to recognize the writing principles behind what came across as teachers’ opinions. These threshold concepts, while they in some instances achieve positive outcomes, showed their negative potential in these examples.

Looking at transfer through the lens of threshold concepts has enabled me to explore the dual nature of some of these concepts and how variable they are in facilitating or impeding transfer. My disposition lens has added additional complexity to a study that could have devolved into a study of maxims. Looking at disposition has allowed me to illustrate that the “for now” (Naming What We Know xiii) threshold concept definition phrases are fluid—they work differently for different people. I have, through these lenses, been able to show concrete examples of the influence of the dynamic educational fields in which ECC students interact and the porous nature of the fields’ boundaries.

Additionally, when Reiff and Bawarshi studied the influence of genre in transfer, they recommended that transfer scholars expand the scope of research beyond genre. This study does that. Genre plays an important role in these data, but looking at instances of positive and negative transfer with relation to genre co-occuring with disposition and threshold concepts gives us a more complete picture of what is happening.
The implications of this study, which I discuss next, apply to ECC students. However, it is important to realize that their experiences point toward issues important for educators to consider with regard to any FYC student. If a highly-motivated student with a background of advanced English instruction struggles with some issues of transfer, it can be assumed that other students might as well.

**Implications and tough questions**

As I discussed in Chapter One, ECC is a trend that seems here to stay, and therefore tough questions must be asked about the course it claims to replace: what is the role of English 150? What should it be? If FYC is indeed preparation for writing that students will do in the academy, we must ask ourselves what that writing should look like for an FYC student who is still attending high school. Chances are, except in college literature courses, literary analyses will not be that useful. However, as this study shows, analysis as a higher-level thinking skill is useful if it can be extricated from generic expectations and truly transfer. So an additional question this study highlights is how FYC should be taught. It should be taught with the end goal of knowledge transfer, not just transfer credits. My discussion about dual credit and AP programs and outcomes in Chapter One, and my data, show that many high school students gain experience with a variety of genres (some more than others), especially in dual credit and AP Language and Composition courses. The data reveal that students are learning argument, backing up claims with evidence, and that audience needs to be carefully considered—all indications of important writing practices they learned before coming to college. ECC students may not enter college with the writerly maturity that we hope for, but they are exhibiting positive transfer in these areas. They also described important preparation in the pre-
requisite high school courses they took before their ECC courses. However, as I showed in Chapter Four, the data also show that these students struggle with various communication needs. So a final question that this section addresses, given the ECC trend, is where transitional help and teaching for transfer should occur. The answer is that it should occur in multiple places.

Since consideration of transfer cannot ignore contextual influences, maturity issues are of obvious concern, and this study acknowledges but does not fully address those. Maturity is something over which instructors have little control; there is no assessment for maturity as a pre-requisite for bypassing English 150. Howard Tinberg and Jean-Paul Nadeau draw attention to significant contextual and cultural differences between high schools and postsecondary institutions as well as developmental and experiential maturity in the students (713). Age and maturity, as shown by Hansen, et al. and Taczak and Thelin, do make a difference. My barely eighteen-year old participant, Martha, really struggled in her first year of college. I therefore make the following suggestions with the caveat that age and maturity do factor into student success; some freshmores weather the transition better than others, regardless of pedagogy or curricula.

**Does ECC adequately replace 150?**

In accordance with what FYC is supposed to accomplish, one question the results of this study raises is whether these students would have been better served educationally if they had taken English 150 at the university. While Hansen and Yancey et al. rightly point out that more writing practice is always better, especially as students mature, my results suggest that the students who bypass 150 often have the dispositions and the
writing background they need in order to take their writing learning to the next level. Threshold concepts usually require more than one encounter in a gradual process of developing understanding. However, the data show that the process is happening in multiple classes with a foundation that often begins in middle school and high school and serves these students well as they continue their learning experiences in more upper division college courses. Some of the “struggles” these participants pinpoint include weaknesses they began working on in high school and continue to work on in college, such as developing more concise writing, better thesis statements, proper support for opinions, or the ability to know what kind of detail their audience needs in order to understand them.

But an important implication of this study is that, because of feedback many of these students received in high school, they speak of recognizing their writing weaknesses and actively looking for them in their college writing. It is not too much of a stretch to say that these participants have reached the stage of writing scaffolding where they, with their “Responsibility” dispositions, are beginning to take charge of their own learning. They speak of making choices about how to address a writing prompt so the end product will align with what they know to be good writing practices. They speak of learning about writing in their disciplines by reading articles and making choices to align their writing styles with those models. In Chapter Four, I discuss the framework Sadhana Puntambekar and Roland Hubscher developed to describe scaffolding and the consecutively lessening interactions between an expert and a learner. These students, even the ones who exhibit negative transfer, fit within the fourth part of Puntambekar and Hubscher’s framework, where the learner comes within a reasonable range of doing the
task on her/his own. At this point, scaffolding has been sufficient and can be removed (Puntambekar and Hubscher 2-3).

I began this study with potential biases towards the inadequacy of various ECC curricula and the inconsistencies in oversight for ECC programs. But the papers my participants showed me and the writing practices they understood and used were comparable to what I consider a graduate of English 150 should exhibit. When I asked what students felt they were not prepared for when they came to college, I did not find the outcomes from English 150. These students wish they had been better prepared for more advanced writing projects and concerns than those addressed by English 150, such as research skills. These are concerns often more appropriately addressed by advanced writing courses or seminars or by the disciplines. The students exhibit strong writing and some generative dispositions which advanced writing options can build upon productively.

There is more to FYC than writing skills instruction, however. The NCTEs policy brief, “First-Year Writing: What Good Does It Do?” recommends that First Year Writing (FYC or FYW) is important because it fosters habits of mind that lead to growth and success in writing (2). The brief states that the two main goals and roles of FYW are to “strengthen students’ writing abilities” and to “[orient] students to post-secondary study”:

Allowing college credit for writing courses completed while in high school will not help students to fully develop capacities for engagement, persistence, collaboration, reflection, metacognition, flexibility, and ownership that will help them to grow as writers and learners (3).
The paradoxical element of this conversation is that, for AP classes at least, students showed engagement and persistence in the preparatory work they accomplished in the summer before and in the practice in which they engaged outside of their AP classes. So these generative dispositions are actually developed, although maybe not fully, with AP classes and the impetus of the AP test.

However, FYC courses in general, including English 150, perform a valuable function that dual credit and AP programs and outcomes do not contain and my data do not reveal. ECC courses do not help students transition into the academy in the sense that Reiff and Bawarshi and Bazerman suggest and in the spirit with which the English 150 curriculum was designed, which I describe in Chapter One. High school students do not have the opportunity to explore their college campus, reflect upon their place in it, and focus their writing towards genres and with multi-modal skills they will need to understand and use in the disciplines. English 250 offers some of these opportunities. But thinking broadly, perhaps we need to rethink the role of advanced writing courses or create seminars that offer opportunities for advanced students to engage in these reflective activities and practice writing and research on a level that would be useful to them.

When I asked my participants what they wish they’d had more experience with in high school, several of them expressed a desire for better preparation for disciplinary writing or for more disciplinary activities such as collaborative writing. Collaborative writing was a new experience for most of these participants, and one in which many are expected to participate as they learn how to work within their majors. Korrine and others describe how collaborative writing was an additional layer in the learning process as they
worked to become “college” writers. A few participants described collaborative experiences in some high school projects and presentations, but none had experience with collaborative writing.

While a deeper level of disciplinary preparation is not a primary objective of FYC, it underlies the premise of preparing students to write in courses for their majors. Melissa, in speaking about her ECC courses, said “They weren't preparing to write in the work place, they were preparing me to write in college." If her “FYC” experience pointed her towards developing a style of writing she did not find useful in the college classes she took, a bridge course of some kind might be helpful. Additionally, if more and more FYC courses are being taught in high schools, the trend suggests that fewer FYC courses will need to be taught in the colleges. The field of writing studies needs to rethink where we might use our resources to bridge the gap between FYC and the disciplines, particularly if FYC is moving into the high schools.

My study builds on the work of two studies headed by Kristine Hansen that add light to this conversation. In 2006, Hansen, Jennifer Gonzalez, Gary L. Hatch, Suzanne Reeve, Rishard R. Sudweeks, Patricia Esplin, and William S. Bradshaw conducted an study of the writing performance of former AP students in a required general education history course at Brigham Young University (BYU). The authors report on data that “suggest that the first-year composition experience adds significantly to student writing skill, even for those who passed an AP English exam” (484). But does it need to be FYC? An advanced writing course or seminar would also give students a chance for the practice these scholars suggest. In a second study, Hansen, Brian Jackson, Brett C. McInelly, and Dennis Eggett found no statistically significant differences between the writing
performance of students who took DC classes and students who took FYC through other means, including FYC at their university. In spite of their findings, however, they argue that “student maturation, cognitive development, and exposure to more writing instruction” can affect student performance. In suggesting possible options for supporting advanced students, they say,

We realize that requiring more writing of students who already have FYW [First Year Writing] credit would mean that WPAs would have to create appropriately difficult and different writing courses for AP, IB [International Baccalaureate], and DC/CE [Dual Credit/Concurrent Enrollment] students to place into when they come to campus. But taking a challenging writing course early in their college careers, we believe, will strengthen the gains those students have begun to make by taking a challenging path in high school such as AP, IB, or DC/CE (“How Do” 79).

Some colleges are creating such writing courses. The writing program requirements at Florida State University do not allow students to exempt out of what they call a “second-year writing seminar.” It is designed to emphasize genre, research, and reflection, and is considered a “challenging” class suitable for students who would feel that a traditional FYC course is not useful for them. In this way, Florida State addresses the advanced needs of a growing number of students who take ECC in high school and yet need more practice with important writing concepts (Coxwell-Teague).

Regardless of whether we institute advanced college English courses better designed for ECC students, the data from this study suggest some insights and recommendations for both high school and college instructors to better meet the needs of
these students at the indistinct intersection between high school and college. I realize that my results are not generalizable, not even among the thirteen individuals I interviewed, but the perceptions of these students are valuable for the conversations their experiences can promote, both for ECC students and those who take FYC at colleges as part of a traditional college program of study.

Based on the data generated from this study, I next will discuss general recommendations for the high school teacher preparing students to receive early college credit, college teachers who should be preparing to receive ECC students, and college support services. These are not exhaustive but represent key findings from the data.

**What should high school teachers do?**

The data suggest several key areas where high school teachers can make a difference to the experiences of ECC students and, by extension, all college-bound students. These include emphasizing rhetorical flexibility, encouraging reflective practices, and engaging in more research and multi-modal activities.

**Encourage rhetorical flexibility**

Given the instances of prior writing experiences interfering through “Habituation,” which is under Adler-Kassner and Wardle’s overarching category “Cognitive,” or “Genre,” which is under their category of “Recognizable,” what would be helpful for students are high school experiences that focus more on the adaptation of writing for different purposes and audiences. Wardle discusses the importance of introducing students to and involving them in “ill-structured, messy rhetorical problems”
as opposed to “well structured” problems that a test can more easily measure (“Creative Repurposing”). Even if a teacher prefers that students compose in a specific format for a high school assignment, discussions and/or reflective activities that emphasize how it could be adapted in future situations would help students distance themselves from the specific assignment and recognize that writing is flexible. The overarching category of “Social & Rhetorical” applies here in terms of several of its subcategories. Students need experience with threshold concepts that teach them about writing as a knowledge-making activity, and that audience and purpose are crucial elements of any writing. This experience ought to look like the type of scaffolding I discuss in Chapter Four where students receive appropriate but gradually lessening support until they develop the skills and confidence to continue their learning process on their own. Students can then take their “problem-exploring”/“boundary crossing”/“growth mindset” dispositions and face critical incidents with an eye towards how they can grow.

They also need to become conscious of how assessment and evaluation can shape their writing. Certainly their teachers should be. Student writing can be heavily shaped by the “Performative” threshold concept, under Adler-Kassner and Wardle’s “Social & Rhetorical,” in ways that do not lead to positive transfer. It can also be shaped by “Assessment Is Essential,” under “More to Learn” and offer them a chance to grow. Besides the fact that preparing for the AP test enabled these students to think and write quickly, the data show that other types of high school assessment and evaluation practices markedly influenced them. My participants described high school teachers they remember fondly who were strict about writing practices they deemed important, and yet
the students understood and appreciated why they were being strict. As an example, Prescott’s high school teacher taught him how to incorporate quotes in his writing.

    When we first got there, he was very understanding that we had never written in his style before. Getting to his class, we had never had to use quotes in our papers to justify our points before, so he was very lenient at the beginning. As the year progressed, he expected more and more of us, and I was fortunate enough that I actually rose to that challenge. Prescott learned the lesson well enough that he felt great pride in his “conversational style.” His teacher had obviously engaged in the type of scaffolding that allows students to learn with support and then, when the class is over, take that learning to a new context and build upon it.

    How teachers or others assess student writing, what products those assessment processes produce (e.g., grades, comments on papers, decisions about students, responses to peers’ drafts, etc.), and the consequences of those products all can create the very competencies any writing assessment says it measures (Scott and Inoue 29, italics in original).

Prior experiences with writing practices can thus have a positive influence if first, they provide a transformable foundation for writing in multiple future situations, and also if students have the disposition of “Responsibility” and/or “Openness and Flexibility” which allow them to take ownership and to make decisions about when these habituated practices are appropriate.
This study has highlighted the huge influence assessment practices can have on students, and that those influences can be positive or negative. An unseen actant in assessment is power.

Assessment shapes relationships and power between teachers, students, and institutions. Depending on the institutional setting, teachers and students have varying degrees of agency to determine the character of their work, and teachers and students negotiate their relative authority, in part, through the ways students’ writing is evaluated and the consequences associated with those evaluations” (Scott and Inoue 29).

High school teachers who encourage student choice, when possible, are therefore also enabling transfer by allowing students to practice their agency within the supportive environment of the classroom. Perhaps more emphasis on choice in rhetorical flexibility would have helped Martha, who became paralyzed about doing her research project “right.” Evie rejected outlining until it became apparent to her in a later class that it might help her organize “the mess” a long paper had become. Then it became “her” process. Her transcript had several references to agency, indicating that personal choice was important to her. These transfer-enabling dispositional traits align with the growth mindset Carol S. Dwek defines, as I discuss in Chapter Two. Dwek suggests that teachers can encourage the growth mindset by praising processes and hard work rather than products and sheer talent (211). They can even use or refer to Dwek’s book Mindset as a course text to encourage students to develop more growth-oriented attitudes and practices. Incorporating Dwek’s concepts into curricula can produce “a profound impact
of awareness of the mindset concept on not only . . . students but also (and sometimes more importantly) on their parents” (M. Tremmel).

Some of my respondents recognized and described their writing foundation as helpful; these are the students who were able to repurpose the type of writing they did in high school. Susan said, about her high school experience,

I think it just exposed me to a lot of different writing. We had different kinds of writings, and I think that prepared me that way. And just the best way to be a better writer is to write more, so there’s just practicing. We wrote a lot, so that’s definitely helped, too.

Here we see the threshold concept of “Practice, Time, and Effort,” under the overarching category “More to Learn” (Adler-Kassner and Wardle), which her high school experience provided. When asked if she had encountered writing situations in college that were different from the kinds of writing she did in high school, Susan said,

The concepts of things like formatting the papers and writing out intros and body paragraphs and conclusions kind of translates to everything you write, even writing my lab reports. It’s like, you have your abstract, you have your intro, you have your methodology, you have your discussion and conclusion. It’s kind of the same concept there, too.

The disposition of “flexibility” helped her understand the threshold concept of “Genre, under the overarching category of “Recognizable” (Adler-Kassner and Wardle). She mindfully abstracts writing principles from one context and uses them to organize her writing in another—a clear instance of high road transfer.
But others, like Evie, were unable to bridge that gap. Speaking about high school, she said, “It taught me to be a decent writer but not the types of writing I’d have to do [in college].” Evie experienced negative transfer because she liked the “long, lyrical writing” she read in her AP literature class and had a difficult time writing concisely for college expectations, even in an English 250 course. When she was assigned a different kind of writing task in her Women’s Studies class, she said, “I had never done that before because I had never written for any other class than English.” Evie is a student for whom English writing stays in the English classroom. She is also one of the participants who evidenced a very strong impression that she needs to write differently for each teacher because of each teacher’s “opinion.” We do not know for sure how much writing she did or how many different genres she experienced in high school. But this “Performative” threshold concept under Adler-Kassner and Wardle’s overarching category of “Recognizable” combined with her dispositional response to critical incidents prevented her from transferring.

**Engage in reflective practices**

As I have shown, it is also important for teachers to stress the reasons behind their recommendations and requirements in order to encourage mindful abstraction in their students, and it is important to offer them choice within a supportive environment. To develop the mindful abstraction necessary for transfer, as I discussed in Chapter Two, more explicit attention to metacognition would help students understand that the skills they use in analyzing literature, or arguing a position, or synthesizing sources are transferrable to new and different fields. Writing experts such as Anson, Downs and
Wardle, and Yancey et al. “advocate a pedagogical approach that emphasizes rhetorical
dexterity and an ability to confront new writing situations with a high degree of
metacognition or rhetorical awareness” (Anson “Habituated” 78). When Evie described
her high school writing experience as “It taught me to be a decent writer but not the types
of writing I’d have to do,” it reveals a lack of mindful abstraction that could have opened
the door to her understanding of how “decent writing” is useful in many types of writing.
Sadly, as a student in the English Education program, the biggest critical incidents
Korrine faced in college were reflection writing assignments. She had never done that
kind of writing before. Now she realizes how important it can be. Korrine expressly
wished she had the opportunity to reflect in high school:

Thinking and knowing how to analyze your own work; never did that in high
school. You didn't do that. You just wrote it and you wrote it to the best of your
ability. You could go through and edit your own work, but I never knew if it was
... I thought it was well done, and I was happy with the grades I got, but nothing
more than that. You didn't get very highly critiqued because there were so many
papers that the teachers had to read. I wish we would have spent some time, like
after we wrote those big papers, reflecting and having a reflection piece with it.
Just to be able to understand ‘This is what I think I did well on; this is what I
think I did poorly.’ Then having someone like a teacher or a teaching assistant be
like, ‘I agree; this is how you can fix it.’ Going in and having to just evaluate a
paper like this or a presentation. ‘What do you think you did well?’

Other participants remember their teachers helping them think reflectively: “We'd
always been told in that class, ‘This will be helpful. You will need to do something like
this in college”’ (Mitchell). Data like these indicate that metacognitive activities do not always need to be in the form of written reflections; they can be in the form of verbal discussions; as Nowacek describes, “cues that instructors give through written and spoken language that knowledge associated with a prior context might be useful in the new” (12). Some participants remembered high school discussions about whether or not the use of first person would be allowed in college or which citation styles would be important. These are good examples of facilitation of near transfer. But many students did not remember the types of reflective opportunities that would develop the kind of mindful abstraction transfer scholars describe as most useful for far or high road transfer.

Reflection ought to be as much of a main focus in all high school courses, but especially ECC courses, as it is for English 150 and other FYC courses that follow Council of Writing Program Administrators (CWPA) and National Council of Teachers of English (NCTE) guidelines. “The key is to invite students both to articulate and examine the meta-cognitive processes that guide their discursive choices” (Rounsaville at al. 108). Given the inexactness of memory, determining the types of experiences participants had with metacognitive activities in high school was difficult, but I think improvements can be made in this area.

**Incorporate more research projects**

Unlike reflective opportunities, the importance of research projects frequently arose in the data. Several participants chose a research paper as the project they described as being the most influential in preparing them for work they would do in college (Karl, for instance). Lengthy high school research projects definitely made lasting impressions
and seemed valuable. Some participants had more and better experience than others, however. Brandon said his ECC teacher, when she found out that her past students wished they’d had research opportunities in high school, created a “mock research paper” unit for their last month after the AP testing was done:

After the AP test we have almost a full month of school. So our teacher, our AP Lit teacher, keeps in close contact with some of her students throughout the years and one of them came back and she asked ‘What did I not do to help you get through your college English courses?’ And they were going to, like, Northwestern or something, and they said ‘research papers.’ They weren't prepared for at all, coming up with your own question, and what is a good question, and like what the scale of your research should be. And I think I agree that I didn't feel as prepared for that. So the last month after the AP test we spent that time working on kind of a mock research paper. We didn't actually write it, we wrote the intro and did all the background research essentially, but didn't actually write any of the body or conclusion, ya know, just simply starting the process.

This is a creative approach to meeting the needs of students in a curriculum obviously full of other important objectives. The ECC teacher made her reasoning explicit so the students would understand the relevance of the activity, paving the way for some high-road transfer even though her students did not get practice grappling with the size of the research project Brandon encountered in his Honors English 250 course. Some participants who did a large research project in high school wish they’d had more practice with research, even if their AP teachers actually took them on a field trip to the library to
a nearby university as part of the experience (e.g., Martha). Those who learned how to use EBSCO or Google Scholar in high school still did not feel confident in their research abilities even with that preparation. Students described other struggles, such as with organizing information. All this shows that research projects require a sophisticated combination of writing skills and knowledge that needs to be developed in increments, working to achieve the sub-category of “Practice, Time, and Effort” under Adler-Kassner and Wardle’s overarching category of “More To Learn.”

One gap—not necessarily negative transfer—but definitely a gap in knowledge, was obvious in Prescott’s account of a research experience in an upper division music course. He did not do research work in his AP classes. He told me he had a difficult time finding information about his research topic of Gilbert and Sullivan for the music course. He found biographical information, but not the information he was looking for, which was an analysis of their music and of how other composers have used Gilbert and Sullivan’s style to create their own. He said, “Nobody did any sort of that analysis, so I had to go and try to do it all on my own.” His dispositions of “Self-efficacy” allowed him to focus on the works of Gilbert and Sullivan and create the text of the research paper with his own thoughts. In questioning him further, I found that he went to the library looking in books first for this information. Revealing a process that sounded like trial and error (and once checking in with a librarian), he said, “In the end, I ended up checking a lot of stuff online because I realized I needed more.” He found one journal article and said “I just may not have been looking in the right spot.” “Utilizing Resources” only got him so far in accomplishing his goal; he needed help in knowing where to look for the sources he required. It was a subject with which his music professor was not familiar, and
although the instructor was helpful with other feedback for his disciplinary writing, Prescott was on his own for finding sources. His take-charge attitude and his ability to think critically and write well succeeded wonderfully—he revised the paper according to his professor’s feedback, submitted it to a contest his professor recommended, and won the contest. Prescott is an example of ECC students who do well with their writing projects despite knowledge gaps, but students without his sense of “Self-efficacy” might not do as well.

Other participants expressed a desire for more experience in multi-modal skills such as group work, speeches, or effectively introducing and incorporating visuals into a text. The core teaching standards for college and career readiness in speaking and listening for the state of Iowa encourage teachers of grades 6-12 to “integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally,” and “make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations” (63). These standards are part of a Common Core Standards document published in 2016 by the Iowa Department of Education, which describes their importance as follows:

As specified by CCSSO [Council of Chief State School Officers] and NGA [National Governors Association], the Standards are (1) research and evidence based, (2) aligned with college and work expectations, (3) rigorous, and (4) internationally benchmarked. A particular standard was included in the document only when the best available evidence indicated that its mastery was essential for college and career readiness in a twenty-first century, globally competitive society. (3)
From this and other governing guidelines, and the results of my study, it is incumbent upon high school teachers to incorporate multi-modal objectives into their lessons. The AP English Language and Composition exam, which I discussed in Chapter One, has added a small visual element in recognition of the importance of multi-modality in contemporary communicative practices. Perhaps ECC courses do not have room to do much, but certainly there could be a better emphasis on multi-modality in earlier language arts classes.

Certainly, high school teachers have a heavy load of responsibilities in satisfying ever-increasing criteria placed upon them by institutions, policy makers, administrators, parents, and students. Addressing individual needs of hundreds of students every day in creative, thorough, and pedagogically meaningful ways is not easy. I do not claim that my recommendations are not being implemented at all or that they are the most important objectives teachers should have. In fact, my participants’ successes are testimony to good preparation they experienced in high school. I do feel, though, and these data imply, that secondary teachers ought to understand transfer, what enables it, and what constrains it so they can take advantage of moments where it can be encouraged. Additionally, these data show specific learning opportunities with which my participants would have appreciated more experience in their high school careers. This study sheds light on important considerations of how ECC courses can better fulfill the purposes of the FYC course(s) they replace.
What should colleges do?

Of course, high school advanced English courses only form one end of the bridge these students cross. I now turn to the other side of the institutional divide and make some recommendations for colleges. The responsibility and opportunity for assisting the transition of new college students rests on a number of supports, and a full consideration of transitional support is beyond the scope of this study. The focus here will be those areas suggested by this study’s data. These include the need for students to do more substantial writing projects in college, with more explicit guidance from instructors, including proven practices like peer feedback and revision.

Provide more writing and attention to effective writing practices

More writing in general, for which Writing Across the Curriculum (WAC) and Writing in the Disciplines (WID) programs advocate, is crucial to the continuing development of ECC writers. It serves the best interests of the disciplines, in many ways, to build on the preparation students have received in foundational courses. Students who learn to think “on paper” as they process disciplinary knowledge and learn to contribute to disciplinary conversations become valuable members of their fields. ISU, in its “Communication Proficiency Policy” encourages communication instruction and practice throughout the undergraduate experience, “both in communication courses and in courses in the student’s major,” and state that “faculty across the university share responsibility for the student’s progress in communication practices” (see Appendix F for full policy). This document, agreed upon by the ISU Faculty Senate in about 2005, was a beginning step in a Communication Across the Curriculum (CAC) initiative (Blakely). Despite
those recommendations, Kinsey, who was a graduating senior, said “I think the longest paper I've ever had to write here was I think five, maybe ten [pages]. That's nothin’- laughably short.” At the time of our interview she was facing the task of writing an article to submit for publication in her field, Dairy Science. According to my participants, writing assignments beyond courses other than English 250 were generally not substantial or frequent, even in English literature, rhetoric, or technical writing courses. They spoke of how reading literature in their fields or seeing models helped them understand how to conform their writing to fit the genres of their fields, but most did not have a chance to practice large writing projects unless they were working on a capstone project. These data suggest that even universities with CAC initiatives in place may not have full implementation of the best practices the initiatives are designed to inspire.

Many times, subject matter experts assume that writing is a skill that can be “picked up” automatically. Indeed, Kinsey expects that she will learn what she needs from models of Dairy Science academic articles—she has the dispositions of “Utilizing Resources” and “Self-efficacy.” Not all students do. Even in English departments, literature teachers do not always focus on the hows of writing. In 2009, Laura Wilder and Joanna Wolfe said, “Currently, tacit approaches to teaching literary analysis appear to dominate the curriculum. Observational studies of literature courses from high school to graduate school indicate that the methods for writing literary analysis (the primary genre assignment in these classes) are generally kept implicit” 173). But the contributors to Naming What We Know identify thirty-seven key threshold concepts that are important for writers to develop—these cannot all be implicit learning experiences. Appropriate writing support “moves well beyond the usual trial-and-error model that obtains in most
academic writing” (Anson “The Pop” 541). Misperceptions about writing abound because people think that writing can be learned in one or two foundational courses, in high school or out of high school, and then checked off the educational to-do list.

My respondents, for the most part, substantiated Wardle’s and Reiff and Bawarshi’s claims that instructors in the disciplines often do not seem to care about writing. Prescott’s instructor gave him explicit feedback about the citations he needed to use in his academic music field, and why that was important. But others, such as Evie, did not receive that kind of explicit scaffolding. She said,

Yeah, they didn’t care about the writing process at all. They didn’t want to see if someone had checked over my work they just wanted me to ... They actually wanted to read what I was writing, which was weird. Which makes you really think about your grammar and stuff like that. . . he [the high school teacher} was also interested in the process of getting there, reading the book, what you thought, understanding the book.

Disciplinary instructors have their own content to teach and might struggle with spending classroom time focusing on students’ writing practices as well. In fact, they may be uncomfortable with the idea of teaching writing. But if high school teachers build one side of the bridge with forward-reaching metacognitive activities, and students do not need to call upon prior knowledge, it stays in the high school and is considered irrelevant for disciplinary work. As Wardle suggests, the new field they join needs to call for this type of seeking, or transfer does not happen (“Understanding” 82).

Besides writing more, certain practices writing scholars know to be important are not addressed in many college courses. The impression students may receive, then, is that
that these practices are not important or necessary after general writing classes are done. For example, my participants described participating in peer feedback in high school and in English 250 but not in other college classes. However, peer review can be a valuable tool in college, particularly when preparing people for collaborative workplaces or academic processes, and in knowing that “Social & Rhetorical” (Adler-Kassner and Wardle). In fact, Brandon appreciated what his high school peer review experiences did for him. He said it helped him “push the thought boundaries of rhetorical analysis.”

Revision was another practice in which my participants did not participate in college (outside of English 250), again in alignment with what Wardle and Reiff and Bawarshi have found.

I really learned how to re-draft, or something, which is a skill that I applied then again senior year [in high school] and, I think, freshman year here. Since then I haven't really taken a hard English class. I feel like I don't do that as well anymore. I know that I'm capable of doing it. It's like I'm capable, but, like, I also know that I don't necessarily need to do it to pass the kind of writing that I'm still doing today. (Mitchell)

Here is a student who understands the threshold concepts of “Practice, Time, and Effort,” and “Revision” under the overarching category of Adler-Kassner and Wardle’s “More to Learn,” but he is not seeing the opportunity for that kind of practice. He can tell that his skills are not as sharp now and implies that the writing he does for his upper division college classes is not the same quality as what he did in high school.

College teachers should pick up where ECC teachers leave off, recognizing that students may need guidance in specific disciplinary norms that may seem implicit to
them but not to the students. Prescott’s example is a great example of a disciplinary teacher taking time to help a student learn how to also incorporate music into a written document and therefore continue a scaffolding program begun in a high school program that emphasized incorporating textual quotes. Prescott had advanced writing skills and was ready for more disciplinary guidance, and his instructor offered him just the right support. This example is not complete without recognizing the disposition Prescott had to seek help and to learn from someone who expected revision, so this successful scaffolding story is a combination of generative disposition and threshold concepts.

In English 150, students learn how to incorporate a visual into a text; this instruction might have helped Prescott since he had never worked with visuals in a text before. Still, it was helpful for him to receive explicit instruction from his professor. Prescott’s personal critical incident highlights the role a college teacher can play in facilitating transfer by helping students draw mindful connections to prior knowledge.

**Provide more explicit prompts, feedback, and rubrics**

College instructors can also ease transitional frustrations by realizing the importance to ECC students of more explicit assignment prompts and rubrics. Several respondents spoke of critical incidents in connection with vague prompts. Karl said, “I often felt as if the [college] teacher’s advice was generally ‘Just write it good’ . . . so it wasn’t as much specific advice and just kind of ‘try your best,’ which upset me. I know that’s part of the transition from high school to college. I can do it in other classes.” Sometimes the assignments did not have extensive detail because they were low stakes assignments, like Evie’s one-page memoir. But these inexperienced, highly motivated
students need more assurances—they may enter college feeling that all assignments are high stakes assignments, especially if the memoir they wrote in high school was a bigger project. By the time traditional students reach upper division courses, some have a sense about which assignments require more time and effort. But “freshmores” may not.

The lack of rubrics or feedback, until the writing project was done and assessed for a grade, also created critical incidents for some participants. They struggled to decide what the teacher was requiring. “Assessment Is Essential” under the overarching category of “More to Learn” (Adler-Kassner and Wardle) is an important tool college teachers can use to enhance learning as well as reduce frustration. I do not think ECC students are the only ones who would benefit from more normative feedback from disciplinary professors, since even upper division students inhabit a number of different positions on disciplinary scaffolds. Furthermore, college teachers as well as secondary teachers, can help students to develop growth mindsets by giving in-process feedback (Dwek 212). In Wardle’s seminal longitudinal study of students who had moved past FYC into the disciplines she found that, in order to be successful in university writing experiences, students needed “teacher feedback [at least in the first few years], peer interaction [usually informal], and previous experience reading and writing in the same field” (80). These are all context-specific types of support and seem even more important for students who may be at a lower maturational level.

**Provide effective support services**

The burden of assisting students in their transition to college does not rest entirely upon the shoulders of the instructors, of course. As shown in Chapter Four, a number of
participants who faced a critical incident in the form of an unfamiliar assignment, or uncertainty about how to write something, called upon their disposition of “Utilizing Resources” and found assistance. Although most of these participants have the disposition of “Responsibility” and take ownership of their learning as they try to face challenges “on my own,” the ones who reached out for help found resources available in the institutional field as well as in their personal, family, and extra-curricular fields. Evie went to the Writing and Media Center for tutoring; Prescott talked to a librarian. Several mentioned “Destination Iowa State” (DIS) as a helpful transitional experience. DIS is a program ISU runs prior to the start of every semester. It is “designed to ease the transition to college for new Iowa State students” by introducing new students to campus and its resources (“Destination Iowa State”). Some participants attributed their decision to ask a professor a question because DIS advisers encouraged them to do that. As I have argued, a student’s ability to transfer is impacted by contextual influences. These resources provide support in ways that allow transfer to happen more readily.

These resources are available to all ISU students. My participants came from a pool of honors students at ISU who have additional resources available to them to help with the jump to more upper-division coursework, as I describe in Chapter Three. The honors experience provides a good foundation for this group of students in the form of a supportive community and introduction to campus resources, as well as opportunities to engage in more challenging experiences like internships. Through an introductory honors seminar course they take during their first year, they interact in a small group with peer mentors and discuss a book chosen to encourage good discussion about topics such as connecting passions to professions or finding personal meaning in their educational
experiences. Unless honors students come to college with credit for English 250 as well as English 150, they take an English 250 Honors course. These experiences with small groups of like-minded students, as well as the opportunity to live on an honors floor in the dorms, made a difference to several of my participants in their transition to college life. With this support and their own resourcefulness, they told me they felt well-prepared for college life. Martha said she appreciates the honors program “because it’s more guided and they’re more geared towards advanced students. They already know what some of the problems that are specific to those types of students are going to be.” When she failed her English 250 Honors course, she was given the option to retake it and stay in the honors program. In fact, she was told, “It happens to people all the time, and you will recover from it, you'll be fine.” At the time of our interview, she was taking advantage of “Utilizing Resources” and attending counseling sessions to deal with her anxieties.

The disposition area where I saw the biggest struggle relating to transition into college writing (and this is typical of many first-year students) was “Self-regulation.” Several participants expressed a problem with procrastination; some even humorously described it as a step in their writing process. The students who talked about procrastination know that it can create problems for them; in Chapter Four, I quoted Tasha saying it was “unfortunate” that she got good grades in high school because she received positive consequences for doing assignments at the last minute. Putting humor aside, a lack of “Self-regulation” created critical incidents that were very much tied to high school experiences that were very externally regulated. As an example, several participants described “checkpoints” high school teachers would set for them to help them pace larger assignments. The quote, “In AP English, my teacher set out good
guidelines for our work, like instructions clearly telling us what we needed to do. And so I would write a paper that was good and, like, organized—well written” says a lot about Martha’s expectations for how an assignment should be set up and communicated and echoes what many participants expressed about a significant difference between high school and college experiences. Most college teachers they described expected them to pace themselves. As first-year college students taking charge of their own schedules, they expressed challenges with learning how to pace themselves. Perhaps they need scaffolding with their “Self-regulation.” The ISU Academic Success Center offers handouts and PowerPoint presentations with time management techniques, but students need to know to look for them. Perhaps more needs to be done in the honors seminar, particularly since honors students often take heavy loads of coursework, not realizing how rigorous it will be.

How can high schools and colleges work together to build bridges?

Based on needs implied by this study, I have offered suggestions and recommendations for high school and college teachers and administrators on both sides of the institutional divide. Of course, each individual situation is different; students respond differently based on personal dispositions and how those influence their ability to transfer. Still, the practices I have suggested here make sense for educators seeking to facilitate learning. Individual educators can only accomplish so much, however. We must consider the dispositions of the larger fields. On a larger scale, inter-institutional collaboration is a crucial consideration for actually building the bridge “freshmores” and all first-year college students need. First, I must acknowledge the political complications
and exigencies inherent in such collaborations dependent on local, state, and national situations. Exploring these situations is beyond the scope of this project. But they play an overwhelming role in determining how and what high school teachers teach. Wardle says:

The rules governing what high school teachers must teach, and how they must teach it, seem to become more stringent every year. The desire of governmental officials to legislate and moderate something they know little to nothing about results in our inability to act out of our own research-based knowledge about what writing is, how writing works, and how to effectively teach writing so that students can effectively use what they know across widely varied contexts.

(“Easing” 3)

Local, state, and national situations also play a large role in collaborations and conversations between institutions. However, as Colin Charlton and Andrew Hollinger ask, “Why do we so often pretend that students in high school and college are wildly different in personality, ability, or emotion? We are all trying to reach, breach, and teach the same students” (60). And Robert Tremmel says,

Even though English educators and writing program administrators (WPAs) have been engaged in many of the same disciplinary labors for over half a century, and even though they have had significant points of contact with each other in the past, they currently live separate academic lives, fenced off from each other in largely separate bureaucratic compounds. (1)

Tremmel goes on to ask, “Why haven’t we thought about forming an alliance based on our consillient actions and needs in order to build a broader, more coherent, mutually supportive academic and institutional base for ourselves?” (2). Taczk and Thelin suggest
that college” instructors could benefit from more exposure to K-12 research and translate or transform best practices for this population into the college classroom” (21). Lack of motivation or inability to recognize the importance of opening doors of conversation between and among institutions are dispositional traits that needs to change in the field of writing studies.

These are not easy conversations to initiate or questions to answer. But to truly support student writers’ transitions between high school and college, questions such as these must be considered. I established in Chapter One the relationship between high schools and the colleges which administer their dual-credit enrollment criteria and curricula. The National Alliance of Concurrent Enrollment Partnerships (NACEP) seeks to standardize the alignment between high school and college offerings of similar courses. However, membership in the alliance is voluntary. This study provides impetus for requiring or at least encouraging more participation in NACEP. I also described the College Board’s curriculum and outcomes for AP English courses. But more than one participant told me that their AP English Language and Composition course readings were in American literature (Their AP Literature and Composition readings were British literature or poetry.) Literature is a broad field to cover for the AP Literature test, and some institutions apparently address that challenge by splitting up the literature reading into two different AP courses. These data show that even though the College Board has become much more clear about aligning the AP Language and Composition curriculum with WPA Outcomes for FYC, gaps remain. Inconsistencies in oversight and local interpretations of criteria create challenges for the college teachers who, because of articulation agreements and test scores, must accept students as proficient in FYC
outcomes. This study highlights the need for more professional development for high
school teachers who teach ECC courses. The National Writing Project (NWP) is a good
example of an effective space for professional development of high school teachers
through training programs run by anchor colleges. Its nearly two-hundred local
embodiments are responsive to local needs and create teacher leaders in local
communities (“About NWP”). Charlton and Hollinger say, “Many of us can talk about
the roles of audience and purpose and form in helping students make informed rhetorical
choices, but our students and teachers don’t always know how to map out the journey.
We are suffering the assumption of application” (“Why We Should Talk” 76).

Other connections between secondary and post-secondary institutions should be
developed more fully. The state of Iowa has an articulation agreement that requires four-
year Regent institutions to accept transfer credits from community colleges. Currently
articulation conferences that discuss course content only happen once a year, and the
discipline for that discussion varies—English course content gets discussed infrequently
between institutions within the articulation agreement (Liason Advisory). Articulation
conferences need to provide space to more frequently address the consistency of the
expectations of English instructors between institutions. As Howard Tinberg says,
although difficult, it can be done, and it has been done in Massachusetts. He asserts that

Such conversations do not occur on a departmental or disciplinary level often
enough. I would like to see the development of consortia established by two-and
four-year institutions to reach a consensus about the level of writing skills needed
to succeed in college and beyond. (“Use the Classroom”)
As important as transfer is to student learning, some of those conversations need to be about transfer. The results of my pilot study, as described in Chapter Three, suggest that educators on all educational levels need to be mindful of the phenomenon of transfer and with the types of learning activities that facilitate it. Attention to threshold concepts with potential for negative consequences would be useful, for instance.

No one-size-fits all approach works, however. Recently, various instantiations of Writing about Writing (WAW) (see, for example, Wardle and Downs) and Teaching for Transfer (TRT) (see, for example, Yancy et al.) approaches are gaining traction as transfer-facilitating pedagogies where students focus on the subject of writing rather than any other theme in FYC. Students in these courses are showing remarkable gains in understanding key threshold concepts. Adopters are finding, however, that these approaches are not working as well for populations who are not well-prepared for college or who have job and family obligations that conflict with school (Yancey et al 146). Still, all populations will benefit from teachers who understand the importance of transfer and how to facilitate it. Educators need to engage in a bit of high-road transfer themselves, taking the threshold concepts Naming What We Know offers and situating them in a unique field.

Other promising practices do exist among educators responding to local, contextual needs. Fertile grounds for collaborative efforts have been found in writing centers, for instance. David Elder, Hannah Hecht, and Mallory Sea describe their experiences facilitating inservice/professional development workshops between local high schools and post-secondary institutions. They build their work on successful collaborations between university and high school writing centers in other institutions:
for example, the Stanford Writing center and its connections between university and local high school writing centers, and the Salt Lake City Community College, with its community writing center that works with refugees, other underserved populations, and high school students. Scholars such as Rebecca Nowacek have described writing centers as fruitful grounds for transfer because they take writing out of individual classrooms.

Journals are another avenue of collaboration specific to the intersection between high school and college. *Crosspol: A Journal of Transitions for High School and College Writing Teachers*, an online journal begun in 2014, promises “practical and theoretical conversations between high school and college writing teachers, a group we see engaging in more crossover activities that are productively collaborative, inventive, and synchronized.” Crosspol’s managing editors and founders, Andrew Hollinger and Colin Charlton, call it a “space for discussion, invention, and experimentation” and its contributors call for a range of action from advocacy movements to “monthly reading and discussion group[s] composed of any willing stakeholders” (“A Pile” 59).

Each of these suggestions has merit for local circumstances in the ever-shifting fields students inhabit. They suggest a wide range of possibilities for making the educational experience of ECC students, and by extension, all FYC students, beneficial and growth-promoting, and more possibilities exist. In combination, if these practices intersect, they can influence ECC students’ experiences in beneficial ways.

**Conclusions and avenues for future research**

Charlton and Hollinger call for more student voices as well as articulation efforts, recognizing the need for attention to individual students in individual contexts. This study
does that. The more student voices we can engage in these conversations, the better. For instance, a sticky question is how to encourage generative dispositions that enable students to work their way through negative transfer situations. Certainly finding ways to offer feedback that encourage the growth mindset (Dwek) I discussed in Chapter Two can facilitate generative dispositions. But every critical incident and every liminal experience is unique. Grounded theory allows individual voices to arise from the data, and situational analysis allows all actors and actants in situations to be considered. With each collection of data, we receive important insights that help us better theorize practices that help individual students where they are. In this final section, I suggest areas where more research would be especially helpful.

**More focused sites and participants**

First, because of my time and location constraints, this study is fairly broad. My participants represented a range of ECC students with a range of backgrounds, representing some of the diversity of the ISU student body. It is limiting, however, to combine dual credit and AP English courses in one study—each has strengths and limitations with regard to writing transfer. I chose to combine them because in some situations, students who take AP classes get dual credit for those same classes. Considered more broadly, the many different locations where dual credit courses are taught makes them hard to compare with AP courses, which are usually taught in high schools to only high school students. I found that the dual credit composition courses often align well with FYC. Future studies could focus on students who take dual credit
courses on a community college campus, perhaps as a comparison of students who receive dual credit but take the course in a high school setting.

Further, it is limiting to combine AP English Literature and Composition courses with AP English Language and Composition courses. In several cases, the AP English Language and Composition courses my participants took aligned better with FYC. So separate investigations of dual credit, AP Literature and Composition, and AP Language and Composition might provide further light on how to improve transfer for those students.

Also, of my thirteen participants, three came from small (under 6500 population) towns. In small towns, resources are not as plentiful; in small schools, fewer teachers have graduate training and fewer students are available to fill advanced courses. So, rural areas have particular challenges with regard to ECC and merit a more focused look as well. Additionally, the literature suggests that ECC students often come from households where parents have attended college; a study of ECC students who are first-generation college students would offer insight into the needs of those students. My data included only one student whose father did not go to college. One goal of dual credit courses is to offer a supportive transition to students who do not have the cultural capital or family tradition to understand how to perform well in college. These considerations for further research offer a more nuanced look at the contexts that influence transfer.

**Secondary teacher preparation and decisions**

Additionally, it would be beneficial to study teachers of ECC courses to see what skills and knowledge they draw upon when teaching—do they draw upon their English
Education methods courses, or do they fall back on teachings they received in high school? It would be useful to find out why and when they adapt writing assignments to be formulaic, how those decisions aid in scaffolding, and what the results are. It would also be illuminating to find out how widely transfer theory is taught in methods courses and how secondary teachers are implementing what they have learned about transfer.

**Discourse-based and longitudinal studies**

Of course, making a more thorough examination of the papers students choose to share in a similarly structured study as this would be valuable. In this study, their papers functioned most often as a memory trigger in our conversations but could have yielded interesting data through a more precise comparison with the transcripts. A longitudinal study of students and a comparison of their writing over the course of several years is another avenue for future research. Secondary students who are on track to take ECC classes can be studied to see what practices they are learning are most beneficial to transfer into their ECC classes. Students who take ECC and go to college can also be studied over the course of their college careers. Pinpointing areas of critical incidents and how those are worked through (or not) and how writing maturity grows would be valuable, especially with regard to the liminal nature of threshold concepts and the dynamic qualities of dispositions. Studies could show students’ reactions to different teachers’ prompts and feedback and when they make crucial decisions about their writing processes.
Concluding thoughts

These are a few suggestions for scholars who want to better understand the complicated nature of writing transfer in the complicated lives of students. Threshold concepts build on the most recent work of transfer scholars, giving us names for core learning opportunities. Intersecting the study of threshold concepts with the study of dispositions in individuals and in fields, which has never been done before, gives us a contextual dimension for investigating the transfer of those concepts and how it happens in the complex combination of physical, mental, and emotional situations students inhabit. This study adds a new twist to transfer research and combines several of Devet’s research categories which I detailed in Chapter Two. By looking at intersecting categories and theories, this method adds insight to the conversation about transfer and potential for future studies which might also employ this method.

Through listening to the participants in this study, I have heard how they draw on prior experiences, both consciously and unconsciously, to face the challenge of new situations. I have heard how they approach critical moments with take-charge attitudes. They revealed some good preparation in their high school careers. In relaying to me that they feel well prepared for their college experience, they show the gain that generative dispositions can achieve in combination with good instruction.

I have also heard, embedded in their narratives of success, about times when they struggled in an intricate web of prior experience, uncertainty in a new field, lack of confidence, and competing voices. These are inspiring accounts of students who feel as though they are successfully navigating their college experiences in spite of their struggles. Their accounts can further our institutional and inter-institutional conversations
about how to help other students, perhaps those with less generative dispositions or less adequate preparation, achieve success in the often-confusing intersections of indistinct boundaries.

Works Cited


Anson, Chris M. “Habituated Practice Can Lead to Entrenchment.” Naming What We Know, Edited by Linda Adler-Kassner and Elizabeth Wardle, Utah State U P, 2015


Blakely, Barbara. Email to the author, 19 April 2017.

Charlton, Colin, and Andrew Hollinger. “A Pile of Stuff on a Table and Reimagining Distance.” Crosspol, vol 1, no. 1, 2014, pp. 57-62.


---. “How Do Dual Credit Students Perform on College Writing Tasks After They Arrive on Campus? Empirical Data from a Large-Scale Study.” *Writing Program Administration*, vol. 38, no. 2, Spring 2015 56-92.


“Literacy.” *Iowa Core*. Iowa.gov, 2016, iowacore.gov/iowa-core/subject/literacy

*Naming What We Know*, edited by Adler-Kassner, Linda and Elizabeth Wardle, Utah State University Press, 2015.


Tremmel, Michelle. Email to the author, 5 April 2017.


APPENDIX A: RECRUITMENT EMAIL

Hello,

Did your high school English class or AP credit allow you to pass English 150? If so, I’d love to talk to you! I’m conducting a study of students whose high school writing classes were college-level writing classes. I want to know how well prepared you feel for the writing you are doing at ISU.

If you choose to participate in my study, I’ll ask that you sign an informed consent document and then ask you to take part in an audio-recorded interview with me. If possible, I’ll ask you to bring to the interview a writing assignment and prompt you have done for a class at ISU. I am not evaluating your writing ability; I want to discuss with you writing tasks you think are easy or challenging and why you think they are.

As a token of my appreciation you may expect to receive a $10 Caribou gift card.

Please reply individually to this email if you have questions about this study or if you would like to participate. The purpose of this study is to help high school instructors know how to best prepare students for college, and to help college instructors know what to expect from students who do not have to take English 150.

Thank you,
Kathy Rose
RPC PhD student
APPENDIX B: SURVEY OF POTENTIAL STUDY PARTICIPANTS

(sent through Survey Monkey)

1. If you have chosen a major, what is it?

2. How many credit hours did you enter ISU with?

3. What year are you at ISU? Please do not count college hours you earned as a high school student.
   a. First year
   b. Second year
   c. Third year
   d. Fourth year
   e. Fifth year
   f. Other (please specify)

4. What type of advanced English class(es) did you take in high school? (please check all that apply)
   a. AP English Literature and Composition (often just called “AP Lit”)
   b. AP English Language and Composition
   c. Dual Credit Composition taken on a high school campus
   d. Online Dual Credit Composition
   e. Dual Credit Composition taken on a community college campus
   f. International Baccalaureate
   g. Other (please specify)

5. Did at least one of your parents complete college?
   a. Yes
   b. No
   c. Other (please specify)

6. Do you have any siblings who completed college?
   a. Yes
   b. No
   c. Other (please specify)

7. How would you describe your ethnicity?
8. How would you describe your family’s social class?
   a. Upper class
   b. Upper middle class
   c. Middle class
   d. Lower middle class
   e. Lower class
   f. Other (please specify)

9. What high school (name and location) did you attend?

10. Are you willing to consent to a personal interview where you will answer questions about your high school and college writing experiences? I will also ask you to bring in and talk about a writing assignment you are doing or have done for a class at ISU. The interview could take up to 60-90 minutes.
   a. Yes
   b. No
   c. Other (please specify)
APPENDIX C: EXAMPLE OF EMAIL PROMPT

For the interviews, plan on between 60-90 minutes. I plan to record them with an audio recorder, so let me know if you have any concerns about that. I just want to make sure I get all your words and ideas! Please choose a writing assignment you've done for any class at the University that you feel like talking about. Bring in your assignment, plus whatever prompt, rubric, peer feedback, drafts, etc. you might have produced in conjunction with the assignment. If you feel like the skills and knowledge you learned in high school helped you navigate this assignment, that would be a good choice. If you feel like the skills and knowledge you learned in high school did not help you, that would also be a good choice.

If your assignment is in digital form, that's great. I'll be asking you to send me a copy so I can refer back to it. If your assignment is in a hard copy, that's great, too. I can scan it. I will ask you questions about your thought process as you approached this assignment and as you ran into challenges and made decisions about what to do. I'm not judging your writing! I'm just interested in what went through your mind as you created it.

Thanks so much, and I look forward to hearing from you!
Kathy
APPENDIX D: INITIAL INTERVIEW QUESTIONS

1. What high school did you attend?
2. What advanced class(es) did you take in high school?
3. What advanced English class(es) did you take in high school?
4. Do you consider yourself to be a good writer?
5. What role did reflection play in your classes?
6. How would you describe your transition into college?
7. Describe a memorable writing assignment you did in high school.
8. Can you think of a writing assignment you did in high school that has been useful to you in a class at ISU?

For the discourse-based portion of the interview, we will examine the writing assignment and prompt you brought and talk about the process you went through as you wrote.

1. What was your thought process as you began this project?
2. What (if anything) about this assignment was easy?
3. What (if anything) about this assignment was difficult?
4. When you faced a difficult part of this assignment, what did you do to overcome the difficulty?
5. Was this project like anything you had done before?
6. How did you feel about the finished product?
7. How did your teacher feel about the finished product?
8. In what ways do you think your high school experience prepared you for what you would write at ISU?
9. In what ways do you think it didn’t?
10. What (if anything) have you had to learn?
11. What (if anything) have you had to unlearn?

Would you be willing to discuss a future writing assignment with me?
APPENDIX E: FULL LIST OF INITIAL CODES THAT EMERGED IN THE DATA BEFORE REDUCTION

Advantage of discourse-based interview
Agency
AP test
Blurring of school class boundaries
Critical thinking
Difference between hs and college
Disposition—attribution—ownership
Disposition—comfortable with age
Disposition—habits of mind—creativity
Disposition—habits of mind—engagement
Disposition—habits of mind—flexibility
Disposition—habits of mind—openness
Disposition—habits of mind—persistence
Disposition—I know myself
Disposition—motivation
Disposition—resources
Disposition—self-efficacy
Disposition—self-regulation
Disposition—value
Disposition—wants to live up to expectations
Formula
I was not prepared for
Intersection disposition/threshold concepts
Intersection disposition/transfer
Intersection— transfer/threshold concepts
Intersection + transfer/threshold concepts
Intersection negative transfer/disposition
Intersection struggle/threshold concepts
Intersection struggle/disposition
Literature
Literature—benefits
Literature—drawbacks
Prior knowledge—no recognition
Process
Purpose for taking ECC
Reflections in hs
Small town impressions
Struggle
Struggle—conciseness
Struggle—critical incident in hs
Struggle—critical thinking
Threshold concept—assessment is essential
Threshold concept—assessment shapes
Threshold concept—audience awareness
Threshold concept—disciplinarity
Threshold concept—identity
Threshold concept—knowledge-making
Threshold concept—metacognition is not cognition
Threshold concept—practice, time, effort
Threshold concept—prior experience
Threshold concept—reader reconstructs
Threshold concept—revision
Threshold concept—text meaning from texts
Threshold concept—writing is a cognitive activity
Threshold concept—writing is a social activity
Threshold concept—writing is not natural
Threshold concept—writing is performative
Threshold concept—writing mediates activity
Threshold concept—writing represents the world
Transfer—connection
Transfer—negative
Transfer—positive
Transition
Transition—college requires effort
Transition—dorm
Transition—resources
Basic Principles: The faculty of Iowa State University believe that all educated people should be able to communicate effectively in a variety of settings and media, including electronic. Consequently, Iowa State University graduates are expected to develop competence in three interrelated areas of communication: written, oral, and visual.

This communication competence can best be achieved through the following five principles:

• Communication instruction and practice are distributed over the student's entire undergraduate experience, both in and out of the classroom, from the first year through the senior year.
• Communication instruction and practice are distributed across the curriculum, both in communication courses and in courses in the student's major.
• Active learning and higher-order thinking are fostered through communication.
• Faculty across the university share responsibility for the student's progress in communication practices.
• Both faculty and students engage in ongoing assessment for continuous improvement of the student's communication practices.

Iowa State University's communication curriculum, based on these five principles, seeks to enrich the student's understanding of the various subjects studied as well as prepare the student to communicate successfully in professional, civic, and private life.

Foundation Courses
To ensure that broad communication competence is addressed and developed at the beginning of a university career, all students will earn six credits in the two-course introductory sequence (ENGL 150 Critical Thinking and Communication and ENGL 250 Written, Oral, Visual, and Electronic Composition), normally taken in the first and second years. Students will focus on writing and critical reading, with complementary instruction in visual, oral, and electronic communication; they will concentrate on civic and cultural themes; and they will enter work in a communication portfolio to document their current level of proficiency.

Upper-Level Curricula
Continuing development of communication skills will be directed by the student's major department. Using the university's basic principles as a guide, each department will specify a set of intended learning outcomes and design communication experiences by which students in the major can achieve the desired level of communication proficiency.

Departments may select from or combine a variety of communication options that best match their faculty, students, and curriculum:
• designated communication-intensive courses that integrate written, oral, and visual communication into a course in the major;
• a sequence of courses within the major that incorporates communication tasks of increasing complexity;
• linked courses—one in communication, one in the major—that integrate readings and assignments;
• advanced composition course(s) appropriate to the student's major and offering instruction in written, oral, and visual communication;
• communication-intensive activities within or beyond course work, such as communication portfolios, discipline- or course- specific student tutoring, community service projects, internships, electronic presentations, informational fairs, juried competitions, entrepreneurial projects, newsletters, Web sites.

Departments will retain the authority for regularly assessing the degree to which their students achieve the specified learning outcomes and for making curricular improvements based on departmental assessment data.
APPENDIX G: IRB APPROVAL SHEET

Date: 2/25/2016
To: Kathleen Rose
449 Ross Hall

From: Office for Responsible Research

Title: University student perceptions of writing skills and knowledge transferred from advanced high school courses

IRB ID: 16-040

Approval Date: 2/25/2016
Date for Continuing Review: 2/24/2018
Submission Type: New
Review Type: Expedited

The project referenced above has received approval from the Institutional Review Board (IRB) at Iowa State University according to the dates shown above. Please refer to the IRB ID number shown above in all correspondence regarding this study.

To ensure compliance with federal regulations (45 CFR 46 & 21 CFR 56), please be sure to:

- Use only the approved study materials in your research, including the recruitment materials and informed consent documents that have the IRB approval stamp.
- Retain signed informed consent documents for 3 years after the close of the study, when documented consent is required.
- Obtain IRB approval prior to implementing any changes to the study by submitting a Modification Form for Non-Exempt Research or Amendment for Personnel Changes form, as necessary.
- Immediately inform the IRB of (1) all serious and/or unexpected adverse experiences involving risks to subjects or others; and (2) any other unanticipated problems involving risks to subjects or others.
- Stop all research activity if IRB approval lapses, unless continuance is necessary to prevent harm to research participants. Research activity can resume once IRB approval is reestablished.
- Complete a new continuing review form at least three to four weeks prior to the date for continuing review as noted above to provide sufficient time for the IRB to review and approve continuation of the study. We will send a courtesy reminder as this date approaches.

Please be aware that IRB approval means that you have met the requirements of federal regulations and ISU policies governing human subjects research. Approval from other entities may also be needed. For example, access to data from private records (e.g., student, medical, or employment records, etc.) that are protected by FERPA, HIPAA, or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. IRB approval in no way implies or guarantees that permission from these other entities will be granted.

Upon completion of the project, please submit a Project Closure Form to the Office for Responsible Research, 1130 Pearson Hall, to officially close the project.

Please don't hesitate to contact us if you have questions or concerns at 515-294-4666 or IRB@iastate.edu.