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## Flowing and Freestyling: Learning from Adult Students about Process Knowledge Transfer

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## **Flowing and Freestyling: Learning from Adult Students about Process Knowledge Transfer**

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A study of twenty-five newly returned adult students finds that students with more process experience used more and more specific process analogies to construct their writing processes for school assignments than those with less process experience. Cues from peers and sense of academic identity also influenced transfer of process knowledge.

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**A**dult students add nuance to our understanding of transfer. Overwhelmingly, research on writing transfer assumes students move from grammar to high school to college to work in one uninterrupted progression. Yet, 40 percent of college students are older than twenty-four (“Table 191”), and younger students increasingly work while attending college (“Table A-45-1”). These students move, often daily, between writing at work, at school, in communities, and at home. To ignore how writing in these other contexts influences how students write for school is to unnecessarily impoverish our understanding of our students, their writing development, and the possibilities for transfer. In response, his article reports upon a study of the writing processes of twenty-five adults who had recently returned to school to complete their bachelor’s degrees. After reviewing research on transfer of writing knowledge, particularly by adult learners, I provide an overview of my study and findings, followed by two case studies. I conclude by briefly considering the implications of this research for teaching writing.

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### **Transfer, Adult Students, and Academic Writing**

Interest in learning transfer has exploded in rhetoric and composition as scholars such as David R. Russell and James Paul Gee have highlighted the difficulty of transfer, and studies have found, with few exceptions, little evidence that students transfer what they learn about writing (for examples, see Wardle; Bergmann and Zepernick; and Beaufort). A clear indication of this interest in transfer is the publication in 2011–2012 of three essays reviewing the literature on transfer as it applies to the teaching of writing.

Doug Brent traces writing-related transfer research through three, not fully sequential stages: the “closing the gap stage” in which researchers try to figure out what students need for future writing tasks and give it to them (3–4); the “glass half empty” stage in which genre, activity, and situated learning theories all point to the difficulty, if not impossibility, of transfer (4–8); and the “glass half full” stage in which transfer is possible when rethought as piecemeal rather than wholesale, as transformation rather than transporta-

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tion of knowledge, and as requiring immersive learning (8–10). Brent and Christiane Donahue both show transfer research moving from a cognitive to a more socially situ-

ated view of learning. Donahue stresses the role composition studies can take in leading transfer research, pointing out that many of the conclusions about how to support transfer “seems to be simply about good teaching” (165). She calls for empirical study to demonstrate that these practices do demonstrate “evidence of their role in creating transferability” (Donahue 165). Jessie Moore shows that research on writing transfer has focused on genres and transfer from first-year composition to other classes and from college to professional writing, not process transfer or transfer from professional and personal to school writing. While these three reviews cover a tremendous amount of scholarship, none considers specifically what has been learned about how adult students transfer writing knowledge.

Transfer occurs when people make use of prior experiences to address new challenges; the significance of prior experience is a central theme in adult education. Adult learning pioneer Malcolm S. Knowles made experience one of the six principles of andragogy. Sharon B. Merriam, Rosemary S. Caffarella, and Lisa M. Baumgartner’s *Learning in Adulthood: A Comprehensive Guide* devotes a chapter to “Experience and Learning” (159–86), and David A. Kolb

wrote *Experiential Learning: Experience as the Source of Learning and Development* on the topic. All agree that building from adults' experiential knowledge can engage, motivate, and give confidence to adult students, provide countless examples that serve as raw material for new learning, and support learning transfer. However, they also warn that prior experiences can keep students from being open to new learning.

Research indicates that, sometimes for better and often for worse, adult students do transfer what they have learned about writing. Theresa Castaldi shows how adults in a history class transferred the organization and sentence structure with which they were familiar from their workplaces (17–18). Transfer was helpful, or positive, for two students whose workplace literacy practices aligned with those required for school, but it was not helpful, or negative, for a third student whose “reliance upon an inappropriate template for academic writing ultimately hindered his school work” (Castaldi 19). While Castaldi studies transfer from the workplace, Alice M. Gillam distinguishes between business and journal writers. Based upon a study of sixty-four adult students, Gillam concludes that business writers tended to be “terse,” structured, and focused on writing to persuade an audience, while those who kept personal journals wrote detailed descriptions but lacked organization and confidence in their writing (6–8). After studying the genre decisions of ten returning students, Randall Popken argues that the process of learning academic genres can be difficult for adults “with a large genre repertoire to draw upon, especially if they don’t have much conscious control over it” (n.p.). Michael J. Michaud studies transfer of not only genre but also writing process knowledge in seven adult students (252). Michaud focuses upon Tony, who used a process Michaud calls “assemblage” and Tony calls, “right click steal”: “Assemblage has come to be his preferred means of composing. In all three of his professional roles . . . Tony remixes, assembles, or right-click-steals ‘existing texts’ to solve ‘writing or communication problem[s]’ in ‘new contexts’” (245).<sup>1</sup>

In his study of a graduate student’s writing process, Kevin Roozen presents an account of transfer as a kind of creative remixing or “repurposing” of process elements from various practices to solve writing problems in new contexts (346). Roozen’s findings align with the rethinking of transfer as transformation described by both Brent and Donahue. Unlike the undergraduates in Castaldi, Gillam, Popken, and Michaud’s studies, who seem to transfer prior practices wholesale, Roozen’s graduate student, Lindsey, pieces together and transforms different bits of prior knowledge to construct processes that work for her cur-

rent context. Because she keeps combining and transforming old practices to meet her changing needs, Lindsey does not have a negative transfer problem. When one process piece presents a problem, she brings in another: “her verse copying also introduced a constraint to her process. . . . Lindsey addressed this limitation by repurposing yet another practice into the nexus” (335).

Research in psychology and education on transfer and analogical reasoning explains why Lindsey is more adept at transferring prior knowledge than the other students. Learners with practice approaching problems from multiple perspectives are better at transfer than those without such experience (Bransford, Brown, and Cocking 66). Educational psychologist Ann L. Brown argues that the salient factor for positive transfer is learning flexibility. Those who have not learned flexibility transfer a solution whether it is appropriate or not: “Having learned one solution to several problems, they see no reason to change; their previous success *blinds* them to the novel . . . solution” (Brown 404). Thus, it is no surprise that learners like Michaud’s Tony, for whom one writing solution has worked in “all three of his professional roles,” inappropriately transfer their well-worn writing practices to their school writing. On the other hand, more experienced learners, like Lindsey, have learned to be flexible in addressing new learning challenges.

Lindsey also differs from the adult undergraduates in the studies mentioned above because she pieces together a variety of process analogs rather than trying to import a complete prior process. Analogical reasoning is so closely tied to learning transfer that Patricia A. Alexander and P. Karen Murphy suggest that they are essentially the same thing (564). Yet, Donahue points out, “the single most important and agreed-upon tool for developing transfer—reasoning or learning by analogy—is the least-studied or referenced in composition studies” (151). Based upon a study of medical students, Rand J. Spiro and colleagues argue that complex tasks require learners to draw upon multiple analogies: “we claim that for most domains of any complexity the ‘pieces’ (e.g., stages, sectors, aspects, etc.) into which the domain is divided will each need to be covered by more than one analogy” (528). Thus, more expert practitioners presumably have internalized a wide variety of process analogies upon which they can draw. Indeed, Linden J. Ball, Thomas C. Ormerod, and Nicola J. Marley found that expert designers generated more analogies than novices (505–06).

### **The Study**

Researchers who understand transfer as the transporting rather than the transforming of knowledge tend to set up controlled experiments to see if

learners transfer a preselected solution. A well-known example is Mary L. Gick and Keith J. Holyoak's experiments testing whether learners figure out how to treat a tumor by transferring a convergence solution from the story of an attack on a castle. Joanne Lobato critiques this method for being laboratory bound, ignoring learners as acting and situated subjects, and ignoring the role played by context in transfer: "Researchers operating from the classical approach typically predetermine 'what' will transfer rather than making the 'what' an object of investigation" (291–93, 294). As an alternative, she advances an actor-oriented approach to transfer that focuses on understanding the connections learners make rather than those the researcher thinks they should make (293). Elizabeth Wardle used such an approach when she analyzed student self-reports to discover that students could, but frequently chose not to, transfer writing knowledge (74). Critiquing adult learning theories for ignoring the complexities of adults' actual learning experiences, Tamsin Haggis also espouses an actor-oriented approach when calling for study of how adults describe their learning (209).

This article reports findings from the first year of an ongoing, actor-oriented, longitudinal study of the writing development of adult undergraduates. The twenty-five students in this study attend a college for those aged twenty-four and older that is part of a large, private midwestern university (Midwest). The study follows them from an introductory course, Foundations of Adult Learning (Foundations), through graduation. The students who volunteered to participate in this study came from diverse backgrounds, with varying degrees of the "cultural capital" that smoothes the path to college. Sixty percent did not have a parent who had completed college. Their average age was thirty-nine, and they ranged in age from twenty-six to fifty-five. Three-quarters were women, and half identified themselves as persons of color. All but two were attending school part-time, and most worked full-time. On average, they had already attended two colleges before starting this, their third, undergraduate degree program. At these other schools, they had taken an average of two academic writing classes with an average grade of B-, though most had not taken a writing class in over a decade. All wrote regularly, most at work and many for personal interests.

Adult students are diverse, so these twenty-five students cannot be understood to represent all adult students. Male students are underrepresented

**The twenty-five students in this study attend a college for those aged twenty-four and older that is part of a large, private midwestern university (Midwest). The study follows them from an introductory course, Foundations of Adult Learning (Foundations), through graduation.**

in the study. The sample is also skewed slightly toward stronger writers, with students in the study having an average grade of B- in prior composition courses. Because some instructors encouraged their weaker writers to participate in the study, a volunteer bias for stronger students is not as high as one might expect. Not only are adult students diverse, so are their writing processes. After interviewing eight adult students about their writing processes, Haggis reported “Note-taking could mean producing very detailed notes in the early stages of the process, taking no notes at all ‘for ages,’ or taking notes only if things were ‘going well.’ . . . no two students seemed to work in the same way” (216). The writing processes of the students in the study varied not only from student to student but often from assignment to assignment. However, students’ default processes as well as the options from which they chose when modifying these defaults were frequently shaped by the processes they had mastered in their non-academic lives.

To understand whether and how students transfer writing knowledge when returning to school, this article relies primarily upon findings from over sixty hours of interviews with these students when they were enrolled in Foundations. I was not their Foundations teacher and, while they understood that I was conducting research, students seemed to regard me primarily as a tutor. Students take Foundations within their first few terms of returning to school, and all Foundations students must complete a common assignment. This assignment, an eight- to twelve-page research paper called the Professional Goal and Action Plan (PGAP), combines reflection with research on the knowledge, skills, and attributes students will need to achieve their professional goals. Thus, this course provides an opportunity to observe students adjusting to academic writing demands, often for the first time in years.

Interviews were semi-structured to address the research questions while allowing students to introduce unanticipated topics and questions. I organized the interviews around samples of their writing, borrowing from Theresa M. Lillis’s “talk around texts” and Roozen’s “process-tracing interview” methods. We discussed and I kept samples of students’ school, work, and personal writing, including, when possible, notes, outlines, feedback, and drafts. In addition, I collected the learning autobiographies and writing self-assessments students completed as part of Midwest’s admissions and orientation process.

By interviewing students at three points during the ten-week quarter, I was able to observe students testing and tweaking their processes as they adjusted to being back in school and to writing the PGAP. In interviews, I asked students

to describe their process for each kind of writing they did, to describe their process as they were working on assignments, to identify any changes in their writing process over the quarter, and to consider whether their other writing had influenced their school writing. (See Appendix A for all interview questions.) In addition, I asked students to keep a log as they wrote one school document and one work-based document on which they noted what they did, when and for how long, and how they felt each time they worked on it. (See Appendix B for a sample of this log.) Thus, I gained insights

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into students' writing processes from their initial descriptions of these processes, from how the processes were represented in the writing logs, from the evidence that came with students' papers, and from our subsequent discussions of their writing logs and papers. I have also twice shared my results with the study participants and incorporated their responses into my ongoing analysis.

To better understand if and how students were transferring prior knowledge, I developed case studies for two students who differed demographically (age, race, gender, socioeconomic background) and academically (academic preparation, writing ability, and sense of academic identity). The case studies, which I present in the next section, revealed that a sense of academic identity, peer cueing, and analogical reasoning all played significant roles in whether these students transferred useful process knowledge. While the case studies illustrate, and others have shown, the role identity plays in writing development (see, for example, Herrington and Curtis), I did additional analysis of the data to test whether the findings about peer cueing and analogical reasoning held for the other students in the study.

### ***Peer Cueing***

For most of the students, seeking out and using peers for feedback was a well-established part of their writing process, a practice that had often been cultivated in the workplace. Twenty-four of twenty-five students reported receiving peer feedback on their writing, and twenty-one of these actively sought out and received feedback from a peer outside of their class, such as a friend, relative, or coworker. Without being asked, seven students offered examples in which peers cued them to apply prior process knowledge. For example, a neighbor

prompted a student to keep rewriting; a daughter reminded her mother to use freewriting techniques; another student transferred his revision-intensive song-writing process to what had been his one-off school writing process after reading a peer's discussion board post "and then it clicked for me" (Sponge). Similarly, Haggis found that for most students "[i]nteractions with supervisors, partners, family members and peers were cited, in numerous different ways, as being crucial" (217). Transfer research rarely considers how peers can prompt transfer in each other, focusing instead on how teachers can cue transfer (for example, see Alexander and Murphy). Haggis's findings as well as my own suggest the value of leveraging not only class-based peer feedback but also the feedback networks students have already developed.

### ***Analogical Reasoning***

The two case studies revealed three connections between students' process knowledge, use of analogies, and academic writing. First, each student drew upon process analogies from his or her personal and professional lives to describe their academic writing process. For example, a student who owned a restaurant described adding details as adding meat to her paper. Second, the number and specificity of these analogies corresponded to the number of opportunities each student had to engage in high-stakes production. I defined as high-stakes that production for which audiences paid in some way. At work, students produced many kinds of writing including reports, process manuals, and solicitation letters. Outside of work, a few students also wrote for publication, including music reviews and a local history. Other nonwriting, high-stakes production included the work of a former professional ballerina, a heavy metal musician, an electrician, and an event planner. I did not count as high-stakes writing any production that was strictly for oneself (journaling) or for low-stakes audiences (personal letters, Facebook updates). Third, the amount of high-stakes production the two case study students had done corresponded to the effectiveness of their current academic writing.

I tested the case study findings by analyzing the data from all twenty-five students. The sample was too small to confirm with any certainty the third finding, the relationship between students' experience with high-stakes production and academic writing effectiveness. However, the correspondence between high-stakes production and useful process analogies did apply to the other students in the study.

To make this determination, I counted the kinds of high-stakes, non-school-related production in which students engaged. Of the nineteen students

I interviewed three times, ten had engaged in zero or one kind of high-stakes production outside of school, while nine had engaged in two to six kinds of noncurricular, high-stakes production. Then, I coded all the analogies students used to describe their writing processes. I defined analogies as implicit or explicit comparisons between two things that are essentially different. I included both metaphors and similes as analogies.<sup>2</sup> Thus, in addition to explicit comparisons, I counted as analogies any comparisons implied through figurative language such as “flowed,” “blocked,” and “hammered out.” I did not count cases where I initiated the use of an analogy. If a student sustained an analogy in his or her response, I counted it as one analogy. If a student used multiple analogies in a response, I counted each separately. I coded each analogy as either “global,” meaning it was used to describe the writing process as a whole, or “dimensional,” meaning it described some part of the writing process.<sup>3</sup> (See Appendix C for examples of analogies and how they were coded.)

**The results confirm that students who had more varied process experience used analogies more and more precisely.**

**Table 1. Relationship between amount of process experience and use of analogies**

Group	Number of Analogies per Student		
	Dimensional	Global	Total
“Low Production” (0–1 nonschool, high-stakes productions) (n=10 students)	4.6 59%	3.2 41%	7.8 100% (n=78 analogies)
“High Production” (2–6 nonschool, high-stakes productions) (n=9 students)	15.1 74%	5.3 26%	20.4 100% (n=184 analogies)

The results confirm that students who had more varied process experience used analogies more and more precisely. The 10 students with 0–1 kind of production made 30% of all analogies, while the 9 students with 2–6 kinds of production made 70% of all analogies (n=262). Students in the low-production group made 7.8 analogies per student, while those in the high-production group made 20.4 per student. Of the analogies they produced, low-production

students made fewer dimensional analogies (59% of their 78 analogies) than high-production students (74% of their 184 analogies). As a result, low-production students made on average only 4.6 dimensional analogies, while high-production students made 15.1 (or more than three times as many per student). Simply put, students with more experiences making things for which others will pay had more ways to think about the various parts of their writing process.

### **Tiffany and Doppel**

The cases of Tiffany and Doppel illustrate how analogies from prior process knowledge as well as peer cuing and academic identity influence transfer.<sup>4</sup> Tiffany represents the low-production group, having had little practice writing for others outside of school. She once worked in an office where her writing consisted of filling out forms. Currently, she journals for herself and, as a landlord, writes a few letters to tenants. Doppel represents the high-production group. Previously, as a concert promoter, he wrote press releases. As a partner at a startup company, he writes grants and reports for court and technical articles. In addition, he sometimes blogs and has had music reviews published in local newspapers. Doppel used over two and a half times more analogies overall and almost five times more dimensional analogies than Tiffany did. While Tiffany most frequently described her writing process as freezing or flowing, Doppel used a variety of analogies to describe various parts of his writing process.

Tiffany and Doppel come from different backgrounds. She is a fifty-three-year-old married African American female who grew up on Chicago's South Side. She attended a vocational high school and decided to go to George Williams College "at the last minute." The first in her family to go to college, she was inspired by her mother earning a GED. After "just barely making it" for three years, Tiffany left college with a 1.84 GPA. Tiffany attended two other colleges before coming to Midwest. At each, she took academic writing classes, the first in 1972 and the last in 2006, earning grades of C, A, and B. Although she did not complete her degree in social work, Tiffany has informally served as a social worker for years through her work as a landlord in a struggling community, as a leader in a support group, and as a member of her church.

Doppel is a thirty-three-year-old single white male who grew up in Fargo, North Dakota. One of his parents and a sibling completed college. Doppel attended the local public high school, where he reports that he received more challenging writing instruction than he later encountered at the University of North Dakota. Doppel's grades for the five writing classes he took starting in

1993 were F, B, B, Incomplete, and an F again in 2004. However, at Midwest, he placed out of the required writing class, and his Foundations instructor wrote that Doppel's "writing was particularly strong." While Tiffany often advises those with little education, Doppel regularly interacts as a peer with PhDs and lawyers. After spending a decade as a concert promoter and disk jockey (DJ), he is currently a partner at an engineering company that provides expert testimony in court cases. He began working for a former professor at this start-up company doing technical analysis because of the drafting and AutoCAD certifications he earned studying architecture. He has since attained a project management certificate and now does research and development. Doppel also continues to work occasionally as a house DJ. When we first talked, he had just returned from DJ-ing in Oslo, Norway.

### **Tiffany's Process**

Tiffany's desire for and resistance to the scholarly and professional plays out in her ambivalence about grammar, her perception of herself as a writer and her writing process. She rarely transfers writing process strategies she has learned in school, but she consistently transfers the freewriting process she practices daily both because she has internalized this process and because it allows her to protect her sense of herself.

Interviewing Tiffany was a revelation. She was one of two students in this study whom I had taught previously at a community college. In class, she rarely spoke and was frequently behind on assignments. Yet, she walked into our initial interview and erupted with words, posing and answering her own questions, and giving a thorough account of her writing history before I could ask my first question. I was also surprised to learn that Tiffany journals thirty to sixty minutes a day. How could this student, for whom writing had seemed to be such a slow, painful process, be the same person who journaled each day? Tiffany did not seem to support Gillam's claim that women who journal have no problem getting words on the page. In fact, when working on her PGAP, Tiffany spent 30.5 hours researching, thinking, and otherwise not getting words on the page.

Each time we met, Tiffany described the same cycle of feeling lost, procrastinating until she had no choice but to "just write," lamenting not using the writing strategies she had learned, and resolving to do better next time. However, the next time inevitably followed the same well-worn pattern. Why, I wondered, was Tiffany not applying what she had learned?

**Why, I wondered, was Tiffany not applying what she had learned?**

Tiffany did use writing strategies she had learned in school when prompted by her peers. For example, her notes show that she used a concept-mapping technique, clustering, that she had learned years earlier. Tiffany explained that talking with a friend had reminded her of this technique. On another assignment, an article summary and response, a different friend helped Tiffany by encouraging her to freewrite: “she said just start typing.” Tiffany connected what her friend said to the freewriting exercises she had done almost two years earlier: “That’s what you guys told us to do in our class.” Yet, in her next class, Tiffany again delayed starting an assignment because she was unsure what to do. Eventually, she remembered her friend’s insistence that she get on the computer and start typing: “I kept writing and scratching out, writing and scratching out. . . . Then I remembered what my friend said . . . after a while it was just flowing.” In this case, while not directly being prompted by her friend, it is the memory of her friend’s advice that helped Tiffany return to a technique that worked for her in the past.

However, peer cueing did not result in lasting change for Tiffany. In the same conversation in which she had remembered her friend’s advice to just start typing, Tiffany reported that she was once again “freezing up” as she worked on her next summary and response: “I’m feeling kind of frustrated. . . . I read everything, I understood it, I took notes but then I kind of froze up.” In her notes, there is no evidence that Tiffany attempted to use invention strategies like clustering or freewriting. Instead, she falls back to her default writing process, which she described as “Usually I wait to the last minute and then I just throw something down.”

Procrastination appears to let Tiffany use the writing process that works for her—that of her journaling. Once she has let the clock tick down, she has no choice but to just write: “I typed several things and, and blacked it out. But then after a while it was just flowing.” *Flow* is the verb Tiffany uses to describe her journal writing. When journaling, she says: “I kind of flow, I flow.” Tiffany seems to imagine writing as a stream that is either flowing, as in her journaling, or frozen, when she feels overwhelmed by her school assignments. Spiro and colleagues “argue that simple analogies that help novices to gain a preliminary grasp of difficult, complex concepts may later come to be serious *impediments* to fuller and more correct understandings” (498). In Tiffany’s case, flowing is a problematic oversimplification of the writing process in which one potential part of that process, the flow of generative freewriting, becomes her only writing process strategy.

Tiffany's anxiety about academic writing is at odds with her sense of herself as a capable, problem-solving adult. She is an entrepreneur not only as a small business owner but also in her willingness to take risks and challenge conventions. She prides herself on these attributes: "I am a very resourceful person with many creative ideas." When she was unhappy with her children's schools, Tiffany became the first in her African American community to homeschool her children. When she wanted to learn to swim, she did not let her embarrassment keep her from taking lessons with her children. In contrast, she could not bring herself to attend a writing class with her son:

I sent him, but I didn't go. I was, oh embarrassed, I guess because I felt that it's like learning how to do something, and you're in a kid's class, and you're an adult . . . you want to know, but you feel so dumb cause they already know it . . . I felt that when I was learning how to swim. I was in a swimming class, and there were two kids and me. Two kids and me! I could not swim, but I kept at it, and I eventually learned. Same with the English if I had done that, but I sent my son.

When it comes to writing, Tiffany's fear of being seen as "dumb" outweighs her risk-taking, entrepreneurial inclinations.

Her fear has resulted in physical symptoms: "I had this spasm thing because I felt kind of intimidated . . . my stuff is like kindergarten." Her reference to "kindergarten" is indicative and all too common. Tiffany characterizes her writing as "like children's stuff" and "this is grammar school . . . this is terrible." Similarly, she labels her work writing as "junk" and "like just somebody off the street writing something" when her goal is to produce writing like that of "someone who is professional, and I'm not professional yet." Many other students in the study echoed Tiffany's words. For example, Grizz reported that he was trying to sound "more professional, more another level." Ron described his writing as "elementary," when he wanted it to sound "more educated . . . more knowledgeable . . . more advanced." For these students, writing is both a vehicle for and a potential threat to their aspirations.

Given Tiffany's concern with the ways her school writing might represent her, it is not surprising that she spends hours staring at a blank notebook and then scratching out everything she manages to write until the last minute arrives, and she has to "just write." When she journals, she expresses herself: "I flow. And I feel that I'm expressing myself; I'm freer in my expressions." When she writes for school, Tiffany polices herself, focusing on correctness: "I want to have it right." Tellingly, she describes grammar as a foreign language: "they were talking [about] the adjective, and I'm like what does all that have to do

with . . . it was like speaking a foreign language to me.” Her sense that a common grammatical term is a foreign word demonstrates her alienation from school literacies. For Tiffany, grammar is arbitrary, subjective, and not hers. When I explain when to indent paragraphs, she replies: “Is that what you’re saying? That’s your rule?”

Tiffany lacks confidence in her command of grammar, but she also questions its value. She says, “If it sounds right, can’t *we* just write what sounds right? . . . Is that a rule? *You’re* not supposed to do this because *you* should have put the *-ed* there. Ah, okay, *I* really did not care for English” (emphasis added). Tiffany resists this rule even in her use of pronouns, switching to the second

**Tiffany’s freeze-versus-flow process analogy is symptomatic of her conflict between accommodating herself to and resisting conventions about which she is ambivalent.**

person *you* rather than accepting that *we* or *I* should “do this.” Moreover, Tiffany’s example, the need to add an ending (*-ed*) often dropped in the African American vernacular, suggests that her dislike of grammar may involve not only her sense of competence but also her sense of identity as an African American woman.

Theresa Lillis shows that the kind of academic “essayist literacy” Tiffany is being asked to produce assumes white, male, middle-class norms that challenge students who do not share these identities in ways that are unspoken and often mystifying (53–77).

Lillis argues that writing decisions are deeply caught up with students’ sense of identity and their desire for and fear of education as a vehicle for class transformation (78–106). Tiffany’s freeze-versus-flow process analogy is symptomatic of her conflict between accommodating herself to and resisting conventions about which she is ambivalent. It allows her both to strive for and to resist a scholarly identity while protecting her sense of herself because she can blame any shortcoming in her writing on her rushed state: “I’m not going to worry about it. . . . I could have done better, but I’m rushing.” And again: “he [the teacher] said two pages, and I was at two pages. Right, so I just stopped . . . and I didn’t maybe say everything . . . probably, had I done all that earlier, I could’ve went back, and tweaked it.” Tiffany’s logs indicate that she devotes plenty of time to working on her writing assignments but delays actually putting words on the page until the final hours. Delaying lets Tiffany claim some control of her writing: “I don’t know if this is what he wants, but this is what I’m going to do.” Using the imminent deadline to free herself from worrying about what she is supposed to do, Tiffany can write what she decides using a writing process with which she is familiar.

### **Doppel's Process**

While Tiffany gives herself little if any time to revise, Doppel's process includes strategies for brainstorming, organizing ideas, and revising that he has transferred from his prior experiences in school, at work, and as a DJ. Given his more privileged background and greater practice writing in a variety of contexts, it is not surprising that Doppel is a stronger writer than Tiffany. What is instructive is how he was able to draw upon his experiences to move past being stuck in a process that had been even more problematic than Tiffany's, resulting not just in lower grades but also failed classes.

While Tiffany finds academia a foreign land, Doppel identifies as a native as the pseudonym he selected, Doppel Gänger, makes clear. Perhaps because of his greater comfort with academia and his greater variety of writing experiences, Doppel engaged in more metacognitive thinking about his writing than Tiffany did. Researchers in a variety of disciplines agree that metacognition enhances transfer (Beaufort 152; Bransford, Brown, and Cocking 12; Perkins and Salomon 9; Gee 174; Rounsaville, Golberg, and Bawarshi 108). For Doppel, it certainly did. For example, his boss repeatedly critiqued his indirect style: "It's not that I've been told once or five times get to the point, I've been hearing that for years, you know." When Doppel read the paper of a peer with a similarly indirect style, he had an epiphany, complete with sound effects: "literally . . . I was hearing the fire trucks that go down my street, when I was reading this guy's paper. I was thinking, I do this to some extent. And it was like a foghorn in my head. Don't do this; this is driving me nuts." The feedback Doppel had received at work to "get to the point" had prepared him to connect his peer's writing to his own so that he "definitely gained a positive insight into my own writing. The insight that while I can try to write in an engaging and deeply developed style, I can do that while still being direct." His PGAP was, in fact, a model of point-first paragraph construction. In this example, Doppel applied both backward and forward reaching strategies (Nelms and Dively 218). He thought back to his boss's advice to get to the point and connected it to his advice to his peer. He also thought forward as he applied this advice to his own writing. In both cases, his metacognitive thinking about his writing enabled transfer.

Doppel's metacognitive strength meant that he had "conscious control" over his "genre repertoire," unlike the adults Popken studied (n.p.). Russell

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speculates that exposure to different genres may make it easier to transfer knowledge “that a person may have ‘learned how to learn’” (59). While Popken’s finding suggest that exposure may not be enough, Doppel indicates that practice writing a variety of genres for real audiences does enhance transfer. He has “learned how to learn.” For example, he described developing a template for his weekly journaling assignment that then automated his writing process: “so that has turned into basically a template. . . . the structure is kind of there now every week so I don’t have to revisit, ‘What’s my process here?’ . . . I know how to approach it every time.” Doppel thought in terms of templates because he creates and revises them to present his company’s research in court. He transferred this idea of a template to his school writing when he found himself in the familiar situation of doing the same writing task multiple times.

The way Doppel came to a more effective writing process is heartening to composition instructors willing to take the long view. He was introduced to the idea of writing multiple drafts in middle school, but it was not a happy, nor a particularly promising, introduction: “I do remember I hated doing rough drafts. I always thought, ‘Oh no, I’ll whip it out once, and that’s good, and that’s it.’ So I was often maybe docked for not getting all my drafts.” More recently, he has “started to use more drafts and that was something that I was just against.” Doppel’s rapprochement with drafting started at work: “this actually can connect back to those old rough drafts that I didn’t like to do, if I simply start writing and get some of it out, then I can take a hammer to it and start shaping it. . . . I’ve come to appreciate that the last couple of years, especially [since] I’ve done a fair amount of work writing.” Wardle suggests that undergraduates often do not transfer what they know from freshman composition to other classes because they do not need to do so (76). Apparently, Doppel did not need the writing strategies he had learned in school until he entered the workplace. When he returned to school, he brought these strategies back with him. In describing his current writing process, he makes clear that “We’d be having a completely different conversation if this were ten years ago.”

Doppel called his freewriting “freestyle writing.” For a DJ, freestyling refers to a process of impromptu musical composition, and it is a telling hint of the ways Doppel’s experiences outside of academia have influenced his approach to writing for school. At another point in our conversations, he explicitly connected his DJ-ing to his writing process: “you know, it is just like writing. I take like 150 disks with me—no way I’m going to play that many—I’ll end up focusing on 30 to 40, but I want the others with me just in case I want to go off

in a direction.” DJ-ing has given Doppel an analogy that lets him be comfortable brainstorming (or freestyling) rather than waiting until he has everything he wants to say figured out in his head.

In addition, Doppel’s work as a researcher has taught him to embrace failure as part of the learning process, making it easier for him to be willing to freestyle without worrying about whether his writing is any good: “You try things. You go, ‘Wow, that completely didn’t work,’ but then you have one level of experience. So you take the next step, and you go ‘Okay, let’s put some new parts together.’ Then, after you’ve crashed and burned five times, you go, ‘I think I have a handle on this now, and I know how to make it work.’”

**In addition, Doppel’s work as a researcher has taught him to embrace failure as part of the learning process, making it easier for him to be willing to freestyle without worrying about whether his writing is any good.**

Applying this experimental process to his schoolwork allows Doppel to write a rough draft without expecting it to be perfect, “I will do very loose, almost bullet point drafts of the first time through, and then after that I’ll start filling in the blanks, so I am doing more drafts. Whereas before when I would write a paper, the first draft really was the final draft. . . . Now, I’ll . . . build it into the second one, and then into a third one.” Borrowing from his experience as a researcher, he described this iterative revising as his “crash and burn” process.

While his work as a DJ and researcher helped Doppel start writing, his architecture and project management training gave him strategies for organizing his ideas:

part of my secondary education was finishing my Architect’s Associates for drafting. So I used to think of things on paper in blocks and chunks, and I would move them around like that. And eventually, when I was doing more projects and keeping schedules . . . what I do is I draw blocks out on a paper, and they’ll go down the left-hand side, say from top to bottom, and then next to that block is the information of that project. And I think eventually I suppose in a way that’s sort of a bullet point. . . . I see it parsed out . . . when I’m thinking about writing five pages, I will visualize okay what’s the first three-quarters of the page supposed to look like? And the bottom quarter into the full second page, what is that going to look like? So again it visually parses out like that. And that actually helps me establish the rhythm of the paper and where the idea is going to be presented. How do they segue into one another . . . then I’m not so worried. It’s like okay, here are the ideas. They’re not in your head in some grandiose amazing developing concept.

When talking about bullet points, Doppel sounds uncannily like Tim, one of the writers whom Anne Beaufort profiles. Tim explains: “Bullets helped me

kind of limit and clarify and put borders on things . . . They break it up for me to see where I'm going" (qtd. in Beaufort 137). As was the case with Tim, bullets help Doppel break his writing projects down into manageable chunks so it "doesn't feel so overwhelming," and bullets also help both men visualize or "see" the big picture.

With this big picture, Doppel can then begin global revisions: "if you have ten bullet points you can go, oh, I'm going to swap five and seven out or four and eight. Now I can kind of see the flow." Similarly, using her graphic design

**Both Tiffany and Doppel bring to school the process approaches that they practice outside of school.**

experience, Lindsey creates a process that allows her to visualize and "physically manipulate the arrangement of an argument" (Roozen 338). Even as he described his research paper visually, Doppel also was clearly thinking musically as his repeated references to "rhythm"

suggest. Doppel's experiences with drafting and music have given him analogies for thinking about writing as an organizing of space and time. Hence, he aims to write where he is, "allowing the right chunks of time or space so that it has the right rhythm to it."

Both Tiffany and Doppel bring to school the process approaches that they practice outside of school. Tiffany imagines writing as primarily an off-or-on, freeze-or-flow, binary based upon her experience journaling. Doppel employs a collection of analogies for different elements of his process from which he can draw to construct, and when necessary tweak, his writing process. Both are prompted by peers to transfer process knowledge. Tiffany, however, struggles to internalize this input. She sees academic writing as discrete from who she is, what she does, and what she already knows. In contrast, Doppel's sense of himself as an academic writer increases the likelihood that he will look for connections between his prior and new learning.

**What Might This Mean for Teaching Writing?**

These findings suggest that we can be more strategic in helping students, particularly those without experiences like those upon which Doppel draws, develop the flexibility to adapt to new writing challenges. Based upon his research with Lindsey, Kevin Roozen recommends as a "valuable pedagogical tool" helping students develop awareness of their process knowledge not only in writing but also in their other "activities":

Teachers might invite students at a number of educational levels to produce detailed accounts of the processes they employ for a number of their own activi-

ties and then compare the practices at play in each. Such examinations across seemingly divergent performances may reveal shared practices that may not be commonly recognized at first. (347–48)

To this recommendation, I add the suggestion that we help students think not only about their processes, but also about the *ways* in which they think about their processes. Let me give three examples:

- Just as we teach students how to find, select, and use sources for their research, we can teach them how to intentionally seek out, select, and use peer feedback beyond the classroom. Most students in this study went to one person for feedback on their school writing. In contrast, consider the number and variety of readers you ask for feedback on your writing.
- While Doppel, Tim, and Lindsey connected their prior experience with visual thinking to their writing process, other students may not have these experiences or make this connection. However, they can learn. When Doppel drew a flow chart in class to sketch out a group presentation, a fellow student quickly caught on: “One of the women in the class looked over and said what are you doing? And I drew an arrow from one to the next and she said wow that’s so easy to understand.”
- Christiane Donahue argues, “Education’s role is thus to provide a broader range of analogies—potentially more apt or more efficient—than what might be available by trial and error or everyday” (151). We can teach students to identify the analogies they already use to think about their processes, to distinguish between general and dimensional analogies, and to practice mixing and remixing analogies to develop flexibility in their approach to new processes.

Yet, as Doppel’s history makes clear, teaching students effective strategies is for naught if they do not care about the writing they are doing. Doppel and Tiffany invested in writing that allowed them to make things happen in the world or to explore topics, ideas, and questions important to them, even when that writing did not travel beyond the classroom. Doppel invested in his workplace writing because it allowed him to help build a company. When he took a conflict negotiation class, he initially put minimal effort into writing weekly journal entries. This changed when he could “see how I can apply this to real-life situations.” Tiffany, the landlord and active community member,

did her best writing in my composition course when she wrote a proposal to address the problem of landlord-tenant relations in her neighborhood. Both Tiffany and Doppel were most invested in their writing when they were writing in ways that aligned with their primary sense of self.

This study shows the roles identity, peer cueing, and analogical reasoning play in how some students transfer process knowledge when faced with new writing challenges. As Christiane Donahue reminds us, the next step is to test the possible implications of these findings for evidence that they do support learning transfer.

## **Appendix A: Interview Questions**

### **First Interview**

#### ***Demographic:***

1. Age:
2. Did your parents complete college?
3. Do you have any siblings who have completed college?
4. Are you an immigrant?
5. Were your parents immigrants?
6. Are you in school full or part time?
7. Do you have children? If so, are any not yet in school?
8. How do you describe your ethnic and cultural background?
9. How do you describe your class?
10. Do you work outside the home? If so:
  - Full or part time?
  - What is your work title?
  - What do you do?
  - Have you done/received performance evaluations at work? How often?

#### ***Education:***

11. Tell me about your prior schooling:
  - Where have you gone to school?
  - Did you graduate from H.S. or earn a GED?

- Did most students from your H.S. go to college?
  - Have you attended any schools post H.S.? If so, what?
  - Any significant training?
  - What did you like and dislike about school?
12. Why did you decide to return to school?
  13. How do you feel about being back in school?
  14. What kind of a learner are you?
  15. What do you think your focus area [major] will be?

**Writing:**

16. Tell me about your prior writing instruction:
  - Did you like your writing classes?
  - What did you learn about writing?
  - What did you learn about yourself as a writer?
  - Did you have any particularly excellent or terrible experiences with writing in school?
17. Do you consider yourself a strong, average or weak writer? Why?
18. Do you like to write? Why or why not?
19. What do you consider good writing?
20. What kind of writing do you do now? Think of all the writing you do now, from shopping lists to e-mails. How are they similar and how different?
21. How do you go about writing something in each of these contexts? Describe your writing process.
22. What kind of feedback on your writing (academic, professional, or personal) do you find the most useful? Why?
23. What kind of feedback on your writing do you find the least useful? Why?

**Second Interview**

1. Follow-up questions from previous interview:
  - Do you consider yourself a light, average, or heavy reader? Why?
  - How is writing for school different from your other writing?
2. How is writing going this quarter?
  - What is working?

- What is not?
3. Look at recent writing and discuss:
    - What were you supposed to do on this assignment?
    - Purpose of assignment (for teacher, for you)?
    - Audience writing for?
    - Overall organization/structure
    - Paragraph structure
    - Sentence structure
    - How to develop and support claims
  4. Discuss process, with logs if available
  5. Discuss feedback
    - How interpreted?
    - What decided to do?
    - How felt?

### **Third Interview**

#### ***For all writing (school, work, personal):***

1. Did your writing process change at all over the quarter?
2. Did you need to unlearn or relearn anything about writing this quarter?
3. Do you think you improved as a writer this quarter? If so how?
4. What was the most challenging thing for you to write this quarter? Why?
5. What are you most proud of having written this quarter? Why?
6. Do you think your work/personal writing experiences influenced your school writing this quarter? How?
7. Has your academic work influenced your work place or personal writing at all? How?
8. What one piece of feedback on your writing was most helpful to you this quarter? Why?
9. What feedback do you wish you had had that you did not receive?
10. What do you want to be able to do as a writer next quarter?
11. Look over papers/feedback/process

## Appendix B: Sample Writing Log

### Writing Log for a School Paper

Please complete this writing log for a paper you are assigned this quarter. Be sure to fill the log in after each period, no matter how brief, of work on your paper. When you have completed your paper, please email this log or bring it with you to our next meeting. Thanks, Michelle

**Your alias:**

**Briefly describe your assignment:**

Date	Time I spent working	What I did (i.e., brainstormed, researched, stared blankly at my computer screen, talked to a friend about my paper, freewrote, etc.)	How I am feeling (√ the appropriate box)		
					

**Appendix C: Examples of Global and Dimensional Analogies**

Global Analogies	
Student	Quote
Aubrey	I just couldn't figure out what to write I guess. I don't know why. It just seemed like I had a <b>brain block</b> .
Melina	Because I'll leave papers to the last minute. . . . And then it's like okay . . . I got to do it, so <b>I'll knock it out</b> that night before.
Ron	It was interesting for me to be able to write that and watch how that was able to <b>just sort of grow upon itself</b> and become a longer essay.
Sarah	<b>I can whip out</b> an email real quick if someone is looking for a response or if someone's looking for an update.
Henry	I just begin talking about where I'm at. I do try to, my emails are definitely disorganized because I'll just <b>throw a lot of stuff in there</b> and cover all my points and send.
Sponge	I'm writing my persuasive. It's not due until Monday, but I'm writing it now cause I have a busy weekend. But that anxiety of "I got to do it now" makes me focus, makes me grip, shut out the world, and <b>I hammer it out</b> .

Dimensional Analogies	
Student	Quote
Maxine	Because what I did from my draft, I just said well you know what, I want to <b>fortify</b> it.
Sam	I first wrote down what I thought, and then I went and found citations that I thought I could use, and then I would go back and try to figure out how to <b>blend</b> them together.
Suni	And to <b>build on</b> it. Yeah, it's like I'll allow myself to throw it all out there and then you can go back and say . . . That's not good, that's not good. Its like you <b>tear it down, and you build it back up</b> .
Uki	It takes me so long to <b>just conjure up</b> what I want to say. I could think it and actually articulating it and writing it are two different things.
Esther	Basically I cut and pasted a bunch of stuff and then I <b>whittle</b> it down, and I make several revisions. . . . I spend the time to edit and <b>whittle it down</b> to be as concise as possible.
Lola	And then go back and <b>clean</b> [after first draft].

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## Notes

1. While Michaud uses *assemblage* and *remix* interchangeably, Liane Robertson, Kara Taczak, and Kathleen Blake Yancey distinguish between these terms as two of three different ways that they find student writers using prior knowledge. They identify students who resist new learning as engaging in *assemblage* when they pick out elements of the new to add to, but not change, what they already know or do. Students who *remix* integrate new learning with old. Students experience “critical incidents” when their use of prior learning leads to failure that results in their overthrowing or profoundly transforming that learning.
2. I do not distinguish between metaphors and similes because it was impossible to differentiate in the transcripts between when *like* was being used as a comparative and when it was being used as verbal filler.
3. *Global* and *dimensional* come from Stella Vosniadou and Andrew Ortony’s discussion of the various kinds of similarity between analogs (3). A second coder identified analogies in 20 percent of the transcripts, and another coder classified 20 percent of the analogies as global or dimensional. All disagreements were resolved through discussion.
4. All student names are pseudonyms chosen by the students.

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