METACOGNITION AND TRANSFER: A CROSS-INSTITUTIONAL STUDY OF WRITING CENTER CLIENTS AND NON-CLIENTS

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Abstract

Building upon the research on metacognition and transfer in the fields of writing studies and writing centers, the following cross-institutional study examines the relationships among writing center experiences, classroom experiences, and student perception of transfer. The study focuses on three particular classifications of metacognition, as developed in Gorzelsky et al.'s taxonomy: monitoring, control, and constructive metacognition. The central research questions framing the current study are as follows: 1) Do university students perceive themselves as engaging in transfer of metacognitive skills across writing contexts? 2) Is there a difference in students' perception of transfer facilitated by classroom experiences in comparison with writing center experiences? The study confirms some of the findings of prior research (Bromley et al.) that indicate university students are engaging in multiple forms of transfer but offers some distinctions and variations among sites, contexts, and types of metacognitive transfer. The data indicates that writing centers might be sites that facilitate more monitoring and control of revision-related transfer and foster the cumulative, encompassing phenomenon of constructive transfer more than classroom activity alone. However, students perceive classrooms to be the primary source of transfer related to assignment requirements. The largest difference in student perception across all types of transfer was that writing center clients more strongly perceived themselves to engage in classroom-related transfer than non-clients.

Introduction

One of the most fundamental institutional pressures on writing centers is the need to provide evidence to show that the work they do in writing center sessions has an effect on the students who visit. In the most general sense, administrators and leaders want the student to learn a writing-related skill during the session and be able to apply that skill later while working on their writing task. Even better, they will learn skills they can apply to various future writing tasks. To put this another way, institutions and writing centers themselves hope that their student clients will engage in transfer. The problem with assessing writing center interactions for transfer is that student writing processes are complicated by numerous variables that are difficult to track. Writing takes place under varying conditions with varying levels of preparation and expertise. It is very difficult, under typical student writing conditions, to capture a student in the act of transfer. On the other hand, efforts to study writing phenomena under controlled experimental conditions are faced with the objection that students placed under such atypical writing conditions do not yield authentic writing performances.

In the university context, transfer has been studied in relation to classrooms and writing centers (Devet). Although we cannot control the innumerable variables that influence student writing processes, it is important to understand whether students are engaging in transfer. In addition, in the age of rigorous assessment and constrained budgets, it is critical to know whether particular university contexts, such as writing classrooms or writing centers, are more likely to facilitate transfer among students.

Writing centers have only begun formal study of transfer relatively recently in writing center history, though a range of scholars are demonstrating that writing centers are a fruitful setting in which to study and promote writing transfer. In this literature, the concept of metacognition, the ability to be consciously aware of one's thinking and choices, emerges as a key component of transfer, one that scholars are beginning to analyze and operationalize in the teaching of writing.

Although the field of composition did not gain momentum in studying transfer until the first decade of the 2000s (Carillo), they drew upon the foundational research of David Perkins and Gavriel Salomon from educational psychology (Devet). The bridge between composition's work on transfer and writing center scholarship was Rebecca Nowacek's influential *Agents of Integration: Understanding Transfer as a Rhetorical Act,* in which she includes a section of a chapter noting the potential for writing centers to build students' capacity for transfer. In that section, she identifies two roles for writing center consultants. She sees them as "handlers," who assist students in becoming agents of integration in a variety of ways, including helping them activate existing genre knowledge (137-138). Nowacek also sees the consultants as agents of integration in their own right in that, "the work of helping tutors to become effective handlers may also help tutors become more effective agents in their own writing" (138).

Given the mounting interest from composition studies and the identifying of writing centers as transfer sites by Nowacek and others, Bonnie Devet published a comprehensive "primer" to inform writing center directors of the important work being done on transfer

and the relevance of that work for writing centers. Devet traces the history of transfer theory and research, describing two influential lineages: educational psychology and composition studies. Overall, Devet assesses educational psychology's contribution to be its thorough analysis of "the cognitive nature of transfer" (128) and the establishment of terminology to understand the various shades of transfer (122-126). In shifting to the later contributions of composition scholars to the study of transfer, Devet notes groups of scholars working on particular aspects of writing transfer, including writer dispositions, process, rhetorical concepts, and genre. From composition, Devet moves to writing centers, and, like Nowacek, advocates strongly for writing centers as transfer sites, asserting, "transfer studies and writing centers are made for each other" (138).

Susan Hanh and Margaret Stahr studied transfer performed by clients by adding a question to their writing centers' client intake forms, a question that would prime clients to consider transfer and potentially make them more receptive to transfer talk during the session: "Does the assignment you want to work on remind you of any other assignments you've ever written? Be as specific as you can be." The question was designed to initiate some backward transfer, transfer from past writing situations to the present situation, before the start of the session, reframing the way students are looking at the assignment and, perhaps, themselves as writers. The central findings from analyzing client responses aligned with Elizabeth Wardle's foundational transfer study of first-year writers in that students were typically unaware of the ways in which aspects of one writing task can be applied in another writing context. A majority of respondents in Hanh and Stahr's study left the transfer question blank or simply answered "no." Even among assignments for the same course, Hanh and Stahr conclude, "instructors' assignment sequencing is not always visible to our students" (13). Because of this finding and findings indicating transfer can increase when prompted (Nowacek), they argue that tutors need specific training in transfer. Like Jody Cardinal, Hanh and Stahr argue for "bookending" writing center sessions, prompting for backward transfer at the beginning and prompting for forward transfer, transfer from the present situation to a future writing situation, at the close. Another distinction, one that resonates with the link Devet and Dana Lynn Driscoll and Jennifer Wells make between transfer and student dispositions, is that writers have varying receptivity to transfer.

Driscoll and Wells define dispositions as "individual, internal qualities that may impact transfer" (para. 1). The link between transfer and dispositions in writing center work is also the focus of a mixed-methods study by Pam Bromley, Kara Northway, and Eliana Schonberg, who used 2270 exit surveys and 37 focus groups to conduct an in-depth analysis of how students engage in transfer after writing center sessions. By having a larger data set and focusing on client perceptions of transfer, Bromley et al. present more convincing evidence that the writing tutors who worked with these clients were successfully filling the "handler" role described by Nowacek. Specifically, the client data showed evidence of near transfer (transfer that happens in a similar context), far transfer (transfer that happens in a different context), and high-road transfer (transfer that is fully conscious). In addition, clients indicated that they were "transferring knowledge to their general writing practices" (1).

Significantly, the instances of high-road transfer, the most deliberate and metacognitive form of transfer, were common in Bromley et al.'s data. This trend, along with explicit discussion in the focus groups, led them to consider the importance of metacognitive awareness, confidence, and dispositions in transfer research. In the focus group data, the researchers found strong evidence for the development of metacognitive awareness by clients, newfound awareness that was directly attributed to writing center sessions. They make the link from these breakthroughs and the development of metacognitive awareness to the dispositions of student writers, as defined by Driscoll and Wells. This finding is also significant in light of the 2011 Framework for Postsecondary Success in Writing, a set of recommendations developed by the Council of Writing Program Administrators (CWPA), National Council of Teachers of English (NCTE), and National Writing Project (NWP) that highlight the importance of eight habits of mind, one of which is metacognition, in the teaching of writing. More recently, Kathy Rose and Jillian Grauman, through their study of the role of motivational scaffolding and transfer in writing center sessions, found that writing tutors can influence aspects of a writer's dispositions, such as self-efficacy and self-regulation.

Although writing center scholarship has not fully explored this link between transfer and metacognition, recent work in composition studies is finding the connection productive. Dianna Winslow and Phil Shaw conducted a qualitative study of students in linked first-year courses that assigned writing. Winslow and Shaw's study is in some ways parallel to the Bromley et al.

study except that the classroom faculty were acting as "handlers" instead of the writing tutors. The courses included writing, reflection, and discussion tasks to enhance metacognition in students. In addition, explicit discussion of metacognition "practices and concepts," specifically those elucidated by Raffaella Negretti (2012) in her longitudinal study of metacognitive awareness in student writers, took place in the classrooms during Winslow and Shaw's study. As in Bromley et al.'s writing center study, Winslow and Shaw's study of students in first-year writing courses also found a correlation between metacognition and high-road transfer. In addition, they found that metacognition cultivates "interdisciplinary thinking" and an increased sense of agency among student writers.

The work of Gwen Gorzelsky, Dana Lynn Driscoll, Joe Paszek, Ed Jones, and Carol Hayes also supports the strong link between metacognitive awareness and transfer in college student writers. Through studying student papers and reflective writing, and by interviewing 123 students from four universities, Gorzelsky et al. created a "taxonomy" of the various subcomponents of metacognition, in order to understand how it is developed and practiced. The subcomponents identified were person, task, strategy, planning, monitoring, control, and evaluation. In recognizing a "cumulative" development of metacognition over time, Gorzelsky et al. introduces the term "constructive metacognition" to describe an advanced level of metacognition in which students exhibit metacognition explicitly across a variety of writing tasks and contexts (233-234). As they explain, constructive metacognition "unites most of the other metacognitive components and subcomponents" (234). In their recommendations for teachers and writing program administrators, Gorzelsky et al. offer suggestions that can be directly applied in writing centers. They encourage teachers to "model and elicit the metacognitive moves described in our taxonomy" (Gorzelsky et al. 238), a role that writing consultants, with the necessary training, could take in writing center sessions.

Although Bromley et al., Hanh and Stahr, and Cardinal make moves in the directions recommended by Gorzelsky et al., there is a need for more systematic and specific research exploring the specific mechanisms of metacognition and how they support transfer in writing centers. Responding to this need and building upon my previous research studying the connections among writing, metacognition, tutoring, and mindfulness (Featherstone, Barrett, and Chandler), the current study examines transfer in writing centers

through the particular subcomponents of metacognition. Specifically, I explored three particular classifications of metacognition, as developed in Gorzelsky et al.'s taxonomy: monitoring, control, and constructive metacognition. Because transfer research is happening in both classroom and writing center contexts, my questionnaire attempts to differentiate between students' classroom and writing center transfer experiences, a comparison that has not yet emerged in the transfer research literature. The research questions framing the current study are as follows:

1. Is there a difference in students' perception of transfer facilitated by classroom experiences in comparison with writing center experiences?
2. How do student perceptions of transfer vary according to particular components of metacognition (monitoring, control, constructive metacognition)?

Methods

With Institutional Review Board approval, I administered a questionnaire to 1241 university students at two large state universities during the spring semester of 2019. One of the institutions is in an urban setting, has more commuter students, and offers more distance programs. The other institution is in a rural/suburban setting, has more on-campus students, and offers fewer distance programs. Both institutions have writing centers that offer both online and face-to-face appointments. One writing center is entirely staffed by graduate students and the other staffed mostly by undergraduates.

Participants in the study were self-selected, as the recruitment email was sent to the entire student populations of both institutions. The academic year of the respondents was approximately 27% freshman, 21% sophomore, 21% junior, 21% senior, 5% master's level graduate student, and less than 1% doctoral level graduate student. Approximately 85% of respondents identified as female, 13% as male, and 1% as gender variant/non-conforming. In terms of race and ethnicity, approximately 64% of respondents identified as White, 15% as Black, 8% as Asian, and 7% as Hispanic.

The voluntary, anonymous digital recruitment emails and questionnaire links were distributed to students via two means. First, a bulk email message was sent out to all undergraduate students through official message distribution channels. Because it is statistically possible to have a proportionally low number of student respondents who have not visited

the writing center at their institution, a second wave of recruitment emails went out through the respective universities' WC Online database client email function. This database allows users to make writing center appointments and stores session data for writing center use. By sending an additional recruitment email through WC Online, the research study data would have more of a balance between writing center clients and non-clients.

In both distribution methods, therefore, a voluntary response sampling method was used, which creates a biased sample because the self-selecting participants may have been motivated by strong feelings about the subject matter. This non-probability sampling is not likely to produce results generalizable to the population (Dwyer and Bernauer). This is a clear limitation of the study. However, potential biases related to the subject matter itself were perhaps mediated by the fact that many participants were likely motivated by the advertised chance to enter a drawing to win a gift card by completing the questionnaire.

The questionnaires were distributed during the second half of the spring 2019 semester because most courses that require writing would have assigned the projects by that point. In addition, that point in the semester also gives more time for students to have visited the writing center. Because the current study is comparing student perceptions of both of these contexts, this timing was important.

The questionnaires were designed using the Qualtrics survey system, as it is available to faculty at my institution and is capable of storing, analyzing, and visualizing data. Using plain language to avoid confusion or leading, the questionnaire contained questions asking students to self-assess their experience of the three chosen subcategories of metacognition identified in Gorzelsky et al.'s taxonomy using 4-point Likert Scale responses about their experiences in writing classrooms and writing centers. The Likert Scale used strongly agree, agree, disagree, and strongly disagree as options. The questionnaire also asked for basic demographic information about academic standing, gender identification, race/ethnicity, and linguistic background. No pre-test was conducted to validate the questionnaire. However, the questionnaire was evaluated by a university research design consultant and revised before distribution.

The questionnaire items were designed to measure student's perception of three chosen aspects of metacognition from Gorzelsky et al.'s taxonomy: monitoring, control, and constructive metacognition. Gorzelsky et al. define monitoring as "evaluating one's cognition and efforts toward a project," control as "the choices one makes as the result of monitoring," and constructive metacognition as "reflection across writing tasks and contexts, using writing and rhetorical concepts to explain choices and evaluations and to construct a writerly identity" (226). These three subcomponents of metacognition were chosen from the eight identified by Gorzelsky et. al. for three reasons. The first was simplification. Attempting to study all of the metacognitive subcomponents in a single questionnaire might overburden both the participants and the research. A second reason was that constructive metacognition is a "cumulative process" (232) that "emerges from student's integration of other metacognitive subcomponents" (232). As for monitoring and control, those interrelated aspects of metacognition mirror the two major components of self-regulated learning (Nilson; Zimmerman), which has been identified as a strong indicator of academic success (Nilson).

The following items from the questionnaire prompt the participants to consider their experiences with the subcomponents of monitoring and control. The same questions were asked about writing center experiences. The pairs of questions were meant to tease out the distinction between these two related components.

> In one or more of my classes, I learned to become more aware of how I write. *monitoring*
>
> I was able to use this awareness in a different writing context, such as an assignment for another class or a workplace writing task. *control*
>
> In one or more of my classes, I learned how to determine whether my writing met the requirements of the writing assignment. *monitoring*
>
> I was able to use this method of evaluating my work against the writing requirements in a different writing context, such as an assignment for another class or a workplace writing task. *control*
>
> In one or more of my classes, I learned how to make revisions to my writing on my own. (Revision includes actions such as organizing, adding support, removing unnecessary content, adding transitions.) *monitoring*
>
> I was able to use one or more revision approaches in a different writing context, such as an assignment for another class or a workplace writing task. *control*

The following items from the questionnaire prompt the participants to consider their experiences with the concept of constructive metacognition:

> Because of my writing experiences in one of my classes, I am generally able to approach new writing tasks effectively.

> Because of my writing experiences in one of my classes, I generally think of myself as a capable writer who can adapt to new writing situations.

Because the student participants' interpretation of the questions and writing experiences were likely to vary, the questionnaire items were pointing toward different ways in which students might experience monitoring, control, and constructive metacognition. In addition, when terms like "context" or "revision" were used, examples were given to reduce the chances of participants working from vague or faulty understandings of the terms, since both of these terms are subject to varying interpretation and misunderstanding among students.

Results

The data in Table 1 (Appendix A) shows the questions about monitoring, control, and constructive metacognition down the left column. Under context, there are three variations. The first context, "Class + WC," consists of writing center clients rating their classroom experience with these indicators of metacognitive transfer. The second context, "Class," consists of non-clients of the writing center rating their classroom experience with these indicators of metacognitive transfer. The third context, "WC," consists of writing center clients rating their experience of metacognitive transfer indicators in connection with writing center sessions. Following the contexts are the percentages and numbers for each of the choices in the 4-point Likert Scale.

Students perceived themselves to be engaging in transfer as a result of classroom and writing center experiences. Across the categories, approximately 85%-95% of participants chose Strongly Agree or Agree in ranking their experience of the metacognitive transfer components. Most students surveyed do perceive themselves as engaging in the metacognitive transfer components of monitoring, control, and constructive metacognition. The data indicate trends of perceived differences among the writing center and classroom contexts and among the metacognitive components within and across contexts.

For the monitoring and control questions about awareness of process, there was minimal difference between participant ratings of the classroom and the writing center. However, in the monitoring question about assignment requirements, participants rated the classroom experience about 4% higher in the Strongly Agree category. Another difference can be seen in participant ratings of monitoring and control questions about revision, where the participant rankings of writing center experiences were approximately 3-4% higher in the Strongly Agree choice. A similar difference can be seen in participant rankings of the questions about constructive metacognition, where students rated the writing center approximately 3% higher than classroom experiences in the Strongly Agree choice.

In terms of comparing the student perception of the three components of metacognition, additional patterns emerge. In the Strongly Agree category, students always rate the monitoring experiences higher than the control experiences.

The largest difference in student ratings was not between writing center and classroom transfer experiences but between the classroom experiences of students who had been to the writing center and those who had not been to the writing center. Across the metacognitive transfer questions, students who visited the writing center rated their classroom transfer experiences 11% higher on average in the Strongly Agree category than students who had not visited the writing center. The widest difference was in the monitoring question about awareness of process, in which writing center clients rated their classroom transfer experiences 15% higher than non-clients in the Strongly Agree category.

Discussion

The data indicating that students perceive themselves engaging in the metacognitive transfer components of monitoring, control, and constructive metacognition, in both writing classrooms and writing centers, is encouraging. It suggests that faculty, writing tutors, and, perhaps, peers are facilitating rhetorical and genre awareness in students, acting as "agents of integration" (Nowacek), and the findings are consistent with Bromley et al.'s cross-institutional study of writing center clients, who perceived themselves engaging in multiple types of transfer.

Importantly, the students rated the writing center higher than the classroom for monitoring and control questions about revision. In many ways, writing centers are *revision centers*, because, more often than not, students arrive with a working draft of their assignment. Many classroom writing assignments do not permit revisions once the writing is submitted, so

the writing center is a student's chance to get feedback and implement changes based on that feedback before submitting the finished product to their professor. Without a history of revision instruction from their high school teachers or college professors, the writing center might be the primary place for students to understand revision beyond surface edits and to learn transferrable strategies for approaching revision. Although many writing centers might offer help with brainstorming and prewriting, our primary work seems to be in the business of revision. To cast writing centers as revision centers draws emphasis to the gap we fill in the lives of student writers and also to the fact that most of writing is, in fact, revision, an emphasis that might help communicate the message that writing is not over when the first draft is complete.

As with revision, the writing center might also be a logical place for students to gain the perspective needed for constructive metacognition, a component of metacognition for which participants also rated the writing center higher in the Strongly Agree category. Because constructive metacognition involves the conscious application of skills across contexts, it is significant that the writing center is physically and ideologically positioned outside of a particular classroom or course. In addition, most writing tutors are generalists, meaning that they are not required to have specific course or disciplinary knowledge. Their approach is to begin from basic genre and rhetorical awareness. In modeling these approaches and guiding students, the tutors are, in many ways, scaffolding the development of constructive metacognition. This would be especially true for repeat clients of the writing center. Considering that constructive metacognition is held as an advanced level of metacognition, one that enables student writers to reflect upon "their texts, strategies, and sense of writerly identity across a series of writing tasks and contexts" (Gorzelsky et al., 216), this finding can inform tutor education and the ways in which we explain our role within the university.

Considering the students' higher rating of monitoring experiences over control experiences, across contexts, Wardle's findings about transfer in First-Year Composition are reinforced. Wardle noted that although the students were able to see "generalizable" aspects of their first-year writing course, they did not identify opportunities to apply them in other courses. In the current study, we see a similar difference play out. Students might become aware of issues or skills because of interactions with a professor or writing tutor but, because most of the work of writing inevitably occurs when the student is alone and without resources, the control or implementation may often suffer. This finding helps to explain why writing tutors should emphasize "next steps" and revision plans for student writers.

The most striking finding of the study is that students who visit the writing center perceive themselves as engaging in more classroom transfer of writing skills. This speaks to the complementary nature of classroom and writing centers in the teaching of writing, but it also reveals that writing centers may have more indirect influence or "side effects" on student writers than we realize. This finding suggests that students think differently about their classroom experience after writing center encounters. They see opportunities for transfer. This kind of indirect effect of writing center use might be difficult to assess, but it puts writing center work into the wider context of student learning. It suggests that we should be looking at the role of writing centers in the broader ecology of student writing development.

One explanation for writing center clients rating their classroom transfer experiences on average 11% higher than non-clients, is that students who visit the writing center gain awareness of genre, rhetorical situation, and process, which allows them to see opportunities for transfer in their classroom experiences. Students who visit the writing center are already more conscientious about their writing and the need to improve it, so they are alert to opportunities for improvement in both settings. Importantly, the widest margin of difference, 15% on the monitoring question, for students who visited the writing center, is connected to process. As noted, writing centers, being mostly revision centers, focus on process and revision, so this trend may be a reflection of the influence that writing center encounters have on the ways students think about writing. Again, we have a compelling indirect effect of writing center encounters on student writers. This finding warrants additional research about the impact of writing centers on students' perceptions of their classroom experiences.

The findings of this study also raise a number of questions. The first question is whether the students' perceptions are accurate. Without seeing the writing tasks and knowing more about the individual writers' choice, we cannot be certain that they are indeed engaging in transfer. Also, because the study does not distinguish between positive transfer and negative transfer, it is possible that some of the transfer students are perceiving is problematic. For example, a student might transfer a stylistic feature learned in a creative writing course to a research paper for a biology course where it is not appropriate.

As noted in the results, there was minimal difference between participant ratings of the classroom and writing center for the monitoring and control questions about awareness of process. Writing centers typically engage with student writers in process, so this is not surprising. In terms of the classroom, the clash between expectations of one professor and another, or high school writing standards with college writing standards, might force a student into a sudden awareness of their process. Professor expectations might also play a role in the students' monitoring of assignment expectations, as they rated their classroom experiences about 4% higher in the Strongly Agree category. Students often view assignments as a matter of pleasing the professor by catering to their personal preferences about writing. It makes sense that they might think of the classroom first. However, the small 4% difference also indicates that students might consider the writing center as a place that helps with "translating" the professor's requirements (Harris).

Conclusion

The current study confirms some of the findings of prior research (Bromley et al.) that indicate university students are engaging in multiple forms of transfer but offers some distinctions and variations among sites, contexts, and types of metacognitive transfer. The data indicates that writing centers as revision centers are sites that facilitate more monitoring and control of revision-related transfer and foster the cumulative, encompassing phenomenon of constructive transfer more than classroom activity alone. However, students perceive classrooms to be the primary source of transfer related to assignment requirements. The largest difference in student perception across all types of transfer was that writing center clients more strongly perceived themselves to engage in classroom-related transfer than non-clients. This suggests that writing centers are influencing the ways student writers think about their classroom experiences. In considering differences among the transfer components studied, monitoring was consistently rated higher than control, indicating the potential need for additional instruction or tutoring to facilitate the application of transfer for students, a finding and recommendation similar to those found in Wardle's study.

The study raises several important considerations for future research. Due to the voluntary response sample and the self-reported nature of the data, this study needs to be triangulated with qualitative and non-self-reported data. In addition, because this study only focused on three of the eight components of metacognition, a more comprehensive study might compare student perceptions of those additional components in writing centers and classrooms, perhaps gaining some understanding of the ways in which they are interrelated. Because the variation between classroom transfer experiences of writing center clients and non-clients was the widest in the data set, this seems like a promising avenue for future transfer research. Both writing centers and classroom instructors could benefit from understanding more about the perspectives students may be gaining from writing center encounters and how those perspectives enable them to understand their classroom experiences differently.

Works Cited

Bromley, Pam., et al. "Transfer and Dispositions in Writing Centers: A Cross-Institutional, Mixed-Methods Study." *Across the Disciplines*, vol 13, no 1, 2016, pp. 1-16. https://doi.org/10.37514/ATD-J.2016.13.1.01 .

Cardinal, Jody. "Transfer Two Ways: Options and Obstacles in Staff Education for Transfer." *WLN: A Journal of Writing Center Scholarship*, vol 43, no 1-2, 2018, pp. 2-9. https://wlnjournal.org/archives/v43/43.1-2.pdf.

Carillo, Ellen. C. "The Evolving Relationship Between Composition and Cognitive Studies: Gaining Some Historical Perspective on Our Contemporary Moment." *Contemporary Perspectives on Cognition and Writing,* edited by Patricia Portanova et al., The WAC Clearinghouse and University Press of Colorado, 2017, pp. 39-55. https://doi.org/10.37514/PER-B.2017.0032.2.02.

Devet, Bonnie. "The Writing Center and Transfer of Learning: A Primer for Directors." *The Writing Center Journal*, vol 35, no 1, 2015, pp. 119-151. https://www.jstor.org/stable/43673621.

Driscoll, Dana Lynn., and Jennifer Wells. "Beyond Knowledge and Skills." *Composition Forum*, *26*, 2012. http://compositionforum.com/issue/26/beyond-knowledge-skills.php

Featherstone, Jared., et al. "The Mindful Tutor." *How We Teach Writing Tutors*, edited by Karen Johnson and Ted Roggenbuck, WLN: A Journal of Writing Center Scholarship, 2019. https://wlnjournal.org/digitaleditedcollection1/Featherstoneetal.html

Gorzelsky, Gwen., et al. "Cultivating Constructive Metacognition: A New Taxonomy for Writing Studies." *Critical Transitions: Writing and the Question of Transfer,* edited by Chris Anson and Jessie Moore, The

WAC Clearinghouse and University Press of Colorado, 2016, pp. 215-246. https://doi.org/10.37514/PER-B.2016.0797.2.08.

Hanh, Susan., and Margaret Stahr, "Some of These Things ARE Like the Others: Lessons Learned from Student-Inspired Research About Transfer." *WLN: A Journal of Writing Center Scholarship*, vol 43, no 1-2, 2018, pp. 10-17. https://wlnjournal.org/archives/v43/43.1-2.pdf.

Harris, Muriel. "Talking in the Middle: Why Writers Need Writing Tutors." *College English*, vol 57, no 1, 1995, pp. 27-42. https://doi.org/10.2307/378348

Negretti, Raffaella. "Metacognition in Student Academic Writing: A Longitudinal Study of Metacognitive Awareness and Its Relation to Task Perception, Self-Regulation, and Evaluation of Performance." *Written Communication*, vol 29, no 2, 2012, pp. 142–179. https://doi.org/10.1177/0741088312438529

Nowacek, Rebecca S. *Agents of Integration: Understanding Transfer as a Rhetorical Act* (1st edition). Carbondale: Southern Illinois University Press, 2011.

O'Dwyer, Laura., and James Bernauer. *Quantitative Research for the Qualitative Researcher*. Sage Publications, 2013. https://doi.org/10.4135/9781506335674

Perkins, David., and Gavriel Salomon. "Transfer Of Learning." In *International Encyclopedia of Education*. Oxford, England: Pergamon Press, 1992. https://www.researchgate.net/publication/2402396_Transfer_Of_Learning

Rose, Kathy and Jillian Grauman. "Motivational Scaffolding's Potential for Inviting Transfer in Writing Center Collaborations." *Transfer of Learning in the Writing Center: A WLN Digital Edited Collection*, edited by Bonnie Devet and Dana Lynn Driscoll., 2020. https://wlnjournal.org/digitaleditedcollection2/RoseandGrauman.html

Wardle, Elizabeth. "Understanding 'Transfer' from FYC: Preliminary Results of a Longitudinal Study." *WPA: Writing Program Administration*, vol 31, no 1-2, 2007, pp. 65-85. http://associationdatabase.co/archives/31n1-2/31n1-2wardle.pdf.

Winslow, Dianna., and Phil Shaw. "Teaching Metacognition to Reinforce Agency and Transfer in Course-Linked First-Year Courses." *Contemporary Perspectives on Cognition and Writing*, edited by Patricia Portanova et al., Fort Collins, Colorado: The WAC Clearinghouse and University Press of Colorado, 2017, pp. 191–209.

Appendix A: Table

Table 1: Comparison of student rankings of transfer components in classroom and writing center contexts

Transfer Components	Context	Strongly Agree	Agree	Disagree	Strongly Disagree
I learned to become more aware of how I write. *Monitoring*	Class+WC	61.25%	34.25%	3.5%	1.00%
	Class	46.32%	47.07%	5.41%	1.20%
	WC	46.47%	45.92%	5.16%	2.45%
I was able to use this awareness in a different writing context. *Control*	Class+WC	53.75%	39.00%	5.00%	2.25%
	Class	43.01%	48.12%	7.52%	1.35%
	WC	43.75%	45.92%	8.42%	1.90%
I learned how to make revisions to my writing on my own. *Monitoring*	Class+WC	54.50%	34.75%	8.50%	2.25%
	Class	42.56%	44.51%	11.13%	1.80%
	WC	45.78%	45.78%	5.99%	2.45%
I was able to use one or more revision approaches in a different writing context. *Control*	Class+WC	48.75%	38.50%	10.25%	2.50%
	Class	37.14%	47.67%	12.78%	2.41%
	WC	41.69%	48.50%	7.369%	2.45%
I learned how to determine whether my writing met the requirements of the writing assignment. *Monitoring*	Class+WC	51.63%	39.85%	7.02%	1.50%
	Class	44.13%	48.34%	6.63%	0.90%
	WC	40.44%	47.27%	9.29%	3.01%
I was able to use this method of evaluating my work against the writing requirements in a different writing context. *Control*	Class+WC	49.37%	39.60%	10.03%	1.00%
	Class	39.46%	48.64%	10.24%	1.66%
	WC	39.34%	47.81%	9.56%	3.28%
Because of these writing experiences, I am generally able to approach new	Class+WC	48.12%	40.85%	9.27%	1.75%

writing tasks effectively. *Constructive*	Class	38.40%	47.44%	12.05%	2.11%
	WC	41.10%	45.75%	9.59%	3.56%
Because of these writing experiences, I generally think of myself as a capable writer who can adapt to new writing situations. *Constructive*	Class+WC	49.50%	38.50%	10.75%	1.25%
	Class	39.97%	48.72%	9.50%	1.81%
	WC	42.23%	44.96%	10.08%	2.72%