"Types of Writing," Levels of Generality, and "What Transfers?": Upper-Level Students and the Transfer of First-Year Writing Knowledge

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Abstract: Transfer-focused pedagogies like Writing about Writing (WAW) or Teaching for Transfer (TFT) have claimed to better facilitate transfer of writing knowledge from first-year composition (FYC) courses. These pedagogies have emerged alongside research indicating that students in upper-level writing intensive courses often do not transfer FYC knowledge. While research has suggested that these transfer-focused pedagogies do improve transfer during subsequent semesters, research has not sought to determine whether students' long-term attitudes toward FYC knowledge is affected by these pedagogies. This article presents the results of an IRB-approved pilot survey study of what students enrolled in upper-level writing intensive courses at a small, private, Catholic, suburban university in the Midwestern United States remembered learning in their FYC courses, and whether they perceived that knowledge as having been useful for their writing. Results seem to indicate that some transfer-focused pedagogies do have significant effects on students' perceptions of the usefulness and transferability of what they recall learning in FYC. Additionally, many students identify conceptual knowledge of genre and discourse communities as useful for their upper-level writing, though often using alternative terms, particularly types, styles, forms, or formats of writing. To a large extent, this is true regardless of whether students enrolled in a transfer-focused course or not, but responses from those who experienced a transfer-focused course give indications of a more sophisticated understanding. These results might indicate that students may be predisposed to remember and connect knowledge at intermediate levels of generality that could lead to new possibilities for teaching for transfer.

In the last decade and a half, writing transfer has become a focus for teachers, scholars, and administrators (Anson & Moore, 2017; Nowacek, 2011; Yancey, Robertson, & Taczak, 2014). Much of this interest came in response to several studies that found that students do not transfer knowledge from their first-year composition classes (FYC) to writing in their majors either because they do not believe what they learned is useful (Bergmann & Zepernick, 2007; Jarrat et al., 2009), or, even when they do believe that what they learned was useful, do not make use of that knowledge because they don't feel it is necessary (Wardle, 2007). In response to these findings, transfer research has investigated how instructors might better facilitate transfer of writing knowledge, and researchers seem to agree that it is possible to more effectively teach for transfer (Moore & Anson, 2017; Yancey, Robertson, & Taczak, 2014). Supported by this research, pedagogies that claim to better facilitate transfer are gaining in popularity (see Bird et al., 2019; Downs and Wardle, 2007; Yancey, Robertson, & Taczak, 2014). Researchers, however, have not attempted to ascertain whether transfer-focused pedagogies improve students' longer-term perceptions of the value and

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transferability of writing knowledge learned in FYC. Most studies to date have focused only on student experiences and perceptions during semesters immediately following transfer-focused courses (see Robertson & Taczak, 2017; Taczak & Robertson, 2016; Yancey et al., 2018, 2019; Hoover et al., 2019). This article reports on a preliminary attempt to determine whether a transfer-focused FYC curriculum that draws from both writing about writing (WAW) and teaching for transfer (TFT) pedagogies affects what writing knowledge students recall and report finding useful for writing beyond FYC. The results of this study also have implications for the question of what writing knowledge seems to most usefully transfer, a question that Rebecca Nowacek (2019) argues "we have not, as a field, sufficiently grappled with" (p. 207). This IRB-approved pilot survey study seeks to answer the following questions:

- To what extent does a WAW and TFT course impact student perceptions of the usefulness of FYC knowledge?
- What knowledge do students spontaneously recall learning in their FYC courses?
- What knowledge do students say they have found useful for writing in the contexts of their majors and/or outside of academics?
- What implications might students' identified knowledge and perceptions of its usefulness have for the question of what transfers and how?

Review of Literature

While transfer has become an increasing focus for composition, it has also become an increasingly conflicted term and concept (see Brent, 2012; DePalma & Ringer, 2011; Wardle, 2012, 2013). As Rebecca Nowacek (2019) notes, however, "transfer continues to function as a big-tent term for many acts of connection-making" (p. 202). Most alternative terms for transfer highlight that because writing varies so significantly from situation to situation, especially across contexts, writing transfer requires the transformation of prior knowledge. Michael-John DePalma and Jeffrey Ringer's (2011) model of adaptive transfer is representative of this consensus. As they explain, "Adaptive transfer is the conscious or intuitive process of applying or reshaping learned writing knowledge in new and potentially unfamiliar writing situations" (p. 141). I will use the word transfer to mean this form of adaptive transfer unless qualified as routine transfer (the automatic replication of well-practiced knowledge).

Transfer of FYC Knowledge Cannot Be Assumed

Studies showing that students do not transfer writing knowledge from FYC (Beaufort, 2007; Bergmann & Zepernick, 2007; Driscoll, 2011; Jarratt et al., 2009) indicate that students erect boundaries between FYC experiences and knowledge in ways that lead them to dismiss the transferability of un-valued knowledge. As Linda S. Bergmann and Janet Zepernick (2007) report that in their focus group study of students at the University of Missouri, Rolla, they "repeatedly observed a tendency among students to actively reject the idea that what they learned about writing in high school or in first year composition (FYC) courses could be applied to the writing they were asked to do in courses in other disciplines" (p. 124). The authors note that this tendency seems to emerge from the perception that writing in FYC classes is fundamentally different from writing in other courses (p. 131). Susan C. Jarratt and her co-authors' (2009) study of upper-level students' "pedagogical memories" confirms Bergmann and Zepernick's results (p. 65), and Dana Driscoll (2011), in her study of student perceptions of the transferability of writing knowledge during FYC, similarly finds that "students in the study demonstrated a significant decline in perceptions towards the usefulness and transferability of FYC" (p. 9). Driscoll and Daewoo Jin (2018), reporting on a five-year longitudinal study, found that students displayed three different epistemologies: omnidirectional, valuing all knowledge; fatalist, believing that the ability to value, retain, and transfer knowledge is beyond students'

control; and unidirectional, valuing and attempting to retain and transfer only knowledge they see as directly relevant to their majors or future careers. The authors note that while students increasingly come to value all knowledge over time (omnidirectional), in the first year when students are taking FYC, most display fatalist or unidirectional epistemologies, or a combination of both. The evidence of a failure to transfer, thus, is really a failure of students to understand and value important writing knowledge, to recognize its transferability, and to recognize their own ability to influence their learning.

Transfer Focused Pedagogies

It is in response to such findings that pedagogies like WAW and TFT have emerged. These pedagogies are supported by research that has led, as Dan Melzer (2014) identifies, to a "consensus that composition instructors wishing to encourage transfer should focus on metacognitive awareness of writing processes; understanding of key writing studies concepts like rhetorical situation, genre, and discourse community; and making explicit connections to students' future college and professional reading and writing tasks" (p. 78; see also Downs and Wardle, 2007; Anson & Moore, 2017, Yancey, Robertson, & Taczak, 2014). WAW and TFT pedagogies attempt to do just that.

Writing about Writing

WAW, which makes writing studies knowledge and scholarship the content of writing courses, first garnered wide attention with the publication of Doug Downs and Elizabeth Wardle's 2007 *College Composition and Communication* article, though various WAW pedagogies had been circulating before that (see Slomp & Sargent, 2009). Since then, WAW has become both widespread and very diverse (see Bird et al., 2019). Whicker and Stinson (2020) identify four major types of WAW pedagogies: process, language/literacy, academic discourse, and context analysis. They argue that each of these different types entail different axiologies and pursue transfer in different ways, the first two focusing primarily on developing generative student dispositions, the third also seeking to teach the qualities of a general academic discourse, while the fourth "rather than just teaching *for* transfer" attempts to teach "students *to* transfer" (Whicker & Stinson, 2020, para. 40). While WAW is thus very diverse, however, all WAW pedagogies focus on some combination of reflection, meta-awareness, and teaching of declarative writing knowledge, though often differing significantly regarding which concepts and how they are taught.

Perhaps related to this diversity, WAW's claims about facilitating transfer have not yet been significantly researched empirically. Most research either details the theory and particulars of an approach (i.e. Looker, 2016; Read & Michaud, 2015) or focuses on assessing an approach's ability to generate the initial learning or development believed to facilitate transfer (see Blaauw-Hara et al., 2020; Driscoll et al., 2020; Hayes et al., 2018). There have been very few published attempts to empirically verify WAW approaches' success at facilitating transfer. Mark Blaauw-Hara, Carrie Strand Tebeau, Dominic Borowiak, and Jami Blaauw-Hara (2020) do show that not only can students in co-curricular developmental courses learn to read difficult writing studies scholarship but such courses also seem to help students develop generative dispositions like increased self-efficacy, which has been shown to be important for transfer (see Driscoll & Wells, 2011). Carol Hayes, Ed Jones, Gwen Gorzelsky, and Dana L. Driscoll (2018) also found that a context analysis WAW approach centered on genre did facilitate meta-awareness of audience and genre in student reflections. They compare results from other pedagogies and conclude that a WAW approach, or something similar, might be necessary for students to usefully grasp complex concepts like genre. Following up on these results, the same authors, this time headed by Driscoll (Driscoll et al. 2020), analyzed student reflections in comparison with pre- and post-measurements of writing performance from four institutions, three of which employed genre-focused WAW courses—the fourth similarly focusing on genre without the WAW components. They found both that writing performance improved "in terms of audience, role of sources, use of genre, contextualization, genre-driven organization, and style" (p. 89), and that a nuanced understanding of genre—like Hayes et al. (2018) postulate only courses like WAW might be able to foster—

is "the only factor that significantly correlated with change [in performance] across the whole semester" (p. 84). These studies seem to validate WAW's ability to produce learning believed to facilitate transfer, but whether or not this learning is activated in new contexts, particularly years later in upper-level courses, has not been measured.

In terms of measuring transfer, two studies do attempt to measure transfer from WAW courses (Hayes, Ferris, & Whithaus, 2017; Hoover et al., 2019). Hogan Hayes, Dana R. Ferris, and Carl Whithaus (2017) find significant transfer from a WAW-based FYC course to a required upper-level advanced writing course, but they focus more on the need to cue transfer in target learning contexts than on the contribution of the WAW course. Furthermore, the institutional context of the University of California, Davis's writing across the curriculum (WAC) program, complicates the extent to which successful transfer might be attributed to the initial WAW-based course. The authors do not fully describe the FYC course nor attempt to ascertain its impact on their results. Kimberly Hoover with her interviewees Elle Limesand, Maggie Hammond, and Max Wellman (2019), on the contrary, do explicitly focus on the impact of a WAW course. Their report on interviews extracted from a larger transfer study seems to show evidence of transfer in the responses of these upper-level students who were enrolled in a WAW course during their first year. Most of the transfer seems to relate to process strategies and rhetorical knowledge, as well as the transfer of student dispositions as these students say the course changed their relationship to writing and how they see themselves as writers in productive ways. Unfortunately, this short chapter in an edited collection does not allow for a reporting of full results, though such might be forthcoming.

WAW's claims to effectively facilitate transfer, then, while supported by scholarship that seems to show significant reflection, metacognition, and understanding of writing contexts, has yet to be rigorously tested with direct studies of transfer. WAW scholars may, however, point to the repeated transfer studies of the TFT curriculum, which, because of WAW's diversity, might be considered a WAW approach, though TFT creators Kathleen Blake Yancey, Liane Robertson, and Kara Taczak (2014) distance their curriculum from WAW. The primary difference between the two seems to be that while TFT also claims to make writing knowledge the content of the course—and does include both some scholarly readings on writing concepts and extensive "writing about writing" in the form of its reflective framework, theory of writing assignment, and key terms—it also includes major writing assignments that allow students to choose topics other than writing. Most recent descriptions of the TFT curriculum, however, have not made such assignments a key component, focusing on the reflective framework, key terms, and theory of writing assignment (Robertson & Taczak, 2017; Taczak & Robertson, 2016; Taczak, Robertson, & Yancey, 2020; Yancey et al., 2018, 2019). Perhaps the desire to distance TFT from WAW relates to TFT's more rigorous focus on transfer research, since the more structured TFT curriculum avoids the problems inherent in researching widely divergent WAW approaches. While I am inclined argue that TFT is a version of WAW, I yield to Yancey et al.'s desire that it be viewed separately.

Teaching for Transfer

Yancey, Robertson, and Taczak (2014) report on a mixed method comparative study of their TFT curriculum and two other courses, one they identify as using an expressivist approach and another identified as a course with a media and culture theme (p. 65). They argue that their results demonstrate that where the expressivist course "didn't provide a bridge to writing tasks in new contexts" and students in the themed course "defaulted—or in [the authors'] language *leapfrogged* past FYC—to draw upon what they learned in high school" (p. 130), students in the TFT course were able to "transfer intentionally and thoughtfully" to new contexts (p. 132). In later reports Liane Robertson and Kara Taczak return to this comparative study (2017) and share data from a subsequent study (Taczak & Robertson 2016), both of which support these findings. Robertson and Taczak (2017) conclude that all their studies' results show that students who take TFT courses "are able to identify which knowledge they might apply to another context in part because they understand the learning objective is to transfer, so they actively seek the opportunity

to transfer or recognize when they have transferred" (p. 100). These comparative studies seem to present persuasive evidence that the TFT course does indeed facilitate transfer, and more recent articles (Yancey et al., 2018, 2019) have reported on similarly positive findings from a multi-institutional, mixed method study of upper-level TFT professional writing and internship courses, though this study lacks the comparative element of the prior research.

All these TFT studies, however, rely largely on interviews and reflections collected during the TFT course and the semester(s) after. Without significant separation from the course, it is difficult to determine whether or not the results were significantly influenced by the research. It is at least possible that the research produces, rather than measures, some of the results. Nelms and Dively (2007) raise this possibility in reference to longitudinal studies noting "that the development they chart over time may be a consequence of their own research methods" because the methods require students to engage in significant reflection which promotes "metacognitive awareness" and "reflexivity that the students might not have developed had they not participated in these longitudinal studies" (pp. 215–216; see also Beaufort, 1999, p. 187; Jarratt et al., 2009, p. 62; Nowacek, 2011, p. 124). This does not necessarily invalidate the findings, but it does raise questions about the long-term retention of learning and ability to transfer writing knowledge, especially without repeated prompting to reflect on learning. Bergmann and Zepernick (2007) and Jarratt et al. (2009), studied the perceptions of upper-level students; therefore, to know if transfer-focused pedagogies have produced different results from those reported in such research, studies need to similarly focus on upper-level students a longer time after their first-year experiences.

What Transfers?

The question of how writing-focused pedagogies affect students' perceptions of writing knowledge also addresses the question of what students remember, value, and potentially transfer. This has strong implications about what writing knowledge students remember most and therefore what knowledge might have the greatest effect on transfer. Anne Beaufort (1999, 2007) argues transfer requires knowledge from five major domains: process, rhetoric, subject matter, discourse community, and genre, but research has not sought to verify whether each of these domains is equally influential. Nor has research of various WAW approaches attempted to ascertain what writing knowledge has the greatest impact on knowledge transfer (see Whicker & Stinson, 2020). In fact, the question of what Salomon and Perkins (1989) refer to as *amount* of transfer—which does not refer to the quantity of transfer but instead to "how much improvement (or, in the case of negative transfer, decrement) results in the transfer context from attaining some level of performance in the learning context" (p. 123)—has largely been neglected. Because the term amount is somewhat ambiguous, I will use the alternative term *impact* instead.

In addition to various domains of writing knowledge, the question of what transfers also relates to other ways we classify knowledge. Early transfer research in writing studies did focus much more on what knowledge transfers than recent research has (see Beaufort, 1999; Carter, 1990; Foertsch, 1995; Smagorinsky & Smith, 1992). For the most part, scholars have accepted a binary division of general and specific knowledge, but a few hint toward a more complex model.

Michael Carter (1990) argues that "to suggest that the knowledge that guides performance must be one of these two extremes [general or specific] is to miss its complexity" (p. 273). Anne Beaufort (1999) similarly explains that knowledge should be understood as "a continuum from general knowledge to more context specific knowledge" (p. 64). Beyond these references, however, the complexity of knowledge has not been explored, the continuum between general and specific knowledge has not been differentiated. Some scholars have, however, articulated concepts that seem to fall between those extremes (e.g., Carter, 2007; Lindenman, 2015; Reiff & Bawarshi, 2011).

Carter (2007) introduces the concept of *metagenres* as "a higher category, a genre of genres" (p. 393). He further notes, "These metagenres highlight broader patterns of disciplinary ways of knowing, doing, and

writing that may be thought of as metadisciplines, collections of disciplines that share an emphasis on certain metagenres and are constituted by the various genres within each metagenre" (p. 403). Mary Jo Reiff and Anis Bawarshi (2011) in their study of prior genre knowledge find that "it was macro-level genre types—perhaps because they are more decontextualized from particular rhetorical situations—that most often crossed domains" (p. 322), directly connecting *macro-genre* to transfer. Heather Lindenman (2015) strengthens this connection when she argues that metagenres "enable students to understand, in a new light, their own goals as writers; and, with that new framework as a guide, these categories may enable students to access prior knowledge that they may not have otherwise considered relevant" (para. 7). Metagenres, in other words, Lindenman argues, might be used to prompt "students to forge their own metageneric connections" and "to transform the extent to which students tap and transfer their genre knowledge from across all contexts" (para. 7). Such knowledge, then, helps students to group different genres in ways that can help them see connections across contexts, facilitating transfer.

Joanna Wolfe, Barrie Olson, and Laura Wilder (2014) also argue that strategies like commonly used topoi, macro-structures (organizational patterns), and conventions of naming and citation are often common to many, if not all, academic disciplines, and so similarly cross disciplinary boundaries. Such strategies seem to fall at a level of generality between local specific knowledge and the macro-level of metagenres, organizing groups of strategies across genres.

While suggestive, however, metagenres, metadisciplines, semi-general strategies, and other possible organizing concepts of intermediate generality have not been widely taken up by transfer scholars. The results of the survey presented here suggest that maybe they should be, as an important part of an effort to better account for the relative impact on transfer of different types of knowledge.

Methods

Context

This survey study was conducted during the 2019 fall semester at a small, private, Catholic, suburban university of approximately 1200 graduate and undergraduate students located in the Midwest United States. The WAC program at the university consisted of two required writing intensive courses in each major, at least one of which has to be junior level or higher. Prior to these courses, students completed, or otherwise satisfied, a required two semester FYC sequence. The majority of FYW courses are taught by part-time instructors with only one full-time tenure track assistant professor serving as WPA and occasional teaching by two tenured literature faculty.

Beginning the fall of 2016, the university piloted a new "context analysis" (Whicker & Stinson, 2020) WAW curriculum for its two-semester FYC sequence. During the first course, students read scholarly articles about transfer, reflection, discourse communities, and rhetorical situations and wrote WAW assignments typically including open letters, digital discourse community maps, rhetorical analyses, and non-WAW arguments on topics of students' choice. The second course began with additional readings on discourse community or other models of social context but primarily focused readings and assignments on genre and included assignments such as a guide to writing in college or in the students' majors, genre analyses, and a research in two genres project modeled on the TFT "research in three genres" assignment (Yancey, Robertson, & Taczak, 2014), which usually was also not a WAW assignment. Both courses included the TFT reflective framework, with frequent reflective assignments before, during, and after writing, all building toward the Theory of Writing assignment that is the introductory document in students' portfolios. As part of this framework, both courses also focused on a set of key terms: transfer, reflection, discourse community, role, audience, purpose, exigence, and genre. These courses thus were an amalgamation of a WAW and TFT course (see Table 1).

Table 1: Curricular elements drawn from both WAW and TFT pedagogies for both 1st and 2nd semester courses

WAW	TFT
Scholarly Readings (1st & 2nd)	Key Concepts (1st & 2nd)
Open Letter to Highschool Teachers (1st)	Reflective Assignments (1st & 2nd)
Discourse Community Maps (1st)	Theory of Writing Assignment (1st & 2nd)
Rhetorical Analyses (1st)	Argument—Non-WAW Topic (1st)
Guide to Writing in a Discipline (2nd)	Research in [Two] Genres (2nd)
Genre Analysis (2nd)	

Some instructors piloting the two-course sequence also chose to use a WAW approach in the university' developmental writing course, though there was no attempt to develop a common curriculum. Most instructors who taught the developmental course chose either what Whicker & Stinson (2020) identify as "process WAW," which asks students to read process scholarship and write about their own or others' processes or a "language/literacy WAW" that assigns readings on literacy and/or language and asks students to write about their prior literacy experiences—often with a translingual or anti-racist element—or some combination of the two.

Prior to the implementation of this curriculum, these courses had for several years not had much consistency across sections. The previous attempt at a somewhat standard curriculum had been based on Graff and Birkenstein's (2006) *They Say/I Say* and a thin self-published rhetoric, which a few instructors continued to use. Others had begun to use textbooks and pedagogies from other universities where they also taught. There was some consistency, however, in a primary focus on scholarly conversation and argument as well as the use of a theme of the instructor's choice. At the time this study was conducted, many upper-level students would have experienced this prior curriculum, and many others would also have been transfer students or those who had been exempted from FYC. These circumstances resulted in three subgroups: WAW-TFT students (one or more courses) and Non-WAW TFT students, who are further divided between Previous Curriculum students and Transfer/Exempt students.

Data Collection

A brief survey was administered in person to students enrolled in six WI courses in biology, education, and psychology during the fall 2019 semester. The instructors of WI courses were contacted to request class time to conduct the survey, six instructors agreed, and 49 student responses were collected. Of those students, the survey revealed that 16 had taken the WAW-TFT course, nine had taken a course using some version of the previous curriculum, and 24 had not taken any writing courses at the university.

The survey included only four questions: one that asked them to identify which writing courses, if any, they had taken at the university, the second asked which of their courses had used the WAW curriculum or WAW textbooks (in case they were not aware it was a WAW course). The third question asked respondents to identify any concepts, keywords, vocabulary, or jargon they remembered learning in FYC (whether they had taken those courses at the university or not), and the fourth asked them to identify which, if any, of these concepts, etc. they found useful when writing for other courses or outside of college. Students were given 15 to 20 minutes to complete the survey.

The survey was designed to avoid soliciting particular answers from students, allowing them to answer spontaneously only with what came easily to mind. This has the advantage of revealing the knowledge, if

any, students remember easily and identify as having been useful in new contexts, an indication of possible transfer. The disadvantage of this, when compared to focus groups or interviews like those most common to transfer research in writing studies, is that it likely misses a great deal of knowledge transfer that students have remembered and have transferred but do not immediately recall. It also yields significantly less "thick" description of student responses. For this pilot survey, the insight gained from knowing what students easily recall was privileged over a deeper assessment of students' knowledge. In this way, the research methods are less likely to have influenced students' answers.

Analysis

The data collected was analyzed both quantitatively and qualitatively. The quantitative analysis sought to determine how many of the respondents volunteered learning from their first-year courses that they had found useful for writing in their other courses, which could give a first indication of how the WAW-TFT course might have affected students' perceptions of the value of what they learned. Driscoll and Wells (2012) identify how students value knowledge and their writing tasks as a key requirement for transfer, and it is a valid assumption that the knowledge students most easily recall and say they have found useful is a good indication that they have attempted to transfer that knowledge. The first two questions also allowed for comparative quantitative analysis between respondents who had taken the WAW-TFT curriculum and those who did not, and the latter group was further broken down into those who had taken the university's previous curriculum and those who did not take any FYC courses at the university. All comparisons were tested for significance using a two-tailed z-test for two population proportions.

The qualitative data was coded using a series of codes beginning with "Initial" or "Open" Coding, which Saldaña (2016) states "breaks down qualitative date into discrete parts, closely examines them, and compares them for similarities and differences" (p. 115). In initial coding the focus is on remaining open to the data themselves to find patterns. As patterns began to emerge, "in vivo" coding was used to initially identify those patterns. As Saldaña explains, in vivo coding, or "literal coding," uses phases or words "from the actual language found in the qualitative data record" to code instances of a pattern. Finally, "Concept Coding" was used to organize findings according to specific writing concepts like genre. Saldaña explains, "Concept Codes assign meso or macro levels of meaning to data" (p. 119), and he further notes, "A series or categorized collection of first cycle codes can be condensed even further into a Concept Code" (p. 120), which is how concept coding is used here.

Limitations

Like the vast majority of transfer research, this study relies on the self-reports of students about what they remember and what they have found useful. This cannot be taken as proof of any instance of writing knowledge transfer but instead is a measure of students' memory and conscious perceptions about what writing knowledge they use or have found useful. Even in this sense, this survey intentionally sought to limit responses to the knowledge students most immediately and easily remembered in order to avoid prompting students to produce desired responses. These responses cannot be said to be all of the prior knowledge students retain from their first-year courses, much of which may have become automatic or even tacit. Despite these limitations, however, this survey follows past research in seeking "to discover what students [remember] of their early college writing instruction and to learn more about how they chart their own paths from first-year to discipline-based writing and beyond" (Jarratt et al., 2009, p. 48), and the responses to this study provide key insight both into what Jarratt et al. (2009) call "pedagogical memory" and the prior knowledge that students most easily and immediately associate with writing and that they feel has been useful to them in writing in many contexts over the course of their academic experience and beyond. Yancey, Robertson & Taczak (2014) accurately note, "prior knowledge—of various kinds—plays a decisive if not determining role in students' successful transfer of writing knowledge and practice" (p. 5). Students,

in other words, cannot transfer knowledge they don't remember or don't value. This was exactly what Bergmann and Zepernick (2007) found.

Another limitation of this study, as is also common to much transfer research and is particularly important for surveys, is the small sample size. While the 49 student responses collected is a representative sample of the students enrolled in writing intensive courses at the university where the study was conducted, results cannot be broadly generalized beyond this small private Catholic suburban institution. Further, the subgroups used for comparisons are smaller in number and might not be representative.

Because of these limitations, the results of this pilot survey can only be considered as initial indications of the effects of a transfer-focused pedagogy on student perceptions of FYC knowledge and/or the relative impact of particular knowledge on those perceptions. As indicators, however, these findings seem strong and do provide important insight that future studies should seek to confirm.

Results

Quantitative

Of the 49 student responses collected, 36, or 73%, identified some knowledge they learned in their first-year writing courses that they found useful. As Table 1 shows, WAW-TFT students identified knowledge from FYC as useful at a statistically significant higher proportion than Non-WAW-TFT students. When these results were compared using a two-tailed z-test for two population proportions (see Table 2) the value of p was less than .00001.

Table 2: Proportions of students identifying FYW learning as useful for writing in other contexts.

	WAW-TFT	All Non-WAW- TFT	Previous Curriculum	Transfer/Exempt
Identified Useful learning	13 of 16	22 of 33	5 of 9	18 of 24
Percent	81%	67%	56%	75%
p < .00001; z = NaN				

Of the 16 students who experienced the WAW curriculum, 10 only experienced the curriculum in a single course rather than the two-course sequence since these students would have taken the courses when only a few instructors were piloting the curriculum. One student had only experienced a WAW version of the university's developmental course, two had only experienced the WAW-TFT curriculum in the first course in the sequence, and seven only in the second. Six students did experience the WAW curriculum in both sequence courses. Of those six, only one failed to identify learning from the course they had found useful for writing in their other courses or outside of school.

Qualitative

Types, Styles, or Formats

Initial and in vivo coding revealed that the most commonly reported knowledge students remembered and/or perceived as useful to their writing was learning about different types, styles, or formats of writing. While this might seem to imply genre, and that was most often the case, students' use of these terms is more

complex, and this complexity might provide valuable insight on the question of what writing knowledge has the greatest impact for transfer.

Genre. More than a third (17) of the students in the sample made some reference to genre, though only two respondents, both WAW-TFT students, use the term, one of the keywords in the curriculum (see Table 3). Conceptual coding indicated that 14 more students, including four more of the WAW-TFT students, seem to refer to genre in some way. Table 2 shows what terms or phrases students used, the total number of students who used each term, how many of those students were WAW-TFT students and not, and gives an example of how each term or phrase was used—categories are not mutually exclusive.

Table 3: References to types of writing/genre, responses not exclusive

Terms	# WAW- TFT	All Non- WAW-TFT	# Previous Curriculum	#Transfer/ Exempt
"genre"	2	0	0	0
"different styles," "types," or "formats" referring to everyday genres	2	1	0	1
"different styles," "types," or "formats" referring to modes (exposition, narrative, etc.) or lists of modes	2	6	1	5
"different styles," "types," or "formats" referring to literary genres	0	5	1	4
"different styles," "types," or "formats" referring to school papers	0	1	0	1
"formats" (unqualified)	0	1	0	1
"opinion based, fact based, research based"	0	1	0	1

These results show a significant difference between WAW-TFT students and those who did not experience that curriculum. Four of the six WAW-TFT students refer to genre in ways common to writing studies, for example:

writing to a certain audience and genre, in a certain jargon

I remember my project on genre, which was about resumes, and it came in handy while creating professional resumes for internships and teaching experiences.

Writing lesson plans and academic papers have encouraged me to use prior knowledge. Outside of school these concepts help with things like professional emails.

In contrast, only one non-WAW-TFT student referred to different styles of writing (genre) in similar ways, and, in this case, the student lists literary genres and broad categories of "opinion based, fact based, research based" as well as everyday genres:

Essay, short story, punctuation, first person, voice, theme, layout, citation, quotation, work cite page, summary, paragraph format, title, subtitle, body of work, opinion based, fact based, research based, fictional, resume, blogs, chapter books, documentary.

The other ten non-WAW-TFT students refer only to modes, literary genres, etc., for example:

Types of writing/ ex. Persuasive, narrative, etc.

I have no idea! The first writing course I took was 7 or 8 years ago at a different university ... Descriptive writing was covered and persuasive writing.

types of written works (poetry, comics, short stories, etc.)

I recall doing formats, learning about jargon, using proper grammar

So, while these students identify "types of writing" as a concept they remember learning and, in most cases, value, there is a clear difference in how they understood that concept.

References to genre seem to be the most common response to the survey, but "types of writing" in the sample also included references to social context.

Context. Fourteen students, nine of them WAW-TFT students, made some reference to context (see Table 4).

Terms	# WAW-TFT	# All Non- WAW-TFT	# Previous Curriculum	# Transfer/ Exempt
"discourse"	5	0	0	0
"context(s)"	1	1	0	1
"disciplines"	1	0	0	0
"jargon"	2	2	0	2
Specific contexts (a major, "science writing," "popular writing")	2	3	0	3

Table 4: References to "types of writing" referring to context

As with genre, there are significant differences in how WAW-TFT and non-WAW-TFT students refer to context. Most, though not all, of the WAW-TFT students use writing studies terminology and/or elaborate on their experiences, for example:

Discourse has probably helped me the most because I know that I have to use certain writing styles depending on what professor I have.

the further I have progressed in my college experience, I have spent more and more time considering the context in which I am writing to do better on my assignments.

we focused a lot on writing in different academic disciplines. I have found this to be useful when writing for other courses because I can write more effectively for that given discipline.

As quoted above in reference to genre, one of the WAW-TFT students also writes "writing to a certain audience and genre, in a certain jargon," where "jargon" is used in the same way as discourse. This finding led to the inclusion of references to jargon as a reference to context for consistency and because jargon is a way that students recognize difference among social contexts.

Non-WAW-TFT students, in contrast, primarily only refer to jargon or specific contexts like their majors, science writing, or popular writing, which tend to be mentioned without qualification. The single mention of "context" by a non-WAW-TFT student is also listed casually without comment:

jargon, dialogue, context, voice, creating an outline, transitions into new concepts within writing, correct grammar, citations, plagiarism.

Other non-WAW-TFT respondents primarily linked different styles or types with a particular field or broader context like science writing:

I remember reviewing the different types of writing styles. In particular science writing.

The qualitative difference between how the WAW-TFT and non-WAW-TFT students refer to context is particularly notable when breaking down the latter group between those who experienced the previous curriculum and those who transferred or were exempt. Those who took courses in the previous curriculum made no reference to context, and made only two references to genre in any way.

Citation. Citation styles are the final way that students referred to different types, styles, or formats of writing. Only three WAW-TFT students mentioned citation in any way while 13 of the other students did so (see Table 5).

Terms	# WAW-TFT	# All Non- WAW-TFT	# Previous Curriculum	# Transfer/ Exempt
"different styles": "MLA, APA"	3	8	1	7
"citation," "citing" (no named style)	0	4	1	3
"in-text," "works-cited," etc.	1	3	0	3

Table 5: References to "types of writing" referring to citation styles

Here, non-WAW-TFT students make significantly more references to citation than WAW-TFT students. While citation might often be seen as a surface level concern along with style and grammar, however, this connection of citation to a broader conception of types of writing suggestively links it more closely with concepts like genre and context that may have important implications for transfer. In this case, it is the non-WAW-TFT students who most clearly associate citation with context and/or genre:

APA Formatting—It is useful to me because in Education courses you are required to use APA formatting when you are writing papers

I remember learning about the different writing styles. In these courses was the 1st time I had heard anything about other writing except MLA. I was able to learn about APA which has helped me within my field.

format—structuring different types of papers, citation—APA & MLA are different ways to cite work and that happens a lot!

The WAW-TFT students who do mention citation all identify both APA & MLA, but not in any distinctive ways.

Beyond the concepts that at least some students associated with types of writing, audience and rhetoric seem to be other concepts where the WAW-TFT students' responses do show an identifiable difference from the other students.

Rhetoric

Rhetoric (separate from genre and context) and audience were mentioned disproportionally by WAW-TFT students. Six students, four WAW-TFT students, make some reference to audience or rhetoric (see Table 6).

Table 6: References to rhetoric separate from genre and context

Terms	# WAW-TFT	# All Non-WAW- TFT	# Previous Curriculum	# Transfer/ Exempt
"audience"	3	0	0	0
"rhetoric"	1	0	0	0
Pedagogy or assignment(s)	0	2	1	1

As with genre and context, the WAW-TFT student responses seem more attentive to rhetoric. Non-WAW-TFT students instead refer only to assignments like rhetorical analyses or a pedagogy the student refers to as "WRD (writing, rhetoric, and discussion)." I include references to those assignments or pedagogies here because these students both remember and assert the value of this knowledge even if they do not elaborate on what they learned about rhetoric:

Rhetorical analysis assignment. As a very concrete learner, having rhetoric explicitly explained to me was very helpful.

I have used this a lot, we used live news to study W, R, D I use it constantly in each writing.

One of the WAW-TFT students similarly asserts the value of learning about rhetoric:

Rhetoric has allowed for me to be a better at creative writing as well as scientific writing for my field.

The other WAW-TFT students link audience to genre and/or context:

writing to a certain audience and genre, in a certain jargon

Discourse, audience, writing in different academic disciplines ... I have found this to be useful when writing for other courses because I can write more effectively for that given discipline.

I have learned about different forms and components ... writing for a specific audience.

This seems to be a less substantial distinction in itself, but since it is imbricated with these previous distinctions, it complements previous differences between those who experienced the WAW-TFT curriculum and those who did not. A similar slight but noticeable difference appears in references to process.

Process

Ten students, three WAW-TFT students, reference process in some way (see Table 7).

Table 7: References to process

Terms	# WAW-TFT	# All Non- WAW-TFT	# Previous Curriculum	# Transfer/ Exempt
"editing" and/or "revision"	3	1	0	1
"prewriting," "quickwriting"	2	2	1	1
"outlines"	0	3	0	3
"read out-loud"	0	1	0	1

The number of WAW-TFT and Non-WAW-TFT students here is roughly proportional to the whole sample. But, where three WAW-TFT students refer to revision or editing despite declarative knowledge of process not being a focus of the WAW-TFT curriculum, only one non-WAW-TFT respondent mentions revision or editing, but three mention outlines. As with previous concepts both groups attend to process but focus on different aspects. In terms of structure and surface level concerns, these differences are again highlighted, though this time in the nearly complete lack of attention to these concerns among the WAW-TFT students.

Structure and Surface Level Concerns

Many students mentioned structural and surface level concerns, but only one WAW-TFT student did so. Table 8 shows these references grouped by concept code.

 Table 8: References to structure and surface level concerns (concept codes)

Terms	# WAW-TFT	# All Non- WAW-TFT	# Previous Curriculum	# Transfer/ Exempt
General text structure	0	4	0	4
Parts of a text	0	5	1	4
Paragraph, sentence structure	0	3	0	3
Vocabulary	0	7	1	6
Punctuation	0	1	0	1
Voice	0	2	0	2
Grammar	1	5	1	4
Syntax	0	1	0	1
Plain Language	0	1	0	1
Imperatives (i.e., avoid/use first person, avoid contractions, etc.)	0	3	0	1

Where the references to types, styles, or formats seem to focus on students' recognition of differences, these elements seem to point to students' perceptions of shared elements across different genres and contexts. Beyond the near complete lack of references to surface level concerns from the WAW-TFT students, however, there is little to note about these responses beyond the privileging of issues like avoiding first-person and vocabulary. Most such responses were similar, for example:

Not using first person, Using research and how to implement into my writing, using higher level vocabulary and how to find this vocabulary

Thesis statement when writing an essay, when writing, always put your most interesting/attention grabbing statement at the end right before your conclusion, how to organize a draft (prewriting)

I do remember just reviewing plain language, basic grammar, development of a paper.

Another pattern that becomes evident, in all the concepts discussed so far but, perhaps surprisingly, even in relation to surface level concerns, is the paucity of responses reported from the nine students who experienced the university's previous curriculum. One reason for this is likely related to negative and non-responses.

Negative and Non-Response

Not all students remembered or, even if they did remember, stated they found anything they learned in FYC useful. 13 of 49 students, three of them WAW-TFT students, answered in this way (see Table 9).

Terms	# WAW-TFT	# All Non- WAW-TFT	# Previous Curriculum	# Transfer/ Exempt
No answer to remembered concepts or usefulness question or both	1	4	1	3
Explicitly state knowledge not useful	2	1	0	1
Learned everything in high school	0	2	0	2
Did not remember	0	1	1	0
Had not written since FYC	0	1	1	0
Credited other courses	0	2	1	1

Table 9: Negative and Non-responses

Four students who took the previous curriculum (44%) gave negative or non-responses, which is proportionally higher than either the Transfer/Exempt students (6 of 24, 25%) or the WAW-TFT students (3 of 16, 19%) or the overall 27% of all respondents. As reported above, the WAW-TFT course performed better than all other groups, but it certainly did not succeed with all students, garnering two explicitly negative responses:

"I don't think the words disclosure [discourse], primary or secondary disclosure helped me in any of my past writings. However, I can't remember much from the class"

[&]quot;Literally nothing those classes were a joke"

This should not be surprising since no curriculum or pedagogy can be expected to succeed with every student.

In summary, WAW-TFT students made proportionally more and seemingly more sophisticated references to concepts like genre, context, audience, and revision. When understood through the broad lens of "types of writing," genre and context were the most referenced concepts among non-WAW-TFT respondents as well, but by way of more problematic concepts like modes. Conversely, non-WAW-TFT respondents made many more references to surface-level and structural concerns in addition to a higher proportion of negative and no responses.

Analysis & Discussion

Transfer-Focused Pedagogies Make a Difference

The results of this study give a clear indication that at least some transfer-focused pedagogies like context analysis versions of WAW or TFT or the hybrid of the two assessed here do significantly affect these students' perceptions of the writing knowledge they learned in first-year writing courses. The qualitative results also seem to indicate that those effects extend to what these students learn, retain, and, potentially, transfer. Those qualitative results have implications for transfer research both for the broad question of what transfers and also for the possibility that students have a natural proclivity to differentiate and categorize their knowledge at multiple levels of generality, making that knowledge more available for transfer.

The Impact of Genre, Context, and Rhetoric

It seems the writing knowledge students are most likely to recall and value, and therefore most likely to transfer, is knowledge about types, styles, formats, or forms of writing, in other words, knowledge of genre, context, or citation styles. The nature of the survey does not allow delving deeply into responses, but they still hint toward important learning that might be attached to these key terms. For both genre and context, there is a significant difference between the WAW-TFT and non-WAW-TFT responses. The WAW-TFT students, when answering the question on what knowledge has been useful to them, discuss these concepts in a way that may suggest sophisticated rhetorical understandings. The Non-WAW-TFT students relate no equivalent statements.

Driscoll et al. (2020) found a similar difference between student reflections that showed nuanced understandings of genre, which they define as "an understanding of how a genre's conventions help to achieve its purpose(s) and meet audience expectations" and simplistic genre awareness, "a focus on conventions" (p. 80). Also in parallel with results here, they found that evidence of nuanced understandings of genre co-occurred with evidence of audience awareness (p. 86) and "reflections on 'engaging' and 'recognizing' conversations or discourse communities...suggesting a link between discourse communities (frequently disciplinary) and nuanced genre knowledge" (p. 89). Driscoll et al. also found that references in student reflections to "structural components of writing and [general] procedural knowledge "were shown to more frequently co-occur with simplistic genre codes" (p. 87), which seems to compare with how non-WAW-TFT students seem to display both more simplistic understandings of genre and to focus more on structural components. These results, then, seem to imply both that genre, context, and audience awareness might be among the concepts that have the greatest impact on transfer and that making writing knowledge of these concepts the content of a course, as context analysis versions of WAW and TFT courses do, does positively influence students' understanding and perceptions of writing even years afterward. This might lend further weight to Hayes et al.'s (2018) findings that perhaps such a course is necessary to teach such concepts. This might be because such courses at least lay the groundwork for "the self-conscious awareness of disciplinary writing so central for advanced genre learning" and thus writing overall that Mary

Goldschmidt (2017) notes students experience through double majors or minors and enculturation in their disciplines (p. 133). The results of this study might also indicate that such courses can do even more to help students by attending more not only to genre and other concepts as "construct[s] that [students] can observe and analyze in a variety of contexts" (Goldschmidt, 2017, p. 128) but also to differentiated knowledge of those concepts at multiple levels of generality.

The Differentiation and Organization of Knowledge: Intermediate Generality

The fact that so many students, WAW-TFT or not, volunteer knowledge about types, styles, forms, or formats of writing might have important implications for transfer and pedagogy. Whether students seem to refer to genre, context, or even citation, they seem inclined to differentiate and organize their writing knowledge according to types. This begins with specific genres and or with learning about genre on a theoretical level, but students also seem to gravitate toward categories of knowledge of "intermediate generality" (Perkins & Salomon, 1988, p. 30). When students refer to concepts like the modes of exposition, narrative, argument, etc., when they invent categories like "opinion based, fact based, research based," or even when they focus on the differences between citation styles like MLA and APA, they are not only attempting to account for the differences they see among contexts, they are also organizing their knowledge into categories of intermediate generality in order to find similarities that will allow them to transfer that knowledge. This seems to validate Lindenman's (2015) argument that meta-genres serve as important ways students group their knowledge and experiences that make the connections necessary for transfer possible. Lindenman (2015) reports that her students tended to organize their knowledge based on the purposes of their writing, but that does not seem to be the case in this study where students rely more on macrodisciplines like "scientific writing" or the modes, which are more problematic but do confirm that students will group their knowledge at this macro-level of generality. Because the essence of transfer, as Robert E. Haskell (2000) notes is "the seeing of similarities" (p. 25), these types of knowledge of intermediate generality are critical for transfer. The results of the survey study reported here suggest that students may be predisposed to organize knowledge this way. This predisposition should not be surprising because, as Haskell explains, "our nervous system is a hard-wired instrument of classification, an activity that is dependent on transfer" (p. 191). Teachers, then, might find ways to take advantage of this proclivity.

Students also seem to value organizing knowledge at what I will call the "meso-level" of generality, at which, rather than organizing genres by macro-genre, students instead extract strategies that cross contexts. This is the level at which Wolfe, Olson, and Wilder (2014) found that academic topoi and macro-structures are present in many, if not all, academic disciplines. These strategies and this level of generality correlate to the responses that focus on similar structural elements and even issues of style. These students are finding ways, though sometimes problematic ones, to organize their knowledge for transfer, identifying strategies that they feel apply to many writing situations. Reiff and Bawarshi (2011) use such a tendency to extract strategies from genres as the basis for their classification of some students as "boundary-crossers," or those likely to transfer their prior knowledge, while those who focus only on transferring whole genres they label "boundary guarders," further indicating that students' proclivities to organize knowledge at all levels of generality might be essential for transfer (p. 319).

Overall, the tendency of students to remember and value knowledge about different types, styles, forms, and formats of writing has implications for transfer and transfer-focused pedagogies as well as writing instruction across the curriculum. It focuses attention on the very essence of transfer as the identification of similarities as well as a possibly neurological transfer proclivity to think in terms of categories of similarity at multiple levels of generality. If instructors want to more effectively facilitate transfer, they should probably engage students with writing knowledge at all levels of generality. For both first-year writing courses and writing instruction in the disciplines, this highlights the importance of engaging students in

exploration of their prior knowledge. In first-year courses this could promote more forward-looking transfer by helping students generate a wealth of differentiated knowledge in ways designed to facilitate transfer. In disciplinary writing courses, instructors can help students pull forward such knowledge through backward-looking transfer as they encounter discipline specific writing practices. This study suggests such efforts might help students more effectively transfer their knowledge to more efficiently learn new writing practices in the disciplines.

Conclusions

This pilot survey study seems to indicate that some transfer-focused writing courses can positively affect student perceptions of the value of the knowledge they learn in those courses. Such a course can also positively affect what knowledge students remember and find useful as well as the depth and sophistication of that knowledge. More broadly, the results of this study indicate that transfer scholarship and transfer-focused pedagogies should attend to writing knowledge at multiple levels of generality not just local specific knowledge and theoretical meta-awareness. These findings have significant implications for future research. All of the findings from this pilot-survey require further confirmation, but a few lines of investigation beyond the findings presented here might be of particular interest.

Comparative Research

Wardle and Downs (2018) note that writing studies practitioners "value difference and thus are uncomfortable with the idea of privileging dominant points of view" (pp. 125), which would include points of view about what knowledge should or should not be taught in writing classes. The question of what writing knowledge has the most impact for students' future writing, however, unavoidably suggests that some things we know about writing might have a bigger impact than others. Writing transfer pedagogies also cannot avoid calling attention to the issue of both what we consider the measure of success in teaching writing and what approaches to teaching can best produce that success. It would, however, be a mistake to simply return to old arguments about problematic categories of past taxonomies. We need new ways to discuss how we teach and why. We also need quality replicable, aggregable, data driven research to support our claims regarding what knowledge has the most impact and what pedagogies best teach that knowledge. The only way to do that is likely large scale inter-institutional comparative research. The need that the research be comparative comes from the difficulty of measuring something like transfer. The study presented here as well as previous scholarship (Hayes et al., 2018; Robertson & Taczak, 2017; Taczak & Robertson, 2016; Yancey, Robertson, & Taczak, 2014), however, indicates that comparative research reveals differences that are indicators of transfer or transfer potential. With a better model of pedagogical difference and substantial research, the field will hopefully be able to more productively attend to "best practices."

Types of Knowledge and Levels of Generality

I think the most exciting avenue of research concerns identifying and investigating writing knowledge at multiple levels of generality. The first step toward such investigations is a new model of knowledge types that fills in the gap between local and fully general knowledge. The categories of meso and macro levels of intermediate knowledge that I've begun to articulate here might provide a starting point. With such a model, the next step is to identify not just the knowledge domains that have the most impact on transfer but also how those domains can be leveraged at all possible levels of generality so that teachers can benefit from students' proclivity to organize knowledge at those levels.

This is particularly true for instructors in the disciplines who might benefit greatly from helping students to articulate their prior knowledge at these varying levels of generality as they introduce them to new genres and knowledge. It should be assumed that students will attempt to connect the writing assignments they encounter to their past experiences by categorizing them, and instructors will see better results if they

participate in such categorizations. Such efforts should entail significant comparison of genres, yielding not only effective categorizations that help them to draw on useful prior genres but also appropriate extracted meso-level knowledge that can be mined even from prior genres that might be quite different from the new assignment. Time spent on such efforts might save a great deal of time and frustration later for both students and instructors, and it will provide opportunities for instructors to emphasize the values and conventions particular to their disciplines.

Transfer

Finally, the concept of levels of generality has the potential to reshape how we think about transfer, which has so far been shaped by the binary model of general and specific knowledge. Despite all attempts to redefine transfer or to offer alternative terms, the field has not yet attempted to develop a model of transfer that highlights mechanisms of transfer between the intense and prolonged training that leads to routine transfer and the teaching of theoretical concepts and conscious reflective, metacognitive awareness that might allow for adaptive transfer. The results of this modest survey suggest that scholars might consider possible middle-roads for transfer.

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