CHAPTER 1.

PLANNING, TINKERING, AND WRITING TO LEARN: A MODEL OF PLANNING AND DISCOVERY AS COMPOSING STYLES FOR PROFESSIONAL ACADEMIC WRITERS

Dana Lynn Driscoll
Indiana University of Pennsylvania

Abstract: *This chapter explores three composing styles among expert academic writers: planners, discoverers, and hybrids. Planners outline extensively before writing, discoverers write to understand and discover their ideas, while hybrids combine both approaches. Using Google Draftback for detailed analytics, I conducted a longitudinal study with in-depth interviews, writing journals, and survey data from 198 scholars. The findings reveal that writing style preferences significantly influence initial engagement, drafting, and revisions. This study offers insights for supporting graduate students' development in academic writing, proposes new methodologies for studying writing processes in real time, and considers how these composing styles can inform mentoring practices.*

Over 50 years ago, Cowley (1958) theorized that successful writers had two different "writing styles." Based on famous musical composers, he identified "Beethovians" as writers that dove right into their writing and did not engage many invention strategies and identified "Mozartians" as writers who spent extensive amounts of time engaging in invention, which may include developing various kinds of outlines, lists, or other prewriting to help them draft (p. 8). A similar concept is known in the creative writing community: "planners" and "pantsers." Planners are those who meticulously outline their characters and plots in advance while some writers fly by the seat of their "pantsers" and leave the story to unfold as they write (Brooks, 2011). It was these two concepts—the Beethovians and

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the Mozartians—that motivated the present article. In designing a longitudinal, exploratory study of expert writers' composing processes, I was curious if these "writing styles" applied to those who were writing for publication in the field of composition studies. My study used a combination of direct observation of writing process and self-reported techniques to explore the writing processes of expert participants as they composed an article or book chapter for publication. Observations were done through a program called Google Draftback, which creates both videos of composing and writing analytics, while I employed writing journals and interviews to hear from participants firsthand. While I originally saw this question about Mozart and Beethoven as a fun "aside" to engage with my participants in our initial interview, multiple sources of data in the study showed that Cowley's initial insights had merit and demonstrated a fundamental distinction among expert processes. That is, even though all expert writers produced a publication, some writers align more with planning out their work in advance before and between composing, and others align more with discovery.

Thus, this article explores what I call planning, discovery, and hybrid composing styles through case studies of three expert writers and a larger-scale survey of those writing for publication, all within the field of composition. Through in-depth exploration of three writers' interviews, journals, and recorded textual data, I offer interviews, writing analytics, and direct evidence of planning, discovery, and hybrid styles. This article demonstrates that composing style is a key distinction that shapes much of writers' early engagement with texts, ideas, and invention, and it also directly shapes how their writing process unfolds on the page. After presenting this rich case study data, I present data from a large-scale survey of 198 members of the field of composition to describe the prevalence of these styles and demonstrate that composing styles largely are a matter of a writer's preference rather than tied to identity or institutional position. The chapter offers several key contributions and implications: First, it offers a model of operationalized definitions and features for the three composing styles, tying these with both recursive writing processes and writing to learn. Second, it offers a discussion about how understanding these styles may better support graduate students' entry into professional academic writing and includes a list of suggestions for those working with graduate students. Finally, the chapter offers a novel methodology using Google Draftback as a way to directly study writers' composing processes, opening up opportunities for future writing-process research.

BACKGROUND

Exploring the composing styles and writing processes of expert writers requires a consideration of three bodies of related work: the writing-to-learn movement

within composition, the existing interdisciplinary literature on expert writers, and research on expert writing processes. Through this discussion, I argue that we will see that, while rich information exists on expert writers and self-reported discussions of writing processes, the field needs more direct observational studies of writing processes and explorations about how expert academic writers engage in discovery, invention, and the production of texts.

Cowley's (1958) "Beethoven" writers are essentially using what compositionists know as writing to learn. Fulwiler and Young (1982) differentiated between "writing to communicate" (transactional writing) and "writing to learn" (p. x), the latter being where individuals would use writing as a tool to deepen understanding and generate new ideas. These differences between writing to communicate and writing to learn were borne out by a wide body of early research in composition (Emig, 1977; Langer & Applebee, 1987) that confirmed that students of all ages and in diverse settings wrote their way into understanding. Writing to learn has a long history within composition, and unlike many other early theories of composition, it has had tremendous staying power because it appears to be a consistent truth across writers and contexts. Drawing upon this body of work, Bean (2011) argues that writing to learn should be at the center of writing instruction in higher education and across the disciplines. Recent studies continue to support writing to learn as an empirically validated construct, including writing's capacity to aid long-term memory (Silva & Limongi, 2019) and writing's ability to support learning content in a variety of fields (Henry & Baker, 2015; Klein & Unsworth, 2014). While ample evidence exists about the efficacy of writing to learn in secondary and undergraduate education across the disciplines, two questions arise: How might this concept function for expert writers engaging in writing for publication? In what ways do expert writers use writing to discover or deepen their purpose and thinking?

The literature on expert writers offers limited insights into how the writing-to-learn process may work with those engaged in writing for publication. Drawing upon the work of Flower and Hayes (1981) as well as his own experiments, Kellogg's (1994) work indicates that experts use a combination of planning (a range of invention strategies), translating (shifting ideas from the mind into prose), and reviewing (re-reading the text and making revisions and edits). Kellogg argues that these three activities are not linear; they are recursive. Thus, writers may cycle through rounds of prewriting, drafting, and revision as they engage with their text. Further, he notes that planning, translating, and reviewing can work together to help expert writers develop more sophisticated ideas and texts. Beyond these concepts, Kellogg's (2006) extensive overview of the research on professional writing expertise indicates that expert writers also manage a range of other considerations while composing: appropriate use of

language, solving problems, managing the cognitive load, addressing specific domains (contexts and rhetorical situations), engaging with long-term memory, understanding audiences, and managing emotional challenges associated with writing (pp. 391–395). Further, Scardamalia and Bereiter (1991) recognized the importance of an expert writer deeply engaging in ongoing ways with both the content of the problem and the rhetorical situation in which they were writing. As we can see from this body of work, writing recursively and deepening purpose are possible aspects of expert writers' processes, although this body of work does not largely address how individual composing style preference may apply.

Another area tied to the present study is a recent body of work exploring the writing habits and writing experiences of faculty expert writers within the field of composition (Gallagher & DeVoss, 2019; Söderlund & Wells, 2019; Tulley, 2018; Wells & Söderlund, 2017). Wells and Söderlund (2017) interviewed 20 faculty who were successful in academic publishing within the field of composition and explored what habits supported their success. Again, the theme of recursivity emerged, this time focusing on feedback. Professional writers engaged in multiple rounds of revision based on feedback, both by trusted peers who would offer feedback prior to submission and then feedback based on blind peer reviewers and journal editors—this latter kind of feedback helped deeply shape drafts and lead to successful publication experiences (p. 148). Similarly, Tulley (2018) selected accomplished members of the field who had outstanding publication records and interviewed them about their process. One of Tulley's key findings was that faculty cultivate invention strategies that assist them with organizing their ideas and discovery and also recognize the importance of persisting through difficult parts of the writing process (p. 21). These studies offer yet another piece of compelling evidence that writing to learn strategies may be key for expert writers, although the field does not yet have a model of what those processes may look like. Further, while interview data forms an important contribution in our understanding of expert academic writers' processes, without systematic direct observation of expert writing processes, we have an incomplete picture of the nuanced writing processes that experts use to be successful.

METHODS

The study was designed to explore, define, and provide a model of composing styles that expert academic writers from the field of composition employ when writing articles. The data from this study comes from several data sources: a longitudinal, exploratory study of the expert writing processes of professional academic writers in composition and a survey of a broader range of members of the field of composition studies.

Longitudinal Process Study

After gaining IRB approval in Fall 2018, I put out a call for participants for a longitudinal writing process study. My call targeted those who considered themselves expert academic writers in the field of composition and who had considerable publication experience. Ten participants agreed to participate. A condition of participation was that participants would be starting a new work for the study and that they would compose their article or book chapter in Google Docs. They would keep a writing process journal that they would update each writing session, and they would be interviewed at least three times for 60 minutes each during their writing process. Key to this study was the combination of self-reported data (interviews and writing process journals) and direct observational data of their composing process through a Google Doc plugin called Google Draftback.

The Google Draftback plugin is an extraordinarily useful tool for writing process research. Google Docs already tracks each keystroke and change to a document that is made over time. The Google Draftback plugin renders these changes into a video that can be played back at a later date, allowing anyone with access to the document to directly observe how the text is shaped over time. The plugin also produces a range of useful analytics, including tracking when and how the document was modified, the changing size of the document, where in the document changes were made, hours spent writing, and visualization of the changes in the document.

Each participant in the study was interviewed three times via Zoom for 60 minutes. In the first interview, I asked them their preference of composing style using Crowley's (1953) terms. I also asked them to discuss their scholarly identity, research trajectory, typical writing process, and specifics of the book chapter or article they planned to write. The second interview occurred around the 70% drafting mark, where we discussed aspects from their writing journals, how the purpose of the document had shifted, and aspects of their composing process. The final interview happened after they had "finalized" the text and it was submitted for publication. In this interview, I offered them screenshots of the writing analytics from Google Draftback, we discussed more aspects of their writing journal and process, and we discussed the nature of writing expertise. Because I was engaging in analysis as the study continued, I presented initial findings to participants, which then we could discuss, and they could elaborate further.

Analysis of this rich set of data involved watching the process videos and taking detailed notes, comparing videos to the writing analytics and writing journals, coding interviews and writing process journals, and working to come to an understanding of how the direct observational data aligned or diverged from the

self-reported interview data. Additionally, all three case-study participants had an opportunity to read and comment on this draft before submission, allowing for further member checking.

Due to the longitudinal nature of the study, at the time of writing, six of the participants—all in subfields of composition—had completed the study while the remaining four had completed either one or two interviews; some participants' writing processes were delayed due to the onset of COVID-19. I chose three case study participants from the six who had completed the study at the time of writing. Case study participants were selected on several criteria. First, they had completed the study at the time of drafting this article. Second, in initial interviews they indicated a preference for one composing style, and they enacted that style throughout their drafting. Additionally, all of these writers were working on book chapters that were using historical and textual data as their primary reference. Thus, they had a number of useful points of comparison. As a member check, all three case study participants read the draft of this article and were provided the opportunity to offer feedback on the representation of their writing process and their scholarly identity.

I will note here that it is possible that the metagenre (Carter, 2007) that the writer is working in may be a factor in how composing styles unfold. A participant who is working on an empirical, data-driven article may engage in more discovery during analysis than a participant working with textual or historical sources. Thus, selecting three participants working in a similar metagenre and drawing upon a similar body of evidence was important.

Survey

After engaging in two years of data collection for the ongoing longitudinal study, and after initial conversation with my case study participants on what I was now calling "planning" and "discovery" composing styles, I developed a large-scale survey to better understand the scope and prevalence of composing styles among members in the field of composition. After pre-testing and IRB approval, the online survey (hosted on Qualtrics.com) was distributed on three listervs: WPA-L, W-Center, and Next-Gen. Calls for participants were sent out in early October 2020 and then a follow-up call was sent two weeks later. The survey remained open for 30 days.

The survey was completed by 198 individuals associated with the field of composition who had either engaged in writing for publication or were starting to write for publication. This included 58 (29.3%) identifying as males, 128 (65.6%) as female, 3 (1.5%) as transgender, and 8 (4.0%) who preferred not to specify. Participants identified as Latinx or Hispanic (4, 2%), Native American

(3, 1.5%), Asian or Pacific Islander (10, 5.1%), African American (8, 4%), and white (173, 87.4%). Participants came from a range of statuses at the university, including graduate student (40, 20.2%), adjunct or part-time instructors (8, 4.0%), full-time non-tenured instructors (29, 14.6%), tenure-track faculty (33, 16.7%), tenured faculty (30, 15.2%), individuals in various administrative roles (44, 22.2%), upper administrators (10, 5.1%), and retired faculty (10, 5.1%). Participants had a wide range of teaching experiences, with many teaching full loads or having loads split between administration and teaching.

Submitted surveys were included in the analysis as long as the participant had answered at least half of the survey items. The survey was analyzed in SPSS; frequencies and descriptive statistics were calculated for demographic information and questions about expertise and composing styles. After ensuring the normality of the data, a Spearman's Rho correlation was calculated to understand what, if any, relationship there was between differences in demographic information, institutional affiliation, and expertise and composing style.

Positionality

My positionality as a researcher is someone who is curious about how different people compose, while recognizing my own nuances in composing due to being neurodiverse with dyslexia. As a writing center director who supports graduate writers, and as a faculty member teaching doctoral classes in dissertation writing and writing for publication, I grew curious about how to best support students' writing processes. Perhaps due to my own dyslexia, I've always allowed myself to be as messy and unstructured as I needed to be, and I do not stress about it because my brain works differently. But when I would talk to my graduate students, they were often distraught when they felt their writing processes were "messy" or "unstructured" and frustrated about not having a clean, linear writing process. In the end, it seemed that a variety of approaches yielded successful publications, so I wanted to better understand this phenomenon.

Limitations

Even with the technology of Google Docs and the interviews and writing journals, I am certain that there were aspects of the case study participants' writing processes that I could not capture—in particular, it was difficult to capture what happened between sessions beyond the limited information provided in journals and discussion during interviews. Due to the nature of writing processes over a period of years, I'm not sure that there would be a better way to capture this information at a distance, but this limitation is still worth noting. Further, my

primary analysis of the longitudinal case studies is based on a small number of participants due to the size of the dataset provided by Google Draftback and the resulting intensity of the analysis. Further research is needed to understand the prevalence and features of these composing styles.

RESULTS: PLANNING, DISCOVERY, AND HYBRID CASE STUDIES

In initial interviews, I asked my 10 expert writers about Cowley's "Beethoven" and "Mozart" styles. All writers immediately grasped the difference and expressed preference in the direction of one of these two styles of composing. Five participants indicated a strong preference towards discovery, two participants towards planning, and three participants towards hybrid approaches (a similar breakdown in approach can be seen in the survey results, below). In what follows, I offer three case studies of successful academic writers who clearly demonstrate aspects of these composing styles: Alice offers a model of planning, Dan offers a model of discovery, and Ryan offers a hybrid discovery/planning process.

Alice: Sticking to the Plan

Alice[1] is a senior scholar who has widely published in the field of composition studies and whose impressive CV includes multiple books, well-cited articles, and editorships. Alice retired several years before the study began from her position as a full professor of writing and rhetoric at a public research university. In her retirement, she has continued to work on scholarly publishing projects, including writing articles, books, and editing a book series. I followed her through composing one chapter of her newest book, *Literacy Heroines*, which focuses on exploring historical female figures who sponsor or employ literacy in meaningful ways. The chapter I followed her through was titled "Ida Tarbell (1857–1944) and the Muckrakers" and specifically explored the work of a progressive era journalist who rode the wave of major technological developments and became both an exemplar and sponsor of literacy.

Alice described herself as an "orderly, organized writer" and noted that this did not change in retirement, although she now has more time to devote to writing. In fact, she said, she writes approximately three hours a day in a typical week. Throughout the interviews and reflected in her process, Alice demonstrated a strong preference for a planning composing style and emphasized how "the plan" defines what she writes and what order she writes it in. After our first

1 Because this was a study of expertise, participants had a choice to be identified by name with real titles or pseudonym. All participants chose to be listed by their real name.

interview, she sent me an outline that described her plan further for each chapter. Alice's writing plan was supported by extensive pre-research, where she examines various historical sources to craft a narrative of each literacy heroine and then uses a board in her home office to capture important information needing to be written into her drafts—thus, she's engaged in an extensive invention beyond the page. In discussing how to manage the cognitive overload associated with advanced literacy, she said:

> I think this goes back to the business of having a plan. So, I'll be reading along in a biography and I come across some evidence. A lot of the people I'm looking at have written a lot and have had a lot written about them. … The deal was to extract all the stuff that I looked at. … So, how I deal with the cognitive overload is by having a plan and by staying pretty focused on the plan. I find as I find things as I do the research, as I encounter materials or talk to scholars. … But it's all tied in with the plan and the plan may or may not be explicit. It may or may not be—sometimes I do actually write out an outline. Often, it's very informal like 1, 2, 3, 4, 5, these are the things I'm going to discuss. But it's really about kind of sticking to the plan.

Alice further described how "the plan" manifests in her drafting process:

> I tend to jump in and start writing, because I have this plan. So, I will probably start this chapter by writing an introduction about just kind of a basic sense of why this person qualifies as a heroine. I'm looking at this list, I have a list of issues, historical issues, it's right up there in my bulletin board.

As we'll explore in the "writing process" section below, this commitment to planning results in a much more linear drafting process for Alice, where she often begins where she left off and writes in a linear fashion largely from beginning to end.

Dan: Discovery and Writing to Learn

At the time of the study, Dan was an associate professor of English and also serves as the writing center director at a public mid-sized university. He had published a number of articles, book chapters, and textbook materials; he also had been awarded several grants. His research focuses on writing centers, media studies, and cultural studies. Like the other case study participants, Dan was

building his current book on a series of articles and projects that he had recently finished. I followed him as he drafted the introductory chapter for his book, tentatively titled *Writing Centers Beyond Writing*, which focuses on issues of ambience, embodiment, and affect in writing center settings. As he introduced his project, he noted:

> I don't know if this is one chapter or if I'm going to have to make two separate ones. This summer's project is an IRB and really just diving into the literature. My plan is that I'm going to start prewriting a bit in the summer as well and just trying to determine if this is one or two chapters.

Dan recognized that he needs to write to discover the nature of his chapters in the book manuscript. This demonstrates a strong alignment with a discovery mindset and accepting writing to learn as part of his process.

Dan's writing process for this project was similar to his previous works, where he had worked on multiple documents at once including one to two main text files and additional files with discarded-for-now-text, and comments to himself. He commented,

> Again, I had to laugh when you write Beethoven cause honestly I'll probably be writing sections of it just to help me think about it in the summer or just a little bits of commentary to myself. I usually have four Google Docs open for a project where one is a clipboard, one is one section, one is another section, one is a guide that I'll constantly use.

Dan described himself as a writer who composes his way into understanding through the use of these documents and uses writing simply to initially think through ideas; he pointed out that some of this will end up in his final publication, but some writing will not.

When asked about his composing style, Dan firmly indicated that he ascribes to the discovery (Beethoven) style:

> Yeah, I would say the Beethoven … some of these chapters have been—that I'm working on for this book—had been literal years in the making as I've been working on other stuff and just thinking about it. … As I've gotten further along my career and farther away from grad school and remembering anything that got me to this point, it's Beethoven in that well, I want to get writing so at least I have some sense of where I'm going and I'll do the research and I'll do the reading as

> I go because it might let me see things a little differently. Honestly, having seen several friends in grad school get afflicted with that planning paralysis like waiting for that perfect moment reading everything but not generating anything. I'm a pragmatist in that regard.

Dan's discovery model differs from Alice's model of planning.

Ryan: "Tinkering" and Hybridizing Planning and Discovery

At the time of the study, Ryan was an associate professor of rhetoric and composition at a large public state institution. In addition to several edited collections and special journal issues, Ryan had also published numerous article manuscripts. His core work focuses on public rhetoric, both historical and contemporary, and, given the U.S. political climate during the Trump presidency, he's focused his recent work on Nazi and fascist rhetoric, demagoguery, and fake news. In addition to his academic scholarship, he has also written a variety of pieces on these areas for major news outlets. Like the other two case study writers, Ryan's current writing project stemmed from the project he was previously working on: a book chapter on fascism in the United States. Ryan started the project with what he called an "abstract proposal" and noted that:

> I don't know exactly what my thesis is yet but I have been working on and reading about and preparing to write this thing for the better part of a year and a half. By the time I sit down to write it I will have spent a fair amount of time in my own head working on it.

Ryan engaged in considerable reading and thinking outside of actually sitting down to write. He said:

> I do tend to sort of stew on things in my mind before I write things down. I've been collecting and reading articles for a long time. I have a whole folder, various things from popular press and from scholarly stuff. I jot notes all over the place. So, I just have random notes which are not ideal because oftentimes I don't remember what they refer to.

When asked about his composing style, Ryan indicated he uses both planning and discovery:

> I think it's sort of a combination. I spent extensive time planning, inventing, reflecting all of those things, and then I dive

> right in and have multiple drafts and messiness. It's sort of the worst parts of both. All the preparation time and none of the focus…. I'm sort of smack in the middle of those things.

He noted that it depends, in part, on what he is composing, "I think that there are times that I have things that I very definitely planned to say and that come out really quickly and really easily."

However, in later interviews, Ryan and I returned to this issue of planning and discovery after seeing the progress of his own draft. He described a process he calls "tinkering," which he characterizes as:

> Sort of the way that I conceptualize it is like Mine Sweeper. I go and I click on one box and it will clear one thing and then I know that one's close to this and I click on that and then there's this whole big thing. … If I can just knock a little bit at a time then oftentimes big parts of things will clear up sort of out of the blue. But it happens mostly if I'm consistently doing the tinkering. But if I step away for too long or if I don't pay attention to it then often those big clarifying moments don't happen as quickly or as easily.

One of the aspects that is striking about Ryan's process is how he engages with the text frequently—sometimes five or ten different moments across the day, continually returning to his text and making small changes. He described this as a textual engagement technique: "It's better if I can just do a little bit every day and just to stay again involved and engaged." He noted that he uses more discovery early in the draft: "But the first 1,000 words or the first section up to the main argument for me is always the hardest part. It's always the part that takes the most tinkering to get to. It still works through all of these sections most of the time." Tinkering of the introduction in particular, which includes his purpose for writing, is critical for Ryan's process, which will also be reflected through his writing analytics, below.

Writing Timeline, Documents, and Writing Sessions

This section demonstrates how composing styles are not just self-reported preferences, but directly shape the drafting processes for Alice, Dan, and Ryan. Table 1 provides an overview of some key aspects of their composing gathered by the Google Draftback program. For this study, Alice worked in one document exclusively. Dan worked in three documents, including an early document that he worked on and compiled ideas in for 21 months (with the most extensive work

during summers/breaks and into the first part of his sabbatical). When his sabbatical began, he started composing a second document and pasted large chunks from document 1, then extensively reworked them along with creating a third file that contains text he cut and pasted that he was not actively using. Finally, he cut and pasted the entire file into a "final" file, where he added references and engaged in light editing. Ryan worked in two documents, beginning with an initial draft where he composed the first 4,500 words. After a major shift in ideas, he transitioned to a second document where he completed the draft. The data in Table 1 compiles data from all documents each writer worked on during the study.

A "writing session" is defined by Google Draftback as any work on a document without more than a 10-minute gap. If a writer were to work on a document, then return to it 15 minutes later, or even pause to read a text for more than 10 minutes, that program would count that as a new writing session. Changes in a document (what Draftback defines as "revisions") indicate how many times the writer made additions, revisions, or deletions to the text.

Table 1.1. Time, Writing Sessions, Days, Changes, and Wordcount for Three Writers

Writer	Total Hours Logged in Google Docs	Total Writing Sessions	Total Changes in Document(s)*	Total Days when Writing Tool Place	Final Wordcount of Chapter
Alice (Planning)	21 hours 32 minutes	71	41,321	30	9,074
Dan (Discovery)	36 hours 41 minutes	146	117,516	48	12,182
Ryan (Hybrid)	51 hours 39 minutes	98	76,633	23	6,819

As Table 1.1 demonstrates, Alice worked on her text directly less than the other authors, both in terms of writing sessions and in terms of changes in her document. However, Alice's interviews and journal entries made it clear that she also devoted considerable time away from her draft reading, taking notes, and planning, none of which are accounted for in her total hours logged. On the other hand, Dan indicated that he had to write his way into understanding from the very beginning, and this was reflected in the amount of writing sessions and total changes he produced. Ryan's understanding of his purpose and goals shifted in significant ways several times, resulting in changes in his plan and shifting him into discovery mode. This shift is reflected in a moderate level of writing sessions and changes in the document.

Table 1.2 offers an overview of the average length of writing sessions and the average length of "writing days" for these three participants. As already described to some extent in the case study introductions above, the amount of time and frequency of writing depended on the material circumstances of each writer: Alice is retired and thus has regularly scheduled writing time throughout the week. Dan wrote primarily on his breaks and summers until his sabbatical, when he was able to dig in more deeply with regularly scheduled time. Ryan employed a writing strategy of frequently returning to his text to engage.

Table 1. 2. Session Length Recorded in Google Draftback

Participant	Shortest Recorded Session	Longest Recorded Session	Session Average
Alice (Planning)	48 seconds (4 changes)	1 hour 29 minutes (3605 changes)	18 minutes 12 seconds
Dan (Discovery)	13 seconds (25 changes)	1 hour 31 minutes (3725 changes)	15 minutes 0 seconds
Ryan (Hybrid)	26 seconds (15 changes)	1 hour 46 minutes (2360 changes)	25 minutes 24 seconds

Table 1.2 provides details about the length of the writers' writing sessions as recorded in the Google Draftback program. What is characteristic about the writers is that they may not have been "in" the draft the whole day, but they returned to it frequently (which Draftback registers as a separate writing session). The longest continuous writing for all three writers appears to be between 1 hour and 30 minutes to 1 hour and 46 minutes, although writers wrote up to three to five hours on average on a project in a long writing day, returning to the draft frequently, taking breaks, and engaging in other activities outside of the specific text.

Writing Process in Documents and Metrics

What follows are writing analytic visualizations from Google Draftback that show both time (which you can read left to right across the graphics) and where in the document the writer worked (which you can read top to bottom). I have annotated the graphics further by indicating the primary activity that the author was engaging in during writing sessions in the graphics, which was ascertained from both the video playback in Google Draftback as well as writing journals each author kept. These phases include drafting, defined here as producing new text; revision, defined here as making higher-order or meaning-making changes to existing text; and copyediting, which is defined here as making small changes to existing text for the sake of clarity, precision, style, punctuation, or grammar. I offer these large phases with the caveat that these three phases are not mutually

exclusive; all authors weaved between these three phases in various moments in their documents and for some, the different phases were melded together (and are thus indicated as such on the graphics). Thus, these broad labels offer a more generalized view about what they were doing in their document at various stages and can help readers better understand the analytic graphics.

Alice: Planning Composing Style

Alice's composing represented the most linear of the three styles in that she wrote on her draft from beginning to end. Reading Figure 1.1 from left to right, we see that Alice started her composing process at the top of her document, in the introduction, and worked her way methodically through the chapter. This linear composing is represented by the concentrated dots demonstrating that she stayed in the document largely where she was writing, and as she continued to compose paragraph after paragraph down the page. During her writing session on March 21st, she shifted to revision, which we can see by the dots appearing throughout the document and in several sections rather than in a linear fashion. She returned to linear writing on March 30th to complete the conclusion. After a break, she came back and began copyediting (represented by the long, thin lines showing she is moving from the beginning and down the document stopping at many points along the way), completing copyediting on April 9th.

What these solid lines represent is that Alice already has a clear plan for writing when she opens up her document and she is able to enact that plan in focused writing sessions where she completes sentence after sentence, paragraph after paragraph. Once most of the drafting is done, she turns her attention to revision, drafting the conclusion, and editing.

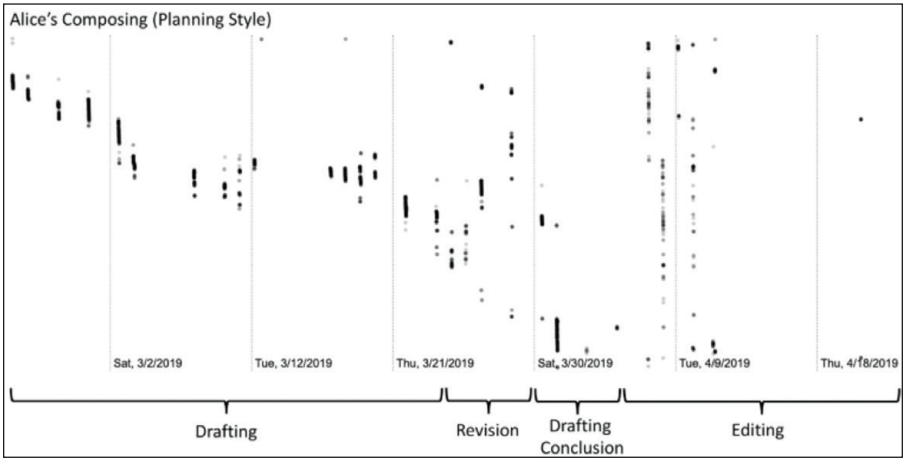

Figure 1.1. Alice's writing process

Dan: Discovery Composing Style

Figure 1.2 offers a visual of Dan's documents compiled from his multiple drafts. In comparing Alice's and Dan's images, we can immediately see differences in how the documents were shaped over time. Alice had clear "lines" where she was drafting ideas while Dan's moves around much more in his draft in each writing session and writing day. For example, in Dan's writing session on 9/6, many of the dots are spread out, indicating that he is making changes in many different parts of the document as he shapes his ideas. Evident in Document 1, Dan also returns frequently to the beginning of the document where he continues to refine his purpose for the chapter. The purpose evolves as his text evolves, which is why each time he opens Document 1, he first engages in the beginning of the document.

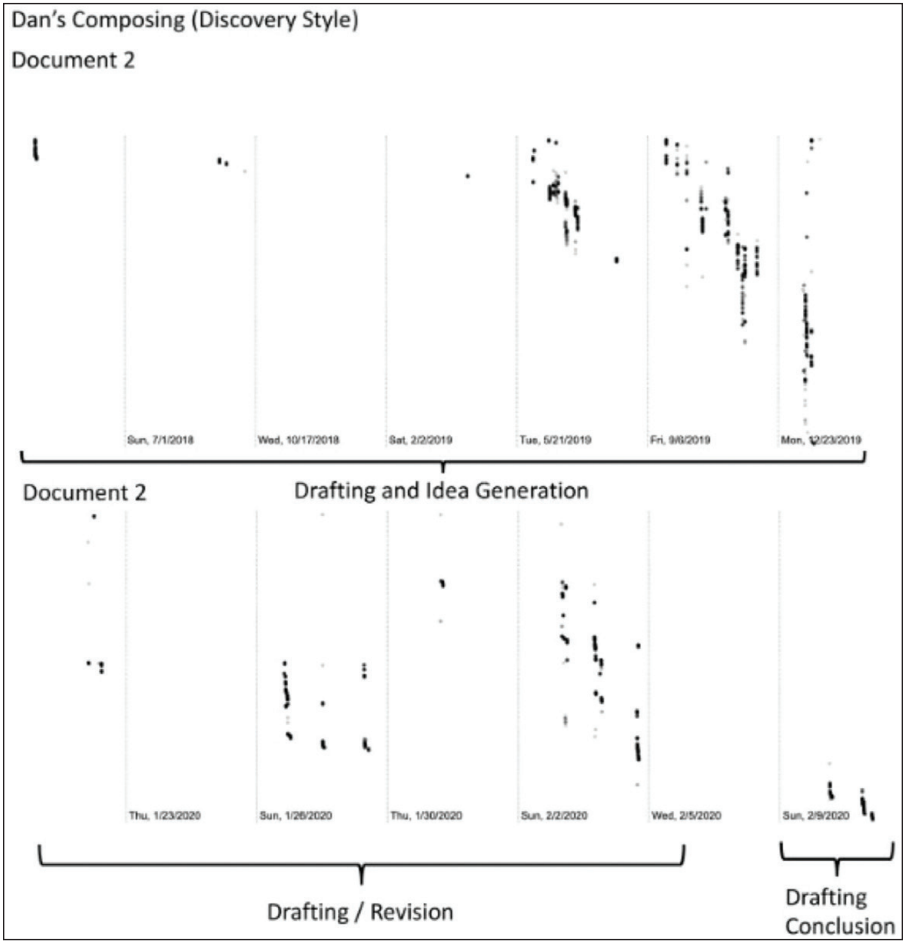

Figure 1.2, Dan's composing style

Dan transitioned to Document 2 when he went on sabbatical, representing more focused writing time where he was able to complete his draft. Dan continues to generate and refine ideas in different places in the document, engaging in both drafting of new content and refining existing content. This is also when he creates the "notes" file where he cuts 2,400 words of text out of Document 2 and saves it in this file (as he indicates in his interview, for other parts of his book or for other later use).

The presence of engagement spread throughout the text is reflected in his interviews, the video playback of the text, and his writing journal. As Dan writes, he continues to refine his purpose over time, and often is returning to different sections of the document to refine, expand, or cut extraneous information and to figure out where material should be placed.

Ryan: Hybrid Planning/Discovery Composing Style

Ryan's process (Figure 1.3) represents a hybrid between the planning and discovery styles, which can also be reflected in how he engages with his text over time. Like Dan, Ryan frequently engages with the opening of his text and returns to it (in what he calls "tinkering") as he refines his purpose.

But, like Alice, Ryan also demonstrates more linear drafting, where he starts working on one section of a text and remains focused on that section for writing sessions. The major difference between Ryan and Alice is that Ryan "tinkers" with the earlier parts of the draft before coming to the next section and engaging in more focused composing, as he continues to refine his purpose. The revision/editing sections of Document 1 on October 29th and Document 2 on July 22nd represent Ryan reading through the text intensively and making both revisions to bring sections of the document in line with his evolved purpose as well as editing the document for clarity, precision, formatting, and punctuation.

While we see major distinctions in the drafting and revision portions of the writing process for the case study participants, the finalization of the manuscripts looks quite similar for all three writers. Once a writer's purpose is refined and the text is mostly drafted, all writers work on textual refinement and copyediting.

Composing Styles in the Broader Field

Now that I've presented what the three composing styles are and how they function for writers as part of their process, I turn to examining how prevalent these styles are among professional academic writers in the field of composition, using self-reported survey data. The survey was completed by 198 individuals associated with the professional field of rhetoric and composition who had engaged in publication. Participants indicated a range of publication experience (from over

25 articles published to working on their first article). Participants reported a range of expertise in writing for publication, which was distributed fairly evenly among those considering themselves experts (27, 13.6%), advanced writers (52, 26.3%), intermediate writers (58, 24.7%), novice writers (49, 24.7%) or those not yet experienced (10, 5.1%).

Several multiple-choice questions asked participants to report their preference for planning or composing styles. I compiled the responses to these questions into composite responses indicating respondents' general composing style preference. Data show that Planners (strong or weak preference) comprised only 10.6 percent of the dataset; Discoverers (strong or weak preference) comprised 48.4 percent of the dataset. Hybrid Planner/Discoverers comprised 38.9 percent of the dataset; these numbers almost identically map onto the case study participant distribution. Thus, these statistics suggest that most writers employ discovery composing styles or use them in combination with planning, while only a small subset of writers rely more extensively on planning as a primary composing style.

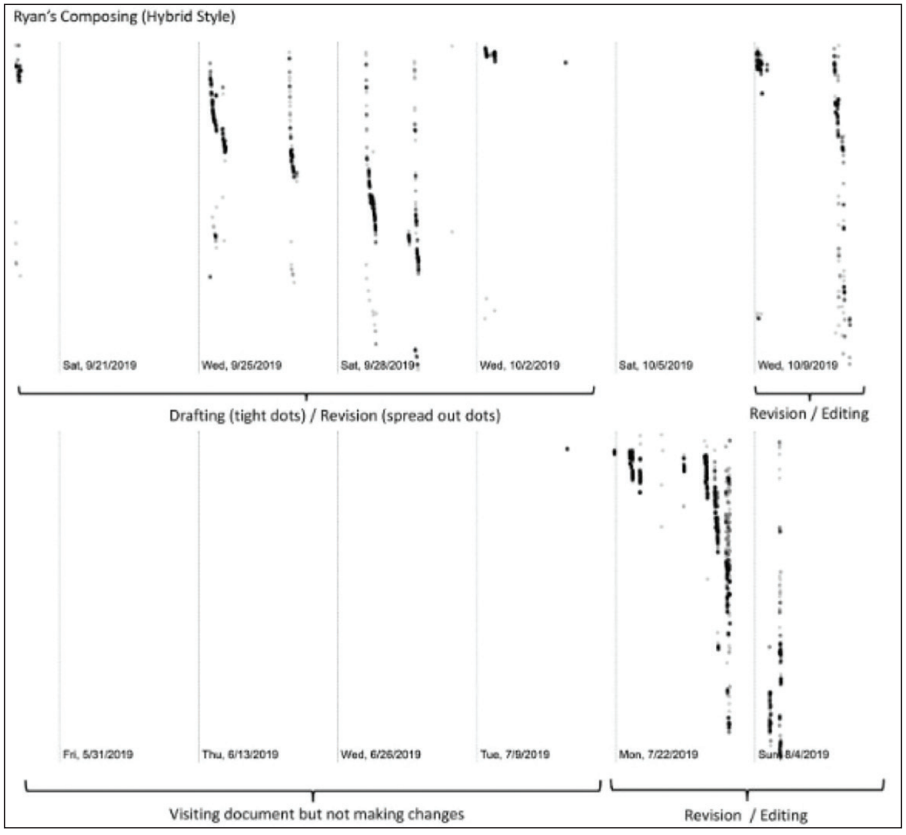

Figure 1.3. Ryan's process

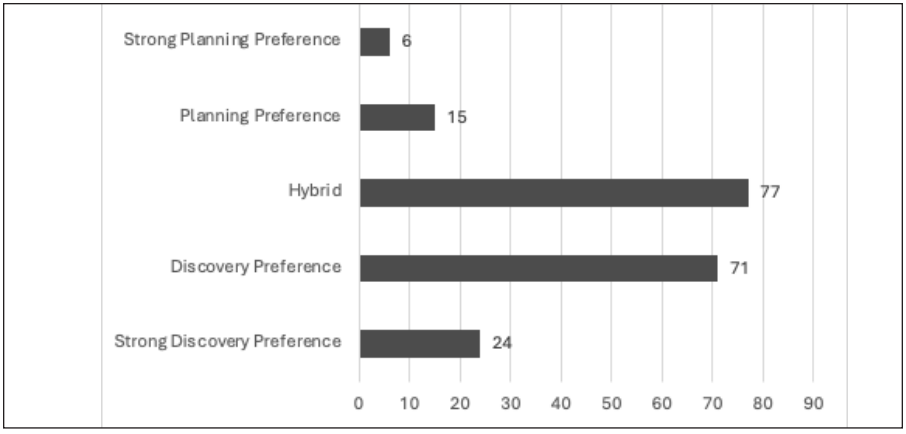

Figure 1.4. Composing styles among survey participants

I also asked whether composing style is correlated with the demographic or institutional factors. Composing style is not correlated with self-reported expertise, institutional status, teaching load, gender, ethnicity, or how many publications one has produced. However, composing style is significantly correlated with required publication (Pearson's correlation, two-tailed, bivariate, 0.142, $p < 0.048$, $n = 194$). That is, individuals who reported that publication was required as part of their job or studies were more likely to indicate a planning preference. Forty-eight percent (95) of participants indicated that writing for publication was a required part of their job, while five percent (10) indicated it was not.[2] But beyond this single correlation, composing style appears to be a matter of individual preference.

Operationalizing the Model of Planning, Discovery, and Hybrid Composing Styles

Based on the above, I offer the following definitions and model for the Planning, Discovery, and Hybrid composing styles, including features and developmental trajectories. For this model, one of the key differences between planners and discoverers is where the invention takes place: in the head or on the page. This, then, shapes the drafting and revision process for each writer.

2 Six percent of participants used the "other: please specify" category to outline myriad circumstances which mostly boiled down to "it's complicated but not required." Many noted their institutions "strongly encouraged" them to publish; others noted that while they were in adjunct or non-tenure lines, they wanted to publish to get a better position. Others, like graduate students, noted that while it wasn't a requirement, it was an expectation. These were coded as "not required" in the dataset.

Planners

Planners are writers who choose to employ extensive invention strategies to pre-plan their texts before they sit down to compose. The result of extensive planning allows them to achieve a more linear and direct writing process.

Features of Planning Composing Styles

- *Invention:* Planners engage in copious amounts of invention prior to sitting down to write. These activities may include outlining, making lists, organizing sources, and thinking through ideas. Planners may also create extensive outlines with target word counts, what the purpose of each section is, and the overall purpose for the piece.
- *Purpose*: Planners use their invention strategies to clearly define their purpose for the text prior to writing.
- *Drafting:* Planners engage in efficient drafting processes, writing directly to their purpose and generating a minimal amount of extra prose. Planners predetermine the order, length, and content of what they want to write, and their drafting proceeds from that plan.
- *Revision:* Revision often takes place after drafting, following a more classic writing process approach where the text is refined after the drafting is largely completed.
- *In between writing sessions:* Planners often have extensive "planning sessions" in between major writing sessions where they think through or outline the next phase of the draft. Thinking through these activities might be done during repetitive activity like exercising, walking, or cooking. Planners may make use of notebooks, boards, or other organizational aids as part of their process.
- *Process and order of ideas:* The writing process appears on the page as fairly linear; section after section is written in the planned order during drafting.

Discoverers

Discoverers use writing-to-learn as a way to generate new ideas, deeply explore concepts, and refine their purposes. Drafting is often messy, recursive, and may generate much more prose that is later discarded.

Features of Discovery Composing Styles

- *Invention:* Discoverers will jump right in to drafting with a very loose plan or purpose. While they have often thought about the ideas

behind the text, this thinking process is often conceptual rather than driven directly towards producing an outline or writing plan. They recognize the power of writing to learn and depend on the act of writing itself to help them discover their purpose and write their way into understanding.

- *Purpose:* The purpose of the writing is refined and revised extensively during each composing session, although writers may wrestle with ideas in between sessions.
- *Drafting:* Discoverers frequently return to their overall goals and purpose to refine, scrap, or amend ideas. They may end up writing "multiple articles" and generating more prose than is needed for the text, sometimes on tangents that can later lead to future work. This can result in multiple versions of documents, cutting and pasting large chunks of texts that may be shaped into other publications, and writing in several potential directions before settling on one direction.
- *Revision:* Discoverers often engage in drafting and revision in the same writing session; writing done in previous sessions is revisited and refined throughout while the writer also drafts new material.
- *In between writing sessions:* Discoverers report engaging with ideas and concepts in between sessions, but not always towards crafting a distinct plan for writing.
- *Process and order of ideas:* The writer often jumps around considerably during the drafting process, and may work on small sections throughout the draft. These sections are not linear or sequential.

Hybrids

Hybrid Planner-Discoverers

Hybrids use a combination of planning and discovery, which may be either a personal preference or required due to the demands of the specific topic, their knowledge of the topic, and the genre they are writing in. Hybrid processes are a combination of the features above, but hybrid processes may manifest differently depending on the specific writer. Some writers have distinctive plans for certain parts of their draft, while recognizing that they need to engage in writing to learn (discovery) for other parts of their draft; thus, they employ both approaches simultaneously. Other writers may begin as planners with a clear and detailed plan, and then, once engaging in the writing process, quickly realize the original plan needs to be scrapped. This might be because their original idea wasn't nuanced or complex enough, their thinking or data had led them in another direction, or they encountered new information that shifted their

thinking. Thus, while they started with a plan they thought was workable, they moved into discovery mode, where they worked to use the writing itself to develop a clear sense of purpose.

DISCUSSION

In the case of either planning or discovery, writers considerably engage with their subject matter, their sources, and their texts. The key difference that this study demonstrates is in both invention and drafting. For planners, writing is used primarily as a vehicle to convey their thoughts and purpose (returning to Fulwiler and Young's (1982) "writing to communicate"). For discoverers, writing is originally used to help refine and shape their ideas and to literally generate knowledge (or Fulwiler and Young's "writing to learn"). Discoverers later do shift to a "writing to communicate" approach as they enter the end of their revision and editing stages. Writers of both composing style preferences engage recursively with their texts (Kellogg, 1994)—planners simply do it in their heads and up front through notes and outlines, while discoverers find that the act of writing helps refine their purpose and thinking. Hybrids employ a range of these approaches depending on the rhetorical situation, their knowledge, and the genre.

One thing that is striking about the case studies is the way in which writers, when presented with the early planning-discovery composing style model, could both articulate their preference for the framework and offer a discussion of why that particular composing style worked for them. Expert writers offer deep understanding of their own nuanced writing processes and have learned, over time, to trust in the processes that they have developed. While these findings expand and deepen our understanding of writing process, they also closely align and support earlier works on expertise, both from the perspective of the psychology of writing (Kellogg, 1994; Kellogg, 2006), writing to learn (Bean, 2012), and faculty writing practices in the field (Wells & Söderlund, 2018; Tulley, 2018).

While the case studies in phase 1 of the study helped explore the nature of the planning, discovery, and hybrid composing styles, the survey offered broader insight into how these styles may manifest in members of the discipline and what factors, if any, correlate. Based on limited correlations in the survey and from my case study participants' clear articulation of their composing style, composing style appears to be a personal writing choice. That is, it does not appear to be impacted by one's expertise, number of previous publications, teaching load or administrative responsibilities, institutional status, experience, gender, or race. The one correlation this study found was that planning was weakly but significantly

correlated with required publication, suggesting that individuals with the pressure to publish may engage in planning more out of necessity in a "publish or perish" situation. The choice of discovery was as likely to occur with those who identify as novice professional academic writers, including those new to publication, as it was for those who have published 25 or more books or articles.

The unequal distribution of those who express discovery or hybrid methods in the survey may also signal a deeper truth about the challenges of generating novel ideas and contributions that shape a discipline and ultimately contribute to human knowledge. Thus, it appears that for most writers, the act of writing itself is the best vehicle for this deep engagement with ideas to take place, through recursive processes (Kellogg, 1994) that allow deepening of thinking and purpose.

IMPLICATIONS: STRATEGIES FOR DEVELOPING EXPERT WRITING PROCESSES

One concern present in all of the case studies, both incomplete and featured here, was what appeared to be an implicit bias towards more orderly, linear, and planned processes. For example, one expert writer who in the longitudinal study indicated a Discovery composing style recognized that their "messy" discovery process produced high-quality publications, spoke of their process as a nightmare: "Again, I had to laugh when you write Beethoven [Discovery] … I usually have four Google Docs open for a project where one is a clipboard, one is one section, one is another section. … It's a nightmare." Another Discovery composing style participant said, "Yeah, I'm definitely a Beethoven (Discovery) and that's a nice way to put it because I've always thought of it as just a shitty first drafter or the opposite of the perfect drafter person." As these two quotes indicate, for some of those who engage in discovery-based processes, a negative view of a more "messy" process may impact their self-perception as writers.

I suspect this issue comes from at least two sources. First, despite the field's extensive research and theories concerning moving "beyond" the traditional linear process approach (Kent, 1999), much high school writing and first-year composition pedagogy is still taught with a linear view of writing, using the traditional writing process model. Second, the short deadlines required in many courses means there are simply fewer opportunities to engage in deep discovery—which for all case study writers took considerable amounts of time. Participants in my study wrestled with their texts for months and years before coming up with a manuscript that they were willing to submit for publication. Coursework seldom allows that to happen and creates perhaps a distorted view of the necessary writing processes for deep engagement.

In fact, in teaching doctoral-level writing for publication as well as supporting advanced graduate writing as the director of our university's writing center, I have frequently heard students express frustration over the messy nature of writing dissertations and articles. They come into a writing for publication course with an expectation that their writing should look somewhat linear and proceed in an orderly fashion and lament that there is something "wrong" with their writing when they end up having to engage in Discovery writing. During my analysis and early writing of this article, I shared my emerging results about composing styles with my writing for publication students. After experiencing the need to shift into discovery and abandon their plan, many students noted the relief that expert writers routinely experience these messy experiences and that they weren't "doing it wrong." Thus, one key implication of this work, I hope, is that we can use it to teach graduate students and novice writers that writing for publication is often messy, unstructured, and, ultimately, a process of discovery.

Given all of the above, I offer the following key points that can help the field broaden our understanding of expert writing processes and support novices seeking to write for publication:

- *Cultivating key habits of mind that support discovery-based and hybrid processes.* These habits of mind (Framework for Success in Postsecondary Writing, 2011) include (a) flexibility that allows writers to abandon previous plans in favor of novel directions and develop deeper purpose, focus, and goals through drafting; (b) openness to explore ideas originally not considered as part of a plan; and (c) creativity, which is critical to cultivate for the production of novel ideas. Central to these habits of mind is recognizing that when we enter new subject areas or write in new genres, we might have to write our way into understanding.
- *Understanding the ongoing and recursive nature of invention*. Invention for expert writers doesn't fit the typical linear process. Rather, invention is something that writers are always engaging in—as they plan, as they discover, as they refine their purpose and goals. Invention strategies may be internalized through a planning style or manifest on the page, through a discovery style.
- *Recognizing the value of purpose-driven drafting and recursive writing*. Key to both planning and discovery is defining and refining one's purpose for writing. As the writers' purpose was defined and refined, they shifted drafts, goals, and approaches.
- *Valuing the writing of extra prose*. Expert writers may write many more volumes of prose that ends up not being part of their final published products. It is useful not to see this extra prose as "wasted" but rather material that can be reshaped into future publications and projects.

CONCLUSION

Planning, discovery, and hybrid composing styles appear to be a key preference for expert writers that considerably shape their invention and drafting processes, and that seem to be a matter of personal preference. Understanding these composing styles can offer the field new ways both of exploring writing as a tool for communication and learning, and also in supporting graduate students and new scholars in developing successful approaches to writing. Further, this work opens up a potentially new line of writing process research. Some of the many questions future researchers might explore are: How do emerging professional writers' drafting processes for coursework versus publications differ? How might we best teach and study the efficacy of these practices? How do we cultivate the habits of mind necessary for flexible writing processes? I encourage teachers and researchers to continue to pursue these questions.

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