

Learning to Learn to Write:
Adapting the Principles and Practices of Cognitive Behavioral Therapy
into First-Year Writing Curricula

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This thesis examines the potential usefulness of a first-year writing pedagogy inspired by the principles and practices of Cognitive Behavioral Therapy (CBT). Research on the cognitive processes that undergird the composition process is hardly new. However, relatively little composition research has focused on the cognitive processes by which one *learns to use* the cognitive processes of composing. Moreover, no direct research has been done to examine whether methods of directly inspecting and adjusting unhelpful cognitions (as in cognitive therapies) might be adapted to help students take charge of the cognitive learning processes by which they come to use cognitive composition processes. The initial justification for such an investigation rests on the observation that CBT is specifically designed to help people examine and amend unwanted cognitions.

To some extent, it seems common sense that students' writing success would depend on the beliefs they hold about writing or about themselves as writers, or else on the habits of mind they bring to bear on the writing process—and empirical research backs up common sense, in this regard. Sanders-Reio et al. (2014), building on previous research and some speculation within the scholarship, conducted a study involving 738 undergraduate students in order to determine whether students' grades on writing assignments could be predicted by the students' beliefs about writing and their beliefs about their own abilities as writers. The study found that such beliefs did, indeed, predict the grades that these students received, and the researchers suggested that these beliefs could be a "leverage point for teaching students to write" (Sanders-Reio et al. 1).

This study by Sanders-Reio et al. came in the midst of a broader pedagogical development around the turn of the 2010s, one that attended to—and continues to attend to—the habits of mind and beliefs that students bring to writing. Only two years prior to Sanders-Reio et al., the NCTE (National Council of Teachers of English) released the

Framework for Success in Postsecondary Writing. This document represents a nationwide collaboration among teachers of secondary and postsecondary writing and establishes eight habits of mind as particularly influential in students' success as postsecondary writers:

- Curiosity — the desire to know more about the world.
- Openness — the willingness to consider new ways of being and thinking in the world.
- Engagement — a sense of investment and involvement in learning.
- Creativity — the ability to use novel approaches for generating, investigating, and representing ideas.
- Persistence — the ability to sustain interest in and attention to short- and long-term projects.
- Responsibility — the ability to take ownership of one's actions and understand the consequences of those actions for oneself and others.
- Flexibility — the ability to adapt to situations, expectations, or demands.
- Metacognition — the ability to reflect on one's own thinking as well as on the individual and cultural processes used to structure knowledge.

(Framework for Success in Postsecondary Writing 525)

Some of the most productive observations pertaining to habits of mind come from the field of writing transfer research, which is concerned with how students come to transfer knowledge learned in one context into another context. Recent work in this area—Beaufort (2016), Taczak and Robertson (2016), and Hayes, Ferris, & Whithaus (2017)—has examined students' habits of mind and dispositions in order to explain the conditions in which students successfully engage in knowledge transfer.

Given such broad attention to the influence of habits of mind (and other cognitive structures) on college-level writing performance, and the need for writing pedagogies that help students develop these habits of mind, I am investigating whether the principles and practices of CBT could play a role in helping students take greater control of the processes they use to write, as well as the processes by which they learn to write.

This thesis will proceed in two major steps. The first step will be a literature review, intended to establish the place of a CBT-inspired pedagogy within past and current conversations of cognitive methods of writing instruction. I will begin by reviewing several influential models of the composition process from recent decades, as well as one model of a composition-learning process (i.e., a process of learning how to compose). To put it simply, these models are concerned with how people write, and with how people learn to write. This thesis is concerned with how people *learn to learn* to write. This is a topic of primary concern in the first-year writing classroom, and one which the models of composition and composition-learning processes do not examine. As I will argue, a CBT-inspired pedagogy would help us take that next step in the research.

I will then give a brief overview of CBT's principles and practices, in order to illuminate the connections between CBT and the composition models. From there, I will address ongoing discussions of mindfulness in the writing classroom, tracing back to Ellen Langer's 1989 work. Recent research on mindfulness has already opened up the idea of asking students to address their states of mind separately from the words they use to convey those states. Questions therefore arise as to whether a CBT-inspired pedagogy presents anything new that mindfulness does not already supply. However, as I will show, these mindfulness pedagogies, while truly useful, lack the theoretical resources to build on the dominant, goal-oriented models of the composition process going back to Flower & Hayes' 1981 model. A CBT-inspired pedagogy

would add to discussions of mindfulness in the composition classroom by supplying a theoretical framework that connects the self-awareness of mindfulness with the goal-selection that is necessary to advanced composition.

I will then proceed to the second major step of this thesis: laying out what a CBT-inspired pedagogy might look like, in theory and in practice. In conversation with transfer literature and the theories underlying the major composition process models, I will argue that the principles of CBT bring together disparate strands of the research on composition processes. What results from this coalescence of theory is a model of the structure of the writing mind—i.e., a model of the cognitive structure that encounters the kind of composition-learning process described by Zimmerman & Risemberg (1997). With this model in mind, I will then propose a curriculum for a fifteen-week course, with weekly assignments, a course schedule, *et cetera* (see Appendices E-I for all course materials). The purpose of laying out this curriculum is to show how a CBT-inspired pedagogy might function on the ground level. I argue that such a curriculum will help students improve not only at writing, but also at learning to write, and will therefore help them become more self-directed and adaptable writers as they proceed through their undergraduate careers.

Part One: The Place of CBT in Composition Pedagogy

Models of the Composition Process

Flower & Hayes (1981) model a cognitive process of composition that is quite multifaceted, in which different parts constantly overlap with and inform one another (see Figure 1). The process as a whole is guided by a set of writer-created, hierarchical goals that tends to shift over the course of writing.

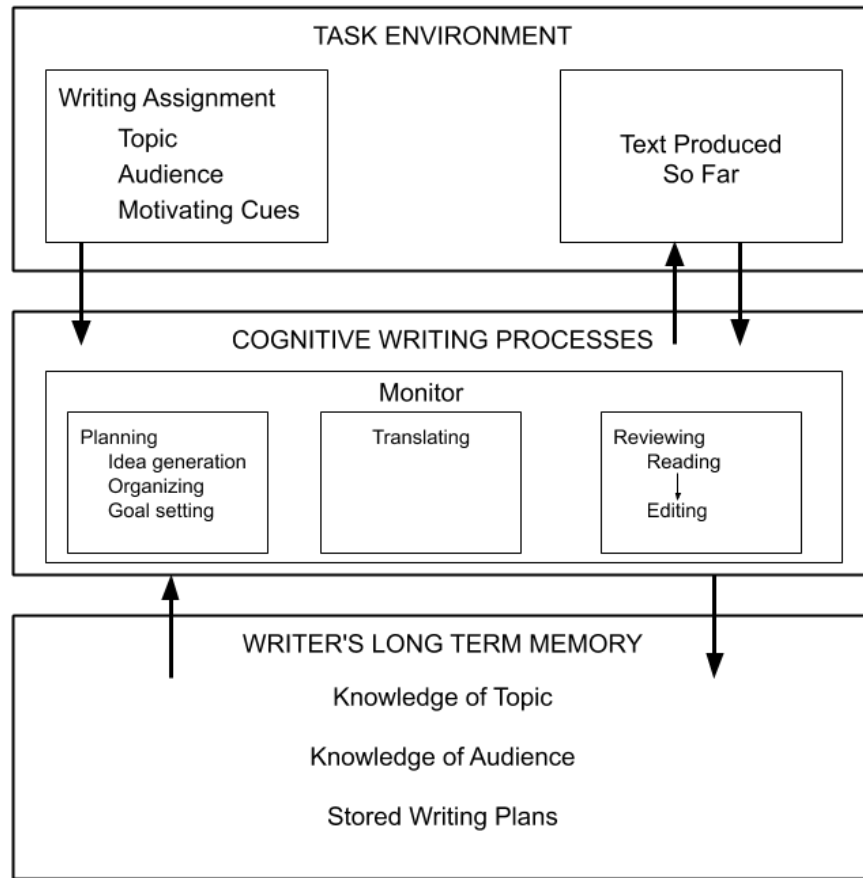


Figure 1: Flower & Hayes 1981 model, adapted from a combination of Flower & Hayes (1981), p. 370 and Hayes (1996), p. 2

The Flower & Hayes model names three basic writing processes—"Planning, Translating, and Reviewing"—which are informed by the "task environment" surrounding the writing and also by the writer's own long-term memory (369). The planning process takes ideas from the nebulous area of largely pre-articulated knowledge and turns them into something solid enough to be rendered into writing in the translating process. Planning *generates* ideas by "retrieving relevant information from long-term memory," *organizes* those ideas into hierarchies in order to give them a "meaningful structure," and finally sets and revises goals for the writing project at hand (373).

The other two processes are somewhat simpler in the model, though no less important. The translating process "is essentially the process of putting ideas into visible language," while the reviewing process involves evaluating what one has written and revising it as needed, often restarting the planning and translating processes (373-4). Over all three processes sits what Flower & Hayes call the "monitor" (374). Though they do not specifically mention metacognition, that is essentially what the monitor represents, acting "as a writing strategist which determines when the writer moves from one process to the next" (374).

Hayes' revised model (published in 1996) is mainly an expansion intended to account for the intervening years of research after 1981 into various other influences on the writing process. The new model considers a wider scope of structures in the writer's mind, beyond the cognitive processes that were the focus of the original 1981 model (see Figure 2). The two major additions to the model are Working Memory and Motivation/Affect, each of which has its own set of subordinate structures. The inclusion of Long-term Memory is a carry-over from the original model, but the new model expands on what Long-term Memory entails. The Cognitive Processes are tweaked slightly, as well, to put a "greater emphasis on the function of text interpretation processes in writing" (Hayes 1996, 26).

The essential premises, however, remain the same as in the original Flower & Hayes 1981 model, as does the aim: to represent the way a writer's mind encounters the act of composition. The only major difference is that the new model places less emphasis on cognitive processes, and more emphasis on how those processes interact with other structures in the writer's mind (Working Memory, *et cetera*).

The revised model, in other words, is still a model of the composition process, of how a writer writes. Neither it nor the original 1981 model describes how a writer *learns* such a composition process.

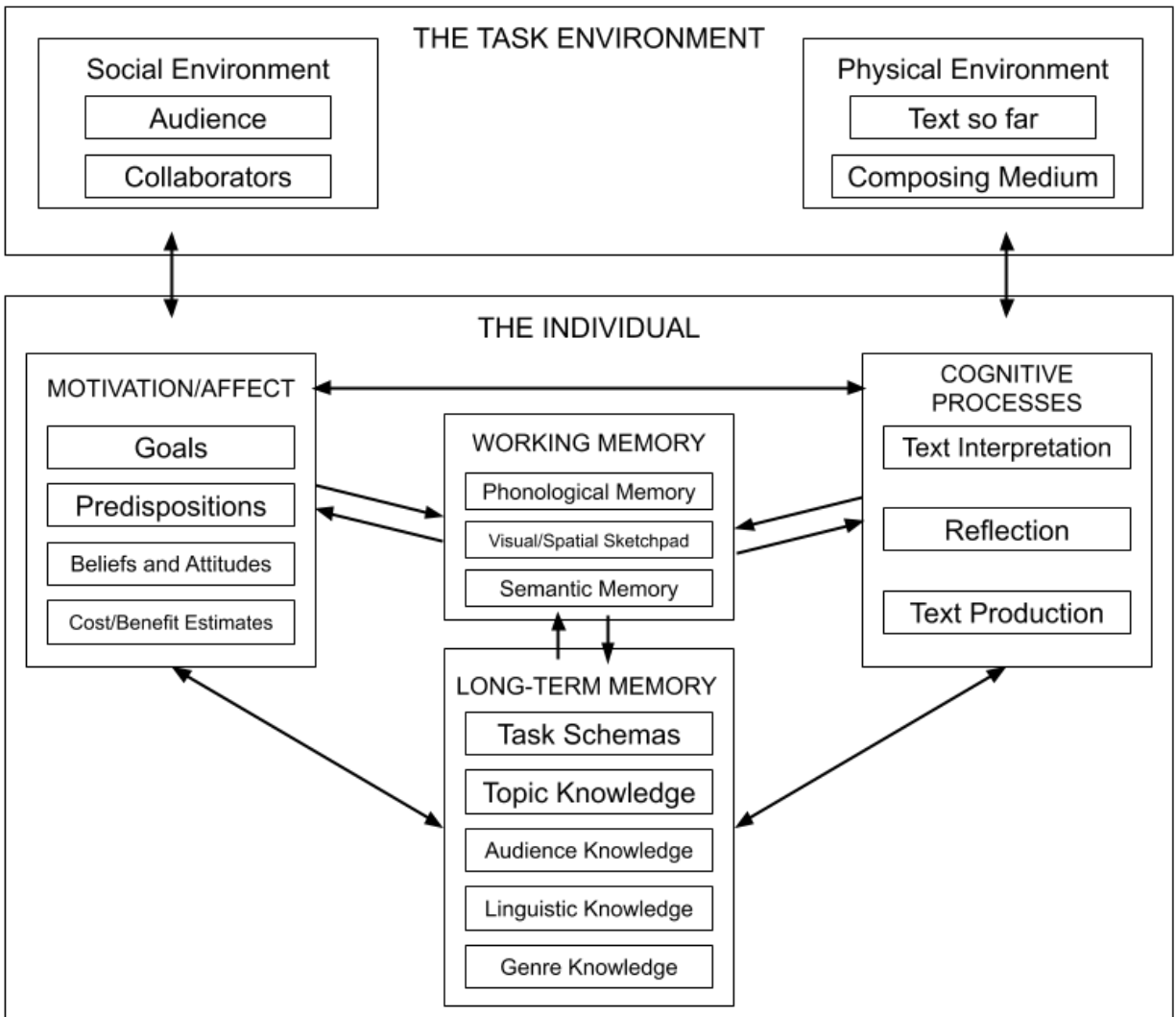


Figure 2: Hayes' revised model, visually copied from Hayes (1996), p. 4

Partly to address this gap in the scholarship, Bereiter & Scardamalia (1986, '87) proposed two models of a cognitive composition process, *knowledge-telling* for the immature writer (see Figure 3) and *knowledge-transforming* for the mature writer (see Figure 4). By proposing two models, one immature and one mature, Bereiter & Scardamalia sought to address the fact that the original 1981 model did not explain how a writer came to learn the composition process it described.

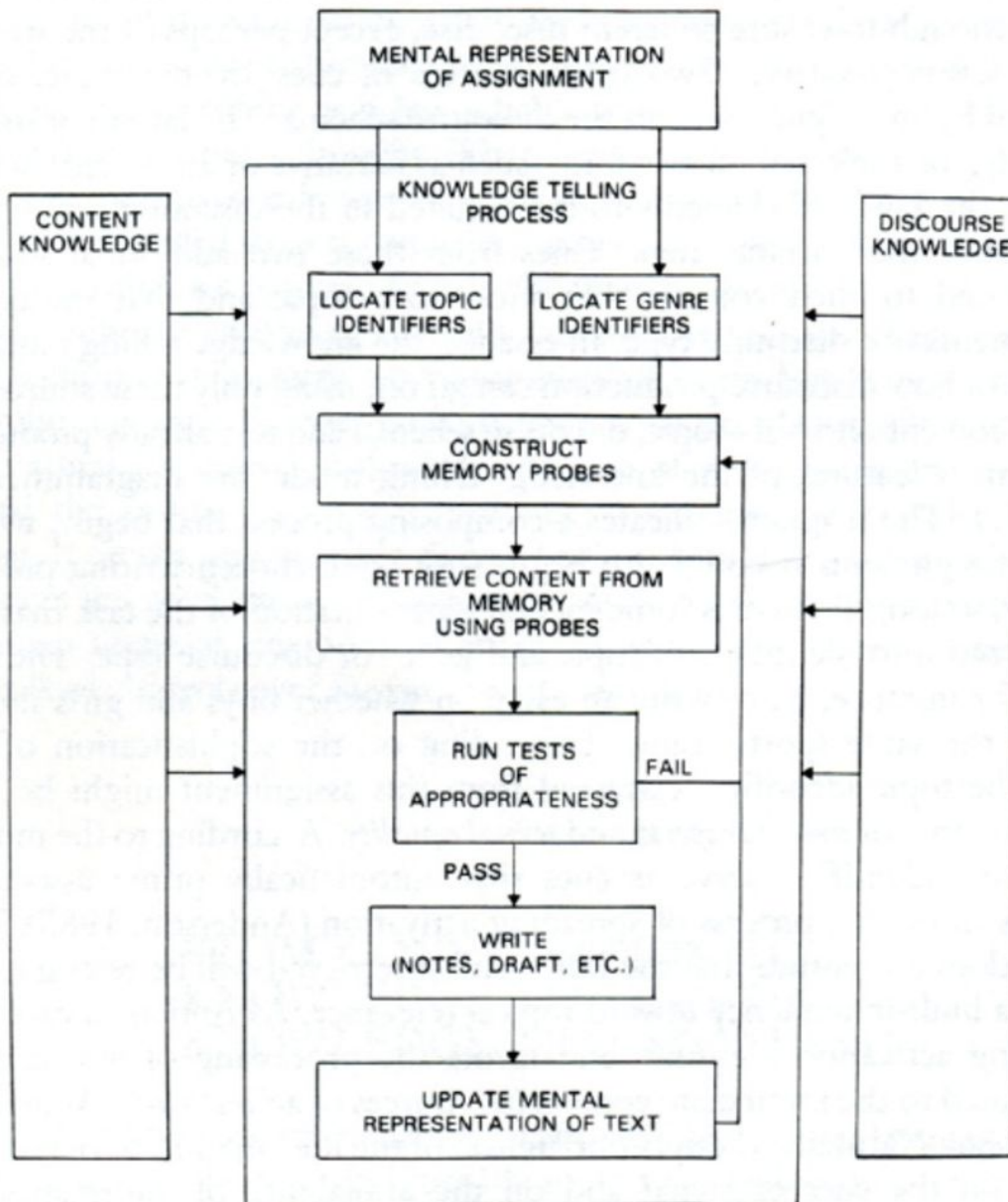


Figure 3: Bereiter & Scardamalia knowledge-telling model, from Bereiter & Scardamalia (1987), p. 144, downloaded from https://www.researchgate.net/figure/Bereiter-and-Scardamalias-knowledge-telling-model-1987_fig1_276486276/download

The knowledge-telling model—the model of the immature writing process—reflects a very simple composition process. A writer reads the assignment and takes note of statements

that identify topic and genre. These topic and genre cues prompt "memory probes," which search the writer's memory in an automatic fashion for information that fits the topic and genre (Bereiter & Scardamalia 1986, 792). The writer then tests the retrieved information to see if it is appropriate for the topic and genre. If it is not appropriate, the writer goes back to the drawing board, so to speak, converting the topic and genre cues in the assignment into new memory probes. On the other hand, if the information retrieved is appropriate, the writer translates this information into language, and retrieves additional information if necessary for coherence (Bereiter & Scardamalia 1986).

In the knowledge-telling model, there are no real rhetorical decisions to be made or problems to be solved. The type and bounds of rhetoric are essentially assumed and laid out at the start, and the writer merely fills in the mold with content information.

The main development from knowledge telling to knowledge transforming is that the B&S knowledge-transforming process sends *different kinds* of probes into the writer's memory, probes that search for information based on subgoals arising from the rhetorical problem space: "The model implies that there is a transformation of the rhetorical requirements into content-related subgoals" (147). As a result, "the information retrieved [in the knowledge-transforming process] should not merely fit topical and genre requirements but should have a good likelihood of fitting the specific constraints set out by the writer's analysis of the rhetorical problem" (147).

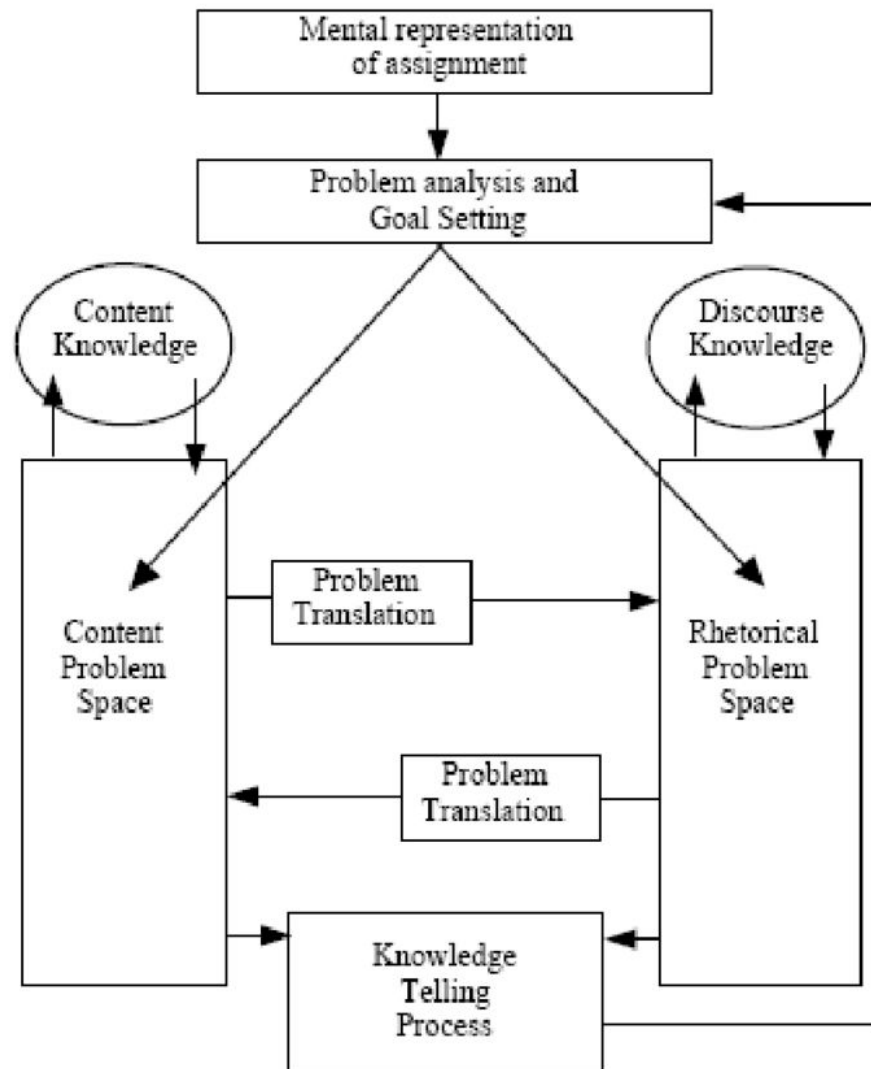


Figure 4: Bereiter & Scardamalia knowledge-transforming model, from Bereiter & Scardamalia (1987), p. 146, downloaded from https://www.researchgate.net/figure/Bereiter-Scardamalias-1987-knowledge-transforming-model-of-writing_fig1_253418546/download

In other words, the *transforming* part of Bereiter & Scardamalia's knowledge-transforming model consists in the ability to assess rather than merely accept the rhetorical problem, to intentionally create subgoals based on that assessment, and to use those rhetorical

subgoals to guide the search for content within memory. By searching one's memory using rhetorical purposes as cues, one effectively sorts through memory in a different manner than by merely searching by related topic. As a result, one finds previously undiscovered relationships between ideas, as certain ideas that might not crop up under the same *topic* may crop up under the same *rhetorical use*. It resembles using different filters in an online search engine; different filters provide different sets of results, thereby revealing new relationships between ideas.

A key difference between Bereiter & Scardamalia's knowledge-transforming model and the Flower & Hayes original model (and Hayes' revised model) is that, whereas the Flower & Hayes model acknowledges the interaction among subprocesses in a general sense, the knowledge-transforming model specifies a particular interaction and labels it as not just possible, but actually necessary to an advanced composition process. In the knowledge-transforming model, the goal-setting subprocess necessarily transforms the idea-generating subprocess into a new kind of process; this is, in fact, the "transforming" part of the knowledge-transforming model.

In labeling this kind of self-controlled goal-setting as the mark of a mature writer, Bereiter & Scardamalia designate at least one cognitive process—one particular habit of mind—as something that needs to be learned, not merely executed. However, the question remains of how one learns this habit of mind, or others.

A Model of the Composition-Learning Process

Zimmerman & Risemberg's 1997 model describes how writers develop their composition processes, rather than how those composition processes function, themselves. In other words, this model describes the development of the writer, rather than the development of a written product. As such, I classify the Zimmerman & Risemberg model not as a model of the

composition process, but as a model of the composition-learning process. This differentiates it from the previous models, which describe the process of writing, not of learning to write. While Bereiter & Scardamalia purposefully juxtapose their two models to show that a writer's composition process does mature over time, the models in themselves do not describe that process of maturation.

Zimmerman & Risemberg's process of composition-learning involves processes of self-regulation occurring between the person, the person's behavior, and the person's writing environment (see Figure 5). As such, the processes break down into three main types, all meant to improve the writing process in some way: *personal* (or "covert") self-regulation, in which the person uses "cognitive or affective strategies," such as "lower[ing] their self-evaluative standards to reduce anxiety"; *behavioral* self-regulation, in which the person uses "motoric performance strateg[ies], such as when a writer keeps a record of the number of pages that were written during a particular day"; and *environmental* self-regulation, in which the person uses "context related strateg[ies]" to change the writing environment, "such as closing the window of the room to screen out distancing sounds" (77).

These patterns of self-regulation can influence one another, although not in all directions. Personal self-regulation can influence itself and behavioral self-regulation—one can decide to think about the writing task differently (a cognitive adjustment), or else decide to put off their writing until after they have eaten (a behavioral adjustment). However, personal self-regulation processes cannot affect environmental self-regulation processes except through behavioral self-regulation. One cannot simply decide the window is closed. One must decide (personal self-regulation) to get up (behavioral) and close it (environmental).¹

¹ For more recent work related to personal self-regulation, see Khost (2017) and Winslow & Shaw (2017). Both studies engaged student-participants directly with their own metacognitive habits of mind. Khost accomplished this through five-minute freewriting exercises on a bi-weekly basis, and Winslow & Shaw did so through a seven-week research project guided by students' "metacognitive awareness of how

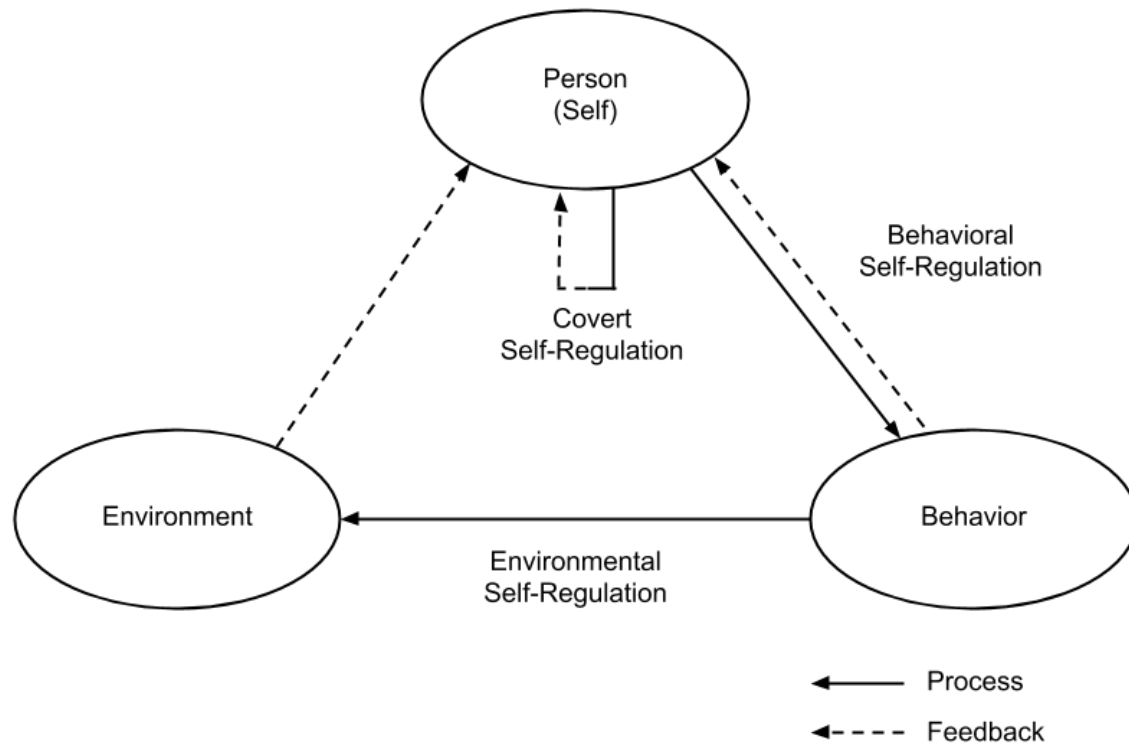


Figure 5: Zimmerman & Risemberg self-regulation model, copied visually from Zimmerman & Risemberg (1997), p. 78

The actual composition learning takes place in the processes of feedback, which are the second major aspect of the model. After executing the processes of self-regulation, the writer observes and judges their effectiveness, keeping or abandoning various processes based on how effective they seem to be. Thus the composition-learning process consists in a "feedback loop" that continually readjusts writerly strategies with the goal of producing a more effective composition process (78). Importantly, this feedback loop of self-regulation also affects the writer's self-efficacy. Generally, whenever the writer seems to be on the right track as far as adopting effective strategies, self-efficacy increases. In turn, Zimmerman & Risemberg

sources influence their work" (Winslow & Shaw 197). Although the circumstances of the studies were different, both generally suggest that there is real pedagogical value in having students reflect directly on the habits of mind they employ in the composition process.

hypothesize, higher self-efficacy in a writer will increase the likelihood of future self-regulation (78).

These various models from composition studies outline two kinds of processes: a composition process, and a composition-learning process. But how does a student learn that composition-learning process? How does a student come to know how he can engage in things like self-regulation in order to improve his composition process? In other words, we have theories of the composition process, and of the composition-learning process, but not of the process of learning the composition-learning process. At the risk of sounding trite, we have theories of how people write, and of how they learn to write, but none of how they *learn to learn* to write.

I turn to CBT because it can help us fill this need. It provides an empirically supported model of the mind and establishes principles and practices for helping people learn to understand and change the beliefs and thoughts upon which they operate in their day to day lives. The structure and goal of CBT are such that the patient learns not performs what Zimmerman & Risemberg might call self-regulation, but also learns how to perform it on his own in the future, should the need arise. CBT articulates, in other words, a process of helping a person learn to examine and change his own patterns of cognition. I am arguing that CBT's emphasis on learning to learn would provide a strong foundation—stronger than current mindfulness-based pedagogies—for teaching students how to continue improving themselves as writers after they leave their first-year composition courses.

Cognitive Behavioral Therapy: A Brief Introduction

Although the leap from composition studies to Cognitive Behavioral Therapy might at first appear strange, the principles of cognition that undergird not only the Zimmerman &

Risemberg model of composition-learning, but also the earlier models of the composition process itself, are largely the same principles that undergird CBT. Moreover, the way these principles play out in CBT bears a striking resemblance to the way Zimmerman & Risemberg's self-regulatory feedback loop enables a composition-learning process.

Cognitive Behavioral Therapy is not a single type of therapy, but rather a family of psychotherapies that operates on the premise that "distorted or dysfunctional thinking (which influences the patient's mood and behavior) is common to all psychological disturbances" (J. Beck 1995, 1). The structure of such dysfunctional thinking boils down to basic "core beliefs" and the "automatic thoughts" they produce in certain situations (J. Beck 16; A. Beck 1976, 237). These automatic thoughts, which a patient "perceives...as though they arise by reflex," lead to the emotional, behavioral, and physiological reactions that the patient finds unhelpful or unpleasant (A. Beck 237). CBT does not discount the importance of emotional reactions to situations, but rather conceives of them as products of undergirding cognitive structures.

A wealth of empirical evidence supports CBT's effectiveness (alone or combined with other treatments) in reducing the severity of a wide array of disorders, from obsessive-compulsive disorder to schizophrenia to chronic pain (J. Beck 2). Moreover, it has proven effective when "treating patients with different levels of education, income, and background" (J. Beck 2). To make the point succinctly, Hofmann *et al.* (2012) performed an extremely comprehensive review of CBT research, reviewing 269 meta-analyses of studies done between 2000 and 2012. Hofmann *et al.*'s meta-meta-analysis concluded that, "[d]espite...weaknesses in some areas, it is clear the evidence-base of CBT is enormous" (436).

As it plays out in practice, CBT can take many forms depending on the person and disorder in question, but all approaches involve a few basic steps. In the simplest of terms, the goal of CBT is to help the person step back from his own thoughts, analyze them, and correct

those that are maladaptive: "First, [the person] has to become aware of what he is thinking. Second, he needs to recognize what thoughts are awry. Then he has to substitute accurate for inaccurate judgments. Finally, he needs feedback to inform him whether his changes are correct" (A. Beck 217).

A few operative principles undergird how this basic structure functions. Different writers on the subject have articulated these principles in different ways, but a particularly useful and comprehensive parsing comes from Judith Beck:

Principle No. 1. Cognitive therapy is based on an ever-evolving formulation of the patient and her problems in cognitive terms....

Principle No. 2. Cognitive therapy requires a sound therapeutic alliance. ...

Principle No. 3. Cognitive therapy emphasizes collaboration and active participation. ...

Principle No. 4. Cognitive therapy is goal oriented and problem focused. ...

Principle No. 5. Cognitive therapy initially emphasizes the present. ...

Principle No. 6. Cognitive therapy is educative, aims to teach the patient to be her own therapist, and emphasizes relapse prevention. ...

Principle No. 7. Cognitive therapy aims to be time limited. ...

Principle No. 8. Cognitive therapy sessions are structured. ...

Principle No. 9. Cognitive therapy teaches patients to identify, evaluate, and respond to their dysfunctional thoughts and beliefs. ...

Principle No. 10. Cognitive therapy uses a variety of techniques to change thinking, mood, and behavior.

(J. Beck 5-8)

Again, different psychotherapists formulate a list such as this in different ways, but the general themes of these operative principles remain the same. The patient in CBT learns to distance herself from her own thoughts, to test the veracity of these thoughts experimentally rather than trust them implicitly. To facilitate this, CBT entails a collaborative relationship between patient and therapist. Along the way, CBT's fundamental focus on achieving the goals outlined by the patient and her therapist means that the methods of reaching those goals can change as necessary over the course of therapy. Ultimately, CBT aims to render the therapist unnecessary, with the patient capable of using CBT techniques on her own.

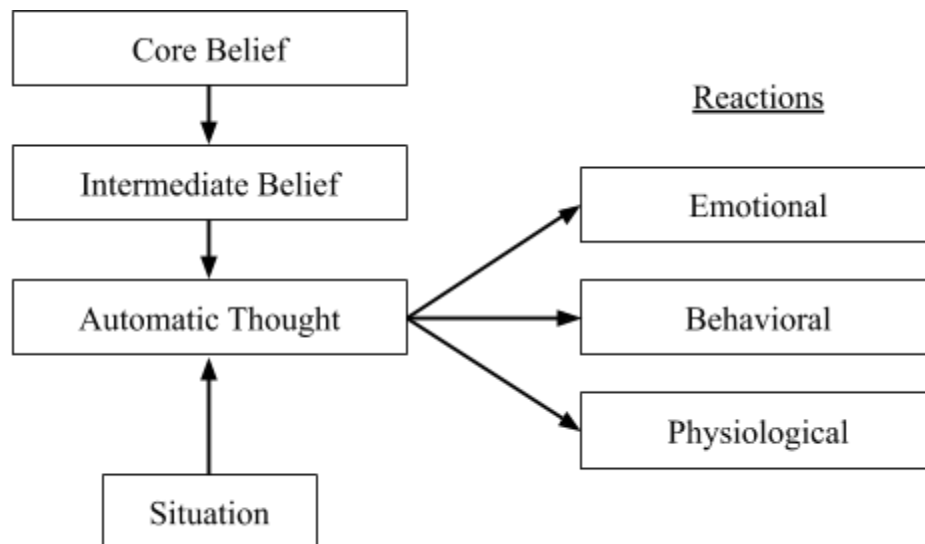


Figure 6: The cognitive model of the mind. Adapted visually from Beck, J., *Cognitive Therapy: Basics and Beyond*, p. 18

Practically speaking, this can involve such methods as asking people to return to places and situations where they have experienced maladaptive emotional, behavioral, or physiological reactions and to notice what thoughts they have immediately before such a reaction occurs, with the intention of identifying the automatic thoughts that precede those reactions. Therapists

might also work with patients using fill-in-the-blank exercises, which attempt to reconstruct the pattern of thoughts that led from a core belief to an undesired reaction (A. Beck 240). The practical methods of CBT are almost endlessly flexible, and are always based on an individualized assessment of the particular person's goals and needs. Also, like the feedback loop in the Zimmerman & Risemberg model, CBT's methods tend to be empirical to some degree, asking patients to gather and record information on their cognitions, reactions, et cetera so as to observe their own patterns of cognition from a more objective perspective.

Now, why should any of this concern writing instructors? The answer is that, although Aaron Beck first developed CBT to combat depression, its success in treating a wider array of psychological disturbances suggests a certain universality to its model. Indeed, there is no clear reason why CBT's techniques should only be useful in addressing those unhelpful patterns of cognitions that we call psychological disorders:

The model was first developed, and has been most extensively studied, in relation to depression. However, it is not relevant only to depression, or indeed only to emotional disturbance of clinical intensity. To distort incoming information in line with pre-existing conceptual frameworks is not in itself abnormal. ... There is thus no *qualitative* difference between the thinking processes of most depressed patients and of those who attempt to treat them; rather, depression exaggerates and intensifies processes present in all of us.

(Fennell 1989, 172)

In other words, the notion that thought patterns can be *maladaptive* assumes the existence of a goal, as well as the potential for thought patterns that are more *adaptive*, i.e., better suited to the goal. For the person suffering from depression, the goal would likely be to live less encumbered

by his or her depression, and the therapist would work with the person to identify and select the more realistic thought patterns that would be suited to this goal.

Similarly, postsecondary students bring certain "pre-existing conceptual frameworks"—certain underlying beliefs—to the writing process. Some of these underlying beliefs are more adaptive than others. If, for example, we use the *Framework for Success in Postsecondary Writing* as a guide, and set our goal as postsecondary writing success, we can say that a habit of mind like curiosity is adaptive to this goal, and a habit of mind like indifference is maladaptive. The question becomes, for the student harboring an indifferent habit of mind, where does this habit come from? What core beliefs may inform this emotional and behavioral reaction to postsecondary writing work? And what, assuming the student is willing, could the student do on a cognitive level to replace this habit of mind with one more adapted to the task at hand?

Before proceeding further, I should clarify that I am in no way suggesting that instructors learn to be therapists for their students, nor that we can or should totally systematize and standardize the composition-learning process. Quite to the contrary, CBT is fundamentally opposed to overly deductive diagnoses and practices. One of its principles, as we have seen, is that the therapist should learn the particular strengths, weaknesses, and goals of each individual patient. This commitment to individualization is what necessitates calling CBT a therapy *family*. Indeed, rather than systematization and overgeneralization, the largest practical challenge of implementing a CBT-inspired pedagogy will likely be the demands of heavy individualization.

Mindfulness

I have suggested that CBT may offer a means of teaching students how to learn to learn to write. However, some voices within composition research—cf. Perkins *et al.* (2000), Carillo

(2016), and Meade (2017)—have proposed another method of teaching students to self-regulate their composition efforts: mindfulness.

Mindfulness and CBT share some important similarities, most notably treating one's thoughts as things to be examined, not merely accepted. Why, then (one could fairly ask), is it necessary to reach so far afield to CBT when it comes to building on the models of the composition process and composition-learning process?

Before explaining why CBT represents an improvement over mindfulness in helping students learn their own composition-learning processes, I will lay out exactly what I mean by mindfulness. A good definition is a bit difficult to pin down within the scholarship, given the different but overlapping schools of thought to which "mindfulness" can refer.

The two most prominent conceptions that have worked their way into composition studies in the last few decades derive from Jon Kabat-Zinn on the one hand, and from Ellen Langer on the other. Each of these conceptions has changed and evolved as it has passed down its own critical genealogy. However, the basic distinction between the two main schools of thought might be articulated as follows: Kabat-Zinnian mindfulness is nonjudgmental awareness of the present moment as one experiences it (DeMint 2014, Schaefer 2018, Wenger 2019), while Langerian mindfulness is open-minded awareness of the *constructed nature* of the present moment as one experiences it (Langer 1989 and 2000, Perkins *et al.* 2000, Meade 2017).

Both versions of mindfulness recognize the problem of automatic mental judgments of a given experience. But where Kabat-Zinnian mindfulness responds to this problem by forgoing judgment of experience—by quieting mental chatter, so to speak—Langerian mindfulness responds by considering alternative possible judgments from different perspectives. To put it another way, although both versions involve letting go of mental judgments of experience,

Langerian mindfulness lets go of a particular mental judgment so one can consider alternative perspectives, while Kabat-Zinnian mindfulness lets go of the very act of mentally judging.

For my purposes, I am more concerned with Langerian mindfulness. Langer's brand of mindfulness actively considers different possible mental judgments of experience, and therefore shares close similarities with Cognitive Behavioral Therapy. Moreover, I propose that a CBT-inspired pedagogy would build upon these similarities and thereby enrich discussions of teaching composition-learning processes with greater attention to how students might move through mindfulness into actually selecting the goals that inform models of the composition process such as the original Flower & Hayes model, Hayes' revised model, and Bereiter & Scardamalia's knowledge-telling knowledge-transforming models. Establishing and articulating this productive connection between mindfulness and the principles of Cognitive Behavioral Therapy is the end goal of the present research.

Langerian Mindfulness

Mindfulness, in Langer's (1989) conception, is essentially the ability to see *things*—situations, decisions, *et cetera*—from new perspectives. Indeed, the awareness of multiple perspectives is central to this school of mindfulness. A mindful state of being, in this sense, entails "(1) creation of new categories; (2) openness to new information; and (3) awareness of more than one perspective" (62). Necessary to all this is a healthy acknowledgement of uncertainty, a disposition that unsettles the kinds of context-blind thinking that Langer considers quite dangerous.

Opposed to mindfulness—indeed, the problem that mindfulness solves—is what Langer calls "mindlessness," unreflectively acting and thinking on one's own "premature cognitive commitments" (22). In contrast to the three main aspects of mindfulness, mindlessness entails

being *trapped by rigid mental categories* for considering what things are or could be; displaying *automatic behavior*, enacted habitually without regard for the nuances of new contexts; and *acting from a single perspective*, as if "there were only one set of rules" for all contexts (16).

Generally speaking, then, Langerian mindfulness is the awareness that one's own perspective is not the only perspective, that the way one approaches objects, actions, people, situations, *et cetera* is not the only way of doing so. A mindful state of being requires opening ourselves up to the possibility that our ingrained assumptions about how we should view and act in the world may not be equally appropriate from one context to the next.

This conception of mindfulness carries through into Perkins *et al.*'s (2000) influential examination of "thinking dispositions" (269). In keeping with Langer, Perkins *et al.* describe mindfulness as an "open and creative state" (284). Moreover, they draw out something that, in Langer's work, is less explicitly foregrounded but still present and important: that "[m]indfulness is associated with...a belief in a constructed and conditional reality, whereas mindlessness is more associated with a commitment to absolutes" (Perkins *et al.* 284).

This aspect of Langerian mindfulness informs composition research, specifically Meade's (2017) discussion of students' dispositions regarding writing. Meade uses mindfulness as one third of a model that, as a whole, describes the student's relationship to writing across time and provides a way to rethink presumed teleologies of one's own development as a writer. The tripartite model involves reflection on the past, mindfulness of the present, and imagination/projection into the future. As it is for Perkins *et al.*, mindfulness in Meade's conception essentially refers to the awareness of the present moment as constructed—in the writing student's case, constructed by the student's conceptions of his own past relationship to writing and by his imagination of what that relationship could be in the future. Mindfulness for Meade becomes a mindset that is open to the possibility that one's relationship to writing could

have been, can be, and could in the future be different from what the writer might mindlessly assume. Thus, Meade's discussion continues the thread that goes back to Langer's original conception of mindfulness: an open and creative state dedicated to unsettling "premature cognitive commitments."

The Theoretical Differences between Mindfulness and a CBT-inspired Pedagogy

Most of the differences stem from the fact that the theoretical framework of Langerian mindfulness articulates no limiting principle by which to decide when to stop unsettling cognitive commitments. In practice, of course, Langer does operate by some unstated, basic assumptions, as do those who follow her in studying mindfulness at a high level.

For instance, Langer insists (reasonably) that mindfulness for aircraft pilots can be of life and death importance. She cites a case in which a pilot and co-pilot, while going through their routine pre-flight checks, mindlessly turned off their anti-icer despite the fact that their flight path would take them through icy conditions. The plane crashed. A bit of mindfulness applied here, Langer argues, could have saved the flight and all on board (Langer 1989, 4).

However, the moral and emotional valence of Langer's argument rests on a deeper, unquestioned assumption: that it matters that the people on board survive. Morbid though it may be to point this out, it is nevertheless true that, within the articulated framework of mindfulness, the assumption that the lives aboard the plane are worth saving is, technically speaking, a mindless assumption. Obviously, no scholar of mindfulness would actually follow mindfulness' logic in this manner—but that is exactly the problem: whatever successful mindfulness-based pedagogies are doing, they must be including assumptions that are not contained within the framework of mindfulness, and which must actually be at odds with mindfulness' basic logic, which meets every assumption with suspicion. In other words, mindfulness may be fully attuned

to the danger of premature cognitive commitments, but what would make a cognitive commitment mature? The logic of Langerian mindfulness cannot answer that question.

To make the point bluntly, the main problem with a pedagogy based faithfully in mindfulness is not that students will somehow come to question the very point of higher education and descend into abject nihilism. The problem is that mindfulness' theory *cannot* be a full articulation of the way in which it is pedagogically practiced; any practice of mindfulness must introduce a limiting principle, explicit or implicit, on the process of unsettling assumptions. This makes mindfulness a difficult tool to ship to students, because all the necessary parts are not included in the basic packaging.

With this in mind, I would differentiate my CBT-inspired approach from current practices of mindfulness in five key ways, all of them related to a greater or lesser extent to the lack of a limiting principle to mindfulness' process of unsettling assumptions.

First, CBT *explicitly* seeks to make selections among certain patterns of cognition, which is important for students as a means of seeking out the frames of mind best adapted to the composing task at hand. Mindfulness as Langer articulates it does *not* provide a clear means for deciding which among these various possibilities—for deciding what the world is and what we should do about it—we should actually choose. Although the act of applying the ideas does imply that such a choice should be made, Langer's discussion does not seem to suggest any reliable way of deciding what choice to make. Indeed, at times, she seems to suggest that such a metric does not even exist (which calls into question the implicit assertion that some ways of operating in this or that context are preferable to others). In other words, mindfulness provides for seeing the possibilities, but not for choosing among them.

Second, and corollary to the first difference, CBT, unlike mindfulness, does not undermine the basic and necessary assumption that some goals (in this case, goals for

writing) can be better or worse than other goals. In this way, CBT acknowledges the importance of goals in the writing process, bringing it closer to something like the Flower & Hayes model of composition, in that the model's theory holds writing to be a goal-driven process. We might productively unsettle, in mindful ways, the means by which we choose to reach a given goal. We might even productively unsettle our attachment to that particular goal. But if we take writing to be a goal-oriented activity—and it seems we should, judging by the existing models of composition—then we should perhaps not unsettle the very notion of goals. The problem is that Langerian mindfulness, as it is usually articulated, does not limit its unsettling process before this point. (If such limiting does occur, it occurs only in practice, and therefore in unarticulated ways that may be difficult for students to pick up on reliably.)

Third, a CBT-inspired pedagogy would acknowledge the inevitability and importance of the kind of thinking Langerian mindfulness calls "mindless." Within the framework of Langerian mindfulness, mindlessness is that brand of thinking that operates on habituated assumptions. However, because mindfulness as a system has no limiting principle for establishing when an assumption has been properly questioned—and indeed, because every new context would presumably call into question all previous assumptions—there is no room within mindfulness' theoretical framework for habitual thinking of any kind, except for the habit of mindfulness itself. Of course, habitual thinking is not only inevitable in day-to-day experience and in writing, but can also be useful if well adapted.

This is not to say that mindfulness *as its practitioners tend to play it out* will be unable to rest on any habitual thinking. Rather, as a pedagogical tool, the framework of mindfulness does not provide students with the theoretical guidance for deciding what kinds of habitual thinking to choose.²

² For an example of how mindfulness-based pedagogy emphasizes unsettling assumptions and deemphasizes resettling on new assumptions, cf. Taczak and Robertson (2017), who articulate the

CBT's theoretical framework, on the other hand, acknowledges the inevitability and potential usefulness of that kind of habitual thinking that Langerian mindfulness calls mindless. As such, a CBT-inspired pedagogy would provide students with a clearer, more immediately actionable framework for guiding their own development as writers.

Fourth, a CBT-inspired pedagogy seeks to address the underlying causes of maladaptive habits of mind, rather than (as mindfulness does) leaving these causes alone and seeking to treat the symptomatic automatic/mindless thoughts. Because mindfulness seeks to let go of automatic cognitions when they manifest, rather than understand the deeper cognitive structures underneath those cognitions, the whole process only focuses on symptoms and needs to be employed repeatedly as such automatic cognitions arise and re-arise, their underlying cognitive causes left unaddressed. Once learned instinctively, a habit of mindfulness could reliably head off these chains of cognitive cause-and-effect at the pass. But if mindfulness does develop as a habit of mind as such, and if such a habit of mind does indeed have the effect of heading off chains of maladaptive cognitions, this is something largely outside the theoretical framework of mindfulness, and it is something much less empirically supported than the more directed and self-aware development of self-guidance within CBT practice.

Moreover, by treating causes rather than symptoms, CBT maintains a level of adaptability in the face of the unknown that mindfulness does not. Mindfulness, as a technique for dealing with maladaptive automatic cognitions, is certainly versatile. After all, the idea of letting go of automatic cognitions and looking at alternatives seems as though it would likely

unsettling process, very robustly, as "the ability to mindfully monitor and consider why specific choices were made in a particular writing moment, including, but not limited to, considering the different types of knowledge(s) learned before and acquired during that particular writing moment" (216-217). The process of resettling on new assumptions comes as an afterthought, with the hope that people will be "able to utilize that knowledge there and elsewhere" (217).

handle any problem that could arise. However, mindfulness still provides a single solution for all problems. CBT allows for multiple solutions, and for those solutions to evolve as needed.

Methodological adaptation is, in fact, built into CBT's very framework, which accounts in large part for its usefulness in treating an enormous variety of mental disorders.

Fifth, and perhaps most importantly, the end goal of a CBT-inspired pedagogy would not be a state of being, as in mindfulness, but rather a doing of action. This is particularly important because an action-oriented pedagogy would be easier for students to access and apply. After all, the first thought of students (as with most people) when asked to *be* something would likely be "Okay, so what does that mean I should do?" As such, CBT's emphasis on action better suits the goal-oriented models of composition I discuss above. It also better suits the goal-oriented model of composition-learning described by the Zimmerman & Risemberg model.

Part Two: Moving Towards Practice

Establishing a practical curriculum inspired by CBT first requires a more in-depth understanding of the model of the mind that CBT uses. To recapitulate briefly, this model entails four main elements, arranged hierarchically: core beliefs, intermediate beliefs, automatic thoughts, and the reactions (emotional, behavioral, and physiological) that automatic thoughts produce. A CBT-inspired pedagogy will need to translate this model of the mind into a model of the *writing* mind, and then to establish a set of practices based on helping students become more aware of the reality that such a model reflects. The project of this section, therefore, will be threefold: to go over the CBT model of the mind in more depth; to translate this model into composition studies terms to build a model of the *writing* mind; and finally to plot out a

curriculum for a writing course designed to help students work with this new model of the writing mind, so as to learn to manage their own composition-learning processes.

The Cognitive Model of the Mind: Automatic Thoughts

Automatic thoughts are the fleeting thoughts that occur when a person's ingrained intermediate beliefs encounter a specific situation. These thoughts "arise spontaneously...and are not based on reflection or deliberation," hence the label *automatic* (J. Beck 77). Within the cognitive model of the mind, automatic thoughts are the proximate cause of the various dysfunctional reactions that CBT seeks to alleviate (J. Beck 18). Although automatic thoughts themselves often pass under the radar of conscious attention when they first arise, the reactions that they prompt register much more strongly with the person (J. Beck 76). These reactions, particularly the immediate emotional reactions, will be "logically connected with the content of the automatic thought" (J. Beck 76).

Despite the fleeting nature of automatic thoughts, attending to them is actually a fairly simple metacognitive move that requires minimal training (J. Beck 75). Indeed, people can usually begin articulating their automatic thoughts upon being invited to focus on what they were thinking immediately prior to a particular emotional, behavioral, or physiological reaction (A. Beck 33). The trick is to make sure that the person is actually recalling, to the best of his ability, the thoughts he really had at the time, instead of trying retroactively to interpret how he could have been thinking (J. Beck 88).

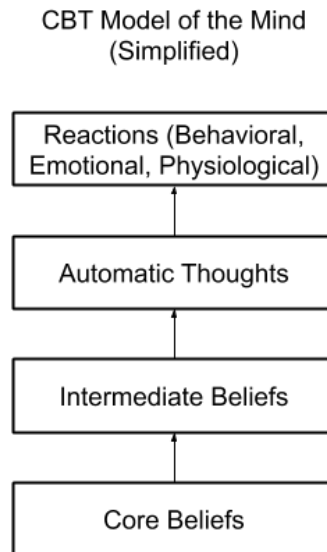


Figure 7: A simplified version of CBT's model of the mind

The Cognitive Model of the Mind: Intermediate Beliefs

Just as various emotional, behavioral, and physiological reactions emerge from automatic thoughts, automatic thoughts themselves emerge from a person's intermediate beliefs. These intermediate beliefs, which are more deeply ingrained than automatic thoughts (but not quite so fundamental as core beliefs) are essentially "patterns of association used to interpret and evaluate experiences" (Leder 2016, 393).

More particularly, intermediate beliefs take the form of attitudes, rules, and assumptions that guide the person's interpretation of situations, thereby producing automatic thoughts (J. Beck 137). To be sure, the exact distinctions between these different forms of intermediate beliefs are less important than the fact that they derive from core beliefs and inform automatic thoughts. That said, as they are expressed in the CBT literature, attitudes are value judgments (*is good/bad*), rules are imperatives (*I must/should do*), and assumptions are

conditional, if-then statements about some aspect of material reality, i.e., not about value (*If _____ happens, then _____ may happen*) (J. Beck 16).

For example, a core belief such as "I'm incompetent" might produce some of the following formulations as the content of an intermediate belief (J. Beck 15):

Attitude: "It's terrible to be incompetent."

Rules/expectations [of oneself]: "I must work as hard as I can all the time."

Assumption: "If I work as hard as I can, I may be able to do some things that other people can do easily." (J. Beck 16)

The Cognitive Model of the Mind: Core Beliefs

As noted, just as automatic thoughts are the products of intermediate beliefs, intermediate beliefs are themselves the products of core beliefs. These core beliefs, when articulated, are simple but profoundly overgeneralized statements about the nature of reality:

Beginning in childhood, people develop certain beliefs about themselves, other people, and their worlds. Their most central or *core beliefs* are understandings that are so fundamental and deep that they often do not articulate them, even to themselves. These ideas are regarded by the person as absolute truths, just the way things "are." (J. Beck 15).

Core beliefs are the epitome of what Ellen Langer calls mindless assumptions, beliefs that are so deep they do not register as beliefs, but rather as something that simply *is*.³ Out of these basic reality statements emerge intermediate beliefs, which in turn give rise (in specific situations) to automatic thoughts, which finally produce dysfunctional reactions (J. Beck 15).

Building a Model of the Writing Mind

I now intend to begin translating the CBT model of the mind into a model of the writing mind, with reference to transfer research and the early composition process models (particularly the original Flower & Hayes model). Although most of the work on writing transfer does not explicitly describe what it assumes to be the structure of the mind that engages in transfer, it is possible to find something of that structure implied in certain common themes within the literature.

Transfer, in simple terms, refers to taking knowledge or skills from one context and applying them in another. Perkins & Salomon's (2012) influential "detect-elect-connect" model is one way of understanding the matter more precisely. According to this model, transfer requires "detecting a potential relationship with prior learning, electing to pursue it, and working out a fruitful connection" (Perkins & Salomon 2012, abstract). There are other forms of transfer and many different frameworks for thinking about how it works, but the basic goal of the field is to investigate how students can learn to transfer knowledge (particularly writing knowledge) between contexts.

Broadly speaking, much of the scholarship on writing transfer argues that helping students learn to transfer requires telling them what is going on, and also signalling to them that

³ To put it another way, if I were to ask you whether you have a "belief" that gravity is real, you might give me a funny look and reply, "Belief? It's not that I believe it. It's just true." In other words, you have a (well adapted) core belief in gravity. You register it not as a belief, but as an apprehension of reality.

it is partly their job to make it happen. Taczak & Robertson (2016) use reflection as a both subject of inquiry and a tool for practice in order to engage students actively in facilitating their own transfer of knowledge. On a much larger scale, Hayes, Ferris, & Whithaus (2017) suggest that macro-level, multi-course writing programs can facilitate transfer in a similar way: by building the program's course structure in a way that clearly signals to students that they will need to be on high alert for the need to hang onto knowledge from the first course to use later in the higher level course. Beaufort's (2016) review of transfer literature extracts four main principles for putting transfer pedagogies into practice. Three of the four principles involve bringing students explicitly into the task of forwarding their own learning of transfer (Beaufort 26-27).

This general notion seems to presume a multifaceted mind that can learn to integrate and synthesize experiential and abstract knowledge, and also learn to monitor itself in the process. Other areas in the literature on transfer suggest that two parts of this multifaceted mind are dispositions and habits of mind—cf. Wardle (2007, 2009, 2012), Nowacek (2011), and Driscoll & Wells (2012), all of whom argue that dispositions and habits of mind are key parts of the transfer equation.

Meade (2017) builds on this literature to articulate a potential relationship between dispositions and habits of mind. On the surface, what Meade does for facilitating transfer is quite similar to CBT in that Meade recognizes the importance of different kinds of cognitions within the mind, and suggests that students should engage with these cognitions and remake them in order to build a new cognitive structure—what he calls the students' "conception[s] of themselves as writers"—that is better adapted to transfer (242).

More importantly, however, the hierarchical relationship that Meade proposes between dispositions and habits of mind matches the hierarchical relationship between core beliefs and

intermediate beliefs within CBT. Meade proposes that "[h]abits of mind happen as a result of a person's dispositions. For example, a person with a problem-exploring disposition relative to a given context is curious about that context. Curiosity is the habit of mind enacted by those with a problem-exploring disposition" (239).⁴ In other words, in the same way that a core belief informs an intermediate belief, so too does a disposition inform a habit of mind.

Indeed, it seems that these concepts—dispositions and habits of mind on the one hand, and core beliefs and intermediate beliefs on the other—are more than similar; they are actually the same things. Recall, from above, that intermediate beliefs can be articulated as attitudes, rules, and/or assumptions:

Attitude: "It's terrible to be incompetent."

Rules/expectations [of oneself]: "I must work as hard as I can all the time."

Assumption: "If I work as hard as I can, I may be able to do some things that other people can do easily." (J. Beck 16)

For comparison's sake, here is what the *Framework for Success in Postsecondary Writing* has to say about curiosity:

Curiosity - the desire to know more about the world.

Curiosity is fostered when writers are encouraged to

⁴ The idea of a "problem-exploring disposition" originally comes from Wardle (2012). Wardle names two kinds of dispositions that students bring to the writing process, problem-exploring and answer getting. In the simplest of terms, a student with an answer-getting disposition wants to find the quickest answer and prove it right, avoiding trial and error and the recognition of other possible answers; a student with a problem-exploring disposition wants to survey those other possibilities, and is curious enough about the problem to undergo a process of trial and error to explore the issue more thoroughly.

- use inquiry as a process to develop questions relevant for authentic audiences within a variety of disciplines;
- seek relevant authoritative information and recognize the meaning and value of that information;
- conduct research using methods for investigating questions appropriate to the discipline; and
- communicate their findings in writing to multiple audiences inside and outside school using discipline-appropriate conventions. (*Framework* 528)

Applying the structure of an intermediate belief to some of the *Framework's* elements of curiosity, we can see how readily a habit of mind fits into the mold of an intermediate belief:

Attitude: "Knowing more about the world is good."

Rule: "I should use inquiry as a process to develop questions relevant for authentic audiences within a variety of disciplines."

Assumption: "If I conduct research using methods for investigating questions appropriate to the discipline in which I am working, then I can discover answers to the questions I am asking."

Translating the *Framework's* phrasings like this takes very few alterations, and one could repeat this translation with each habit of mind, all without distorting the actual content of those habits of mind. I therefore propose that CBT's intermediate beliefs are simply habits of mind by another name.⁵

⁵ One could reasonably ask why I do not equate habits of mind with automatic thoughts, given how similarly named the two concepts are. The answer is that habits of mind are general patterns of cognition,

Dispositions and core beliefs, likewise, bear striking resemblance to one another. Reid (2017) compiled student reflections on writing process difficulties and ran a coded analysis on these reflections, which suggested that certain unhelpful dispositions—confidence, motivation, *et cetera*—lurked under the surface of other, more readily expressed cognitive problems. Perkins & Salomon's (2012) influential "detect-elect-connect" model of how transfer operates aims to teach a way of thinking about a given learning task, and in the process seems to partake of dispositional discourse. Indeed, Perkins & Salomon discuss pedagogical methods that look very similar to CBT methods and Zimmerman & Risemberg's self-regulation method of composition-learning, which suggests that Perkins & Salomon are dealing with the same cognitive structures in students' minds.

Moreover, dispositions and core beliefs are structurally identical, and translating between the two is even easier than translating between habits of mind and intermediate beliefs. The problem-exploring disposition that (as Meade suggests) undergirds curiosity might be expressed in a statement such as "Writing is about exploring problems." Note that this, like a CBT core belief, is a fundamental statement about reality, a statement that this is "just the way things 'are'" (J. Beck 15). In other words, dispositions *are* core beliefs, in the same way that habits of mind are intermediate beliefs.

We have matched dispositions and habits of mind to core beliefs and intermediate beliefs, respectively (see Figure 8). However, if CBT's model of the mind is accurate—and CBT's empirically established efficacy would suggest that it is—then there are two other aspects of the model unaccounted for on the composition studies side: automatic thoughts, as well as the reactions they produce.

whereas automatic thoughts are what arise when such a general pattern of cognition encounters a specific situation (see Figure 6).

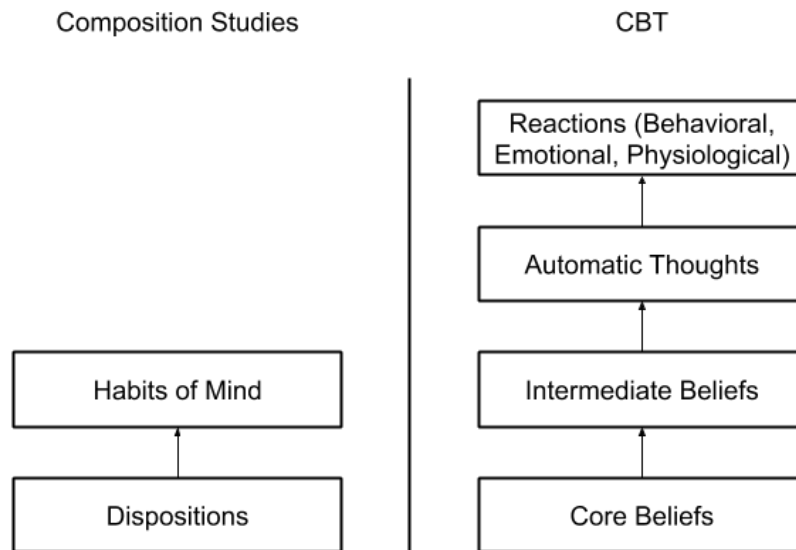


Figure 8: Comparing CBT's model of the mind to transfer literature's habits of mind and dispositions, as hierarchically arranged by Meade (2017)

To find the counterpart of automatic thoughts in the writing process⁶, I turn back to Flower & Hayes (1981) and their discussion of the goals that a writer semi-consciously generates during the writing process. These goals constitute the next level of cognition on the composition studies side of the model, alongside (and identical to) automatic thoughts.

Just as automatic thoughts are difficult to notice without the person being aware of their existence and paying direction attention to them, the goals that Flower & Hayes discuss are usually "so basic that they won't even be consciously considered or expressed"—unless, of course, you ask the person to consider and express them, which is what Flower & Hayes did (Flower & Hayes 1981, 381). Notably, this simple method of eliciting writing goals is basically identical to the usual method that CBT uses to elicit automatic thoughts. To make the

⁶ Or rather, to find the *kind* of automatic thought that is most relevant to the writing process.

comparison as clear as possible, here is how Flower & Hayes describe their method of asking patients to generate think-aloud protocols:

We ask [our participants] to work on the task as they normally would—thinking, jotting notes, and writing—except that they must think out loud. They are asked to verbalize everything that goes through their minds as they write, including stray notions, false starts, and incomplete or fragmentary thought. (Flower & Hayes 1981, 368)

In other words, Flower & Hayes asked their participants to articulate thoughts that would normally not rise to the level of articulation (to look under the hood, so to speak) in an effort to pick out those cognitions that operate mostly invisibly until directly observed.

The method first used by Aaron Beck, the founder of modern CBT, was almost identical to the method used by Flower & Hayes. Beck "instructed the patients, 'Whenever you experience an unpleasant feeling or sensation, try to recall what thoughts you had been having prior to this feeling.' This instruction helped them to sharpen their awareness of their thoughts" (A. Beck 33). As noted in the model earlier in this thesis (see Figure 6 on page 17), modern CBT treats automatic thoughts as the proximate cause not just of emotional reactions, but of physiological reactions and (importantly) behavioral ones, as well.

In other words, both writing goals and automatic thoughts are fleeting cognitions that operate just beneath the surface of attention, drive certain behaviors or emotions, and usually continue to go unnoticed until the person pays direct attention to them. It would seem we are not talking about two different things (see Figure 9).

To be clear, when I am speaking of writing process goals, I do not mean the goals a student finds written in an assignment prompt (e.g., "Pick two plays we have read this semester

and find a common theme to compare between them"), nor do I mean the goals a more advanced writer might set for himself at the start of the process (e.g., "I want to compare Shakespeare's *Merchant of Venice* to Ben Jonson's *The Alchemist* to compare the theme of money and its influence on Christians' behavior"). What I mean are the fleeting, in-the-moment goals that guide the writing process without being fully articulated (e.g., an urge to make a sentence grammatically correct before writing the next one). I am referring to the kinds of goals that Flower & Hayes' participants articulated in their protocols, but which those participants would not have recognized if they had not been asked to articulate them, even though such goals, left unstated, would still have driven the moment-to-moment process of composition.

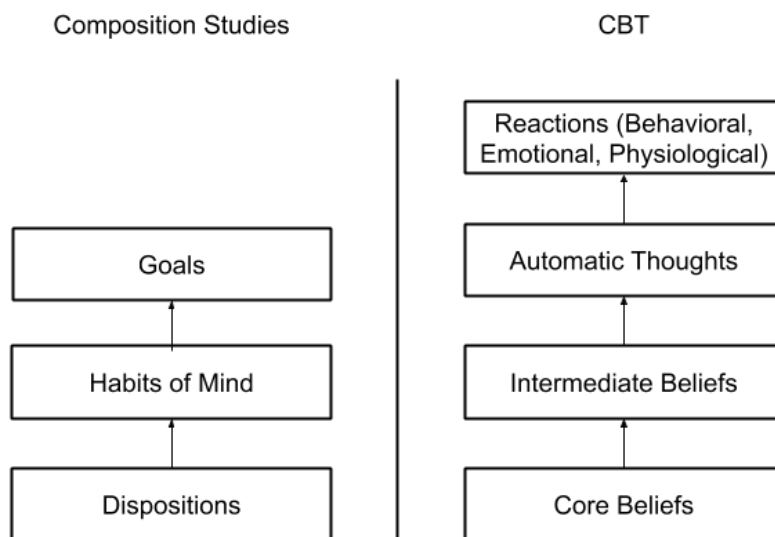


Figure 9: Adding goals (from composition process modelling) to the model of the writing mind

The last step in building this model of the writing mind is to establish, in composition studies terms, what it is that such writing goals produce as reactions in the writer. I want to focus

on behavioral reactions, as we are mainly concerned with what a writer actually *does* as a result of his goals, habits of mind, and dispositions.⁷

This is perhaps the easiest element of the model to explain. Flower & Hayes (1981) explain that goals drive the writing process (and the other composition process models take up that principle). Those things that a writer's goals drive him to do, I call *writing behaviors* (see Figure 10). In my experience tutoring and teaching writing, one common goal among writers is to write a sentence perfectly on the first try. With this as the goal, the behavior that often manifests for students is staring blankly at the page while typing at an excruciatingly slow pace and constantly second guessing themselves, never letting themselves type out a word they do not want to keep. Alternatively, a student's goal might be to type out his thoughts so he can look at them later. In this case, the goal might produce the writing behavior of writing things out quickly and moving onto the next sentence.

⁷ Almost certainly, the emotional and physiological reactions entailed in CBT's model come into play, as well, and these are certainly worthy of further study. For instance, it might be the case that certain unhelpful writing goals produce stress as an emotional reaction. This might reinforce a disposition of low self-efficacy, which in turn might promote further stress-creating writing goals—and so on and so forth in the type of feedback loop that Zimmerman & Risemberg (1997) describe. However, as goals are action-oriented in nature, it seems more productive for the moment to confine our discussion to the actions—the behaviors—that this particular type of automatic thought produces.

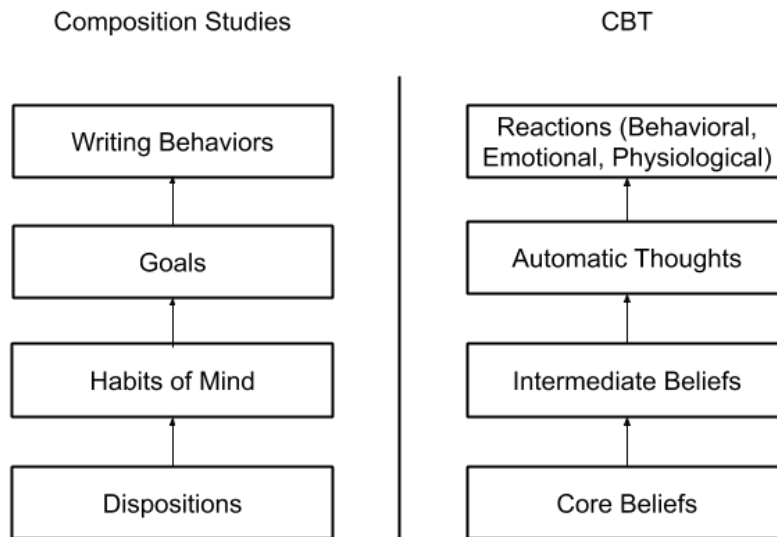


Figure 10: Complete model of the writing mind alongside CBT's model of the mind

The comparison between CBT and the transfer literature leads us here, to a model of the writing mind built out of concepts from composition studies that correspond to the elements of CBT's model of the mind. In the CBT model of the mind, core beliefs lead to intermediate beliefs, which lead to automatic thoughts, which produce certain kinds of reactions. In the model of the writing mind, dispositions lead to habits of mind, which lead to goals, which in turn produce certain writing behaviors.

The CBT model needs no justification from me; the vast amount of empirical support for CBT as an effective therapy speaks to the model's functional accuracy. Obviously, the model I have put together has no such empirical support, except insofar as it is an accurate translation of the CBT model. That said, I can offer a hypothetical in order to show how this model of the writing mind can give a plausible account of the cognitive structure underlying a specific writing difficulty.

Imagine you have a writer displaying the writing behavior, mentioned above, of looking at a page and writing very slowly, never continuing onto the next sentence before painfully writing through the one before it. This would be his writing behavior.

You could ask him, perhaps, to pause for a moment and consider why he is doing this. Possibly, his answer would be that he was trying to word things perfectly. This would be his goal.

If you were then to ask the student why he wanted to word things perfectly, or why he felt this was an important thing to do, he might tell you (as many students have told me) that he does not like to write more than one draft. Presumably, you could frame this in several ways: as an attitude ("Writing more than one draft is spending more time than I should need"), as a rule ("I should only write one draft"), or as an assumption ("If I don't get this just right in one go, I will have to do it over"). All of this would be the student's habit of mind.

At this point, you might finally ask the student, "If those habitual thoughts are true, what does that mean about writing?" or perhaps, "...what does that mean about you?" Here, you are asking for the fundamental belief about reality upon which the student is basing his habit of mind. If the question is asked and understood clearly, the student might answer something like, "I mean, good writing doesn't need revision," or "I just don't revise well."⁸ A statement like these would be the student's base disposition.

Obviously, not all students would report this exact sequence of cognitions. I offer this example only as a means of showing that this model of the writing mind can trace a plausible chain of cognition all the way from a given writing behavior (trying to get a sentence just right before moving on) down to a base disposition ("Good writing doesn't need revision").

⁸ The disposition would more likely be the first: "Good writing doesn't need revision." When Sanders-Reio *et al.* (2014) studied the effects of students' beliefs on their writing performances, they found that students' beliefs about writing were a better predictor of performance than students' beliefs about their own writing abilities.

Putting Together a CBT-Inspired First-Year Writing Course

The course I propose is titled "Writing and the Mind." The syllabus runs for fifteen weeks, split between two units: Theories of Composition and Theories of Reflection.

In Unit 1, Theories of Composition, students will read a variety of sources meant to introduce them to different ideas of what composition is and how it works: classical texts on the steps of producing rhetoric (i.e., invention, *et cetera*); essays by poets and authors about the process of their craft; modern educational texts on the writing process, intended for student and instructor audiences, alike; and likely at least one of the composition process models cited in this thesis. While they study these theories, students will also work (via reflective writing assignments and individual meetings with the instructor) to recognize and articulate the cognitive structures underlying their own writing processes—their own unstated theories of composition. Unit 1's final writing project asks students to pick a theory of composition and attempt to play it out in their own writing processes.

In Unit 2, Theories of Reflection, students will read sources meant to introduce them to different ideas about the place and purpose of reflection in the writing process: older and modern educational theories pertaining to reflection; essays from literary minds on the process of revisiting their past works; and modern guidelines for teaching reflection as a part of writing in high schools and colleges (e.g., Common Core standards and college writing program statements). Throughout this unit, students will also be reflecting on the writing-related cognitive structures they will have articulated during Unit 1 and working to tweak those structures in ways that they determine would be more helpful to their writing processes. As in Unit 1, students will accomplish this mainly through reflective writing assignments and individual meetings with the instructor.

The final writing project of Unit 2 asks students to create their own unified theory of writing—of what writing is and how it works—blending elements of the composition theories from Unit 1 with elements of the reflection theories from Unit 2.

Overall, "Writing and the Mind" blends cognitive self-investigation with the study of theories of writing and reflection, which is the course's ostensible subject of inquiry. Truthfully, though, neither component—the self-investigation nor the study of writing and reflection—is subordinate to the other, and the two interweave over the course of the semester. In selecting theories of writing and reflection as the subject of inquiry for the course, I have tried to make the subject of inquiry closely related—hopefully, *usefully* related—to the cognitive self-investigation. The result is a course that asks students to look both within and without—into their own conceptions of the writing and the writing process, and outwards to the writing-related conceptions of others in order to see how those conceptions might (or might not) benefit the students' own. As such, the course curriculum asks students to engage in deep introspection into the cognitive structures that guide their writing processes, and provides them with a rich theoretical environment in which to do this work (see Appendix E: Syllabus Frontmatter for "Writing and the Mind" for a more detailed overview of this hypothetical course).

Unit 1 - Theories of Composition

The first unit spans eight weeks, with students studying various texts laying out theories of composition while simultaneously reflecting on their own conceptions—one might say their own deeply held theories—of the same. The early stages of this unit introduce students to basic CBT concepts, including the CBT-inspired model of the writing mind, so that the students understand the vocabulary and structure of the reflective exercises they will be expected to perform. This early vocabulary and cognitive-structural awareness is also intended to make it

easier for students to analyze the conceptions of composition in the sources they read: how does this writer conceive of composition? What kinds of assumptions or conceptions seem to underlie—or could underlie—this source's view on the composition process?

Unit 1 - Theories of Composition

Week 1

Theory of Composition 1
Preliminary Essay (2 pages in response to ToC 1)

Week 2

Short Reflective Assignment 1: Identifying Unhelpful Writing Behaviors
CBT 101: Cognitive Structures
Short Reflective Assignment 2: Becoming Aware of Self-Generated Goals

Week 3

Theory of Composition 2
Short Writing Assignment: Response to ToC 2
Short Reflective Assignment 3: Articulating Self-Generated Goals

Week 4

INDIVIDUAL CONFERENCES: Articulating Self-Generated Goals

Week 5

Theory of Composition 3
Short Writing Assignment: Response to ToC 3

Week 6

CBT 201: Intermediate Beliefs
Short Reflective Assignment 4: Articulating Habits of Mind

Week 7

Short Reflective Assignment 5: Articulating Dispositions
INDIVIDUAL CONFERENCES: Relating Habits of Mind to Dispositions

Week 8

DUE - Writing Project 1: Examining and Playing Out Conceptions of Composition

As the unit progresses, a series of reflective assignments, interspersed with the course readings, help students go down through the structures of their own cognitions about the writing process: establishing the writing behaviors that inhibit their writing processes; articulating the goals (or automatic thoughts) that seem to spur those behaviors; fleshing out the habits of mind

(or intermediate beliefs) that produce those goals; and finally defining the dispositions (or core beliefs) from which those habits of mind emerge (see Appendices G and H for these reflective assignments). Two rounds of individual conferences, held in lieu of classes on weeks 4 and 7, give students the opportunity to explain their investigation to the instructor, voice any confusions, and receive advice and guidance as necessary.

Along the way, students engage with theories of composition that are meant to give them insight into how others conceive of writing and the writing process. For the unit's final project—Writing Project 1—students study one of these theories to define the underlying dispositions. They then attempt to cognitively adopt this disposition for the completion of a short writing task, and afterwards reflect on the process of doing so. The actual graded product of Writing Project 1 consists of the short writing task and the longer reflection.

Writing Project 1

Examining and Playing Out Conceptions of Composition

Pick a writer from this unit and identify his or her conception of composition. Once you have figured out what you think this person believes composition *is* at a fundamental level, mull that over in your head for a few days, and then complete the following short writing task *while writing as if that person's conception of composition is true*:

Write a letter home (250-300 words) explaining something you have learned (in another class) here at college.⁹

Once you have finished, reflect (in 750-1000 words) on the process of completing this task while operating upon the conception of composition you chose. Try to get at some of the following questions:

- Was it easy to write as if your chosen conception of writing were true? Was it hard?
- What kind of things did you end up doing (or thinking) while writing that you usually don't?
- Do you think this conception of composition helped improve your usual writing process? Did it hinder the process? Either way, how so?
- In general, how did the process of completing the short writing task go, and what do you think you've learned about your own writing process from the attempt?

⁹ Naturally, this task can change, but should remain fairly simple so as not to overcomplicate the greater cognitive writing task of the project.

The first unit, as a whole, helps students start to manage the process of learning to write. Students begin to distinguish between writing goals, habits of mind, and dispositions. They learn to attend to their *actual* cognitions rather than retroactively interpret them. Most of all, they begin to map out their writing-related cognitive structures, to articulate the various beliefs they maintain about what writing is and how it works.

Unit 2 - Theories of Reflection

The business of Unit 2 is to help students tweak the cognitive structures they will have begun exploring and articulating in Unit 1. This consists of helping students through two major steps: first, identifying deep and unhelpful dispositions they hold about the writing process (basing their decision on their introspective work from Unit 1); and second, making a cognitive shift, i.e., lessening the extent to which they hold their old writing beliefs and increasing the extent to which they hold their new, more helpful beliefs. Given how deeply rooted dispositions/core beliefs can be, making this cognitive shift is obviously more complicated than simply choosing to do so. Such choices, if made with seeming ease, may really be mere lip service.

Fortunately, CBT offers many examples of practices that can help patients modify their cognitions. Less fortunately, only a few of them are particularly relevant to, or adaptable into a writing course. Out of the practices that might adapt, most lend themselves more to in-person talks or conferences with students than to actual written assignments, and in any event are a large part of what many writing instructors already do: using Socratic questioning to poke at unhelpful or inaccurate conceptions and beliefs, giving appropriate self-disclosure of the teacher's personal experience, *et cetera* (J. Beck 152).

There is, however, one particular CBT practice that could be productively adapted into a writing assignment: acting "as if"—that is, acting as if a certain preferred cognition is true, with the understanding that "changes in behavior...often lead to corresponding changes in belief" (J. Beck 164). It is similar to the behavioral experiments that inform some of the exercises in Unit 1, in that both practices use behavior to get at cognitions in some way. However, where behavioral experiments use behavior to test the truth of a belief, the acting "as if" exercise uses behavior to *change* a belief for a preferred one.

That first step of selecting an old belief to change and a new belief to replace it occurs in the first week of Unit 2 (week 9). The initial reflective assignment in the second unit (Short Reflective Assignment 6) asks students to decide, based on their Unit 1 articulations of their beliefs about writing and the writing process, to choose a disposition that they believe is hindering them in their writing processes. Week 9 also introduces students to some basic practices within CBT designed to help people not just pay lip service to new, more useful beliefs, but actually to come to believe them—specifically, the technique of acting "as if" a belief is true. Students, at this point, already have some experience with this technique in the form of Writing Project 1. The task for Unit 2 is to turn that technique more directly towards the students' own ends. Another round of individual conferences accompanies this prep work for the unit, in order to help orient students towards exactly what they are being asked to do with their selected old and new beliefs.

Unit 2 - Theories of Reflection

Week 9

CBT 301: Changing Cognitive Structures (Writing "As If")
Short Reflective Assignment 6: Selecting a Disposition to Change
INDIVIDUAL CONFERENCES: Reviewing Plans to Change Dispositions

Week 10

Theory of Reflection 1
Short Writing Assignment: Response to ToR 1

Short Reflective Assignment 7: Report on Disposition Progress

Week 11

Theory of Reflection 2

Short Writing Assignment: Response to ToR 2

Short Reflective Assignment 8: Report on Disposition Progress

Week 12

Theory of Reflection 3

Short Writing Assignment: Response to ToR 3

Short Reflective Assignment 9: Report on Disposition Progress

Week 13

INDIVIDUAL CONFERENCES: Discussing Progress with Changing Dispositions

Week 14

Short Reflective Assignment 10: Plan for Improving Writing Process in Future Endeavors

Week 15

DUE - Writing Project 2: Unified Theory of Writing Process, Combining a Theory of Composition and with a Theory of Reflection

The rest of the unit proceeds routinely, with a reading on a new theory of reflection being introduced each week, coupled with a short writing assignment in response to that reading. All the while, students are asked to engage in the CBT-inspired practice of *writing as if* the new disposition they have chosen is true. A recurring reflective assignment (listed in the syllabus as Short Reflective Assignments 7, 8, and 9) accompanies these short writing assignments to give students a chance to reflect on their progress with their dispositional adjustments. A final round of individual conferences in week 13 uses these reflective assignments as a record of students' progress.¹⁰

¹⁰ I am borrowing from Taczak & Robertson (2016) in using theories of reflection as the subject of inquiry for the second unit. As they argue, doing so provides students with a clearer understanding of what exactly they are meant to be doing, or could be doing, in their own practices of reflection. I use this particularly for the second unit, because this is the moment at which students are called on not merely to investigate and understand their own conceptions of the writing process, but to reflect upon them in an evaluative light. Just as reflection upon writing must happen after some writing has been produced, reflection upon cognitive conceptualizations of the writing process must happen after a clear cognitive structure has been conceptualized.

Reflective Assignments 7, 8, and 9

In your last writing assignment, how did your efforts fare with acting as if your selected conception of the writing process is true? How much did you feel yourself operating on the old conception versus the new one? What did you think of the final product of your writing? Do you think it was made better for trying to operate on the new conception versus the old one? Worse? Hard to tell at this point? In general, how is the process of trying to shift your thinking going? (200-250 words)

Admittedly, this writing-as-if exercise might seem a rather tricky cognitive maneuver to ask of students, given that the "acting" in question would be happening largely in their heads, the same place where all the content-oriented thoughts of writing are supposed to be happening. In CBT, after all, the behavior in question is largely physical. Behaviors in writing are only halfway so; they entail movements of the mind as much as (or perhaps more than) movements of the body. One cannot mindlessly adopt a new writing process, in other words. However, from my own experience asking students to try new ways of writing—including the students I am teaching while writing this thesis—I have found it less of a challenge than one might expect. Students often seem eager to try out new ways of writing where old ways have frustrated or failed them.

In the second-to-last week (week 14), students engage in the last reflective exercise of the semester: developing a plan for improving their writing processes in the future. One could argue that such a reflective move would be better after the final writing project of the course, which occurs in week 15, and possibly it would be. However, I have left the final reflective assignment in week 14 for two main reasons: first, to ensure students do not see it as an afterthought to the major writing project; and second, to give students some time to plan a writing process that might well help them as they move into that major project. In this way, and

in keeping with CBT's practice of checking cognitions against observed reality, the final two weeks give students a chance not only to theorize, but also to test a new writing practice.

The final writing project, Writing Project 2, asks students to select elements from among the various theories of composition and reflection studied throughout the semester in order to construct a unified theory of writing—of what it is and how it works. The purpose of making this the final writing project is to allow students the chance to gather what they have learned about themselves and their own thinking, and to produce a generalizable theory that could be useful in other contexts or even to other people. In the process of producing this theory, students solidify much of what they have done over the course of the semester.¹¹

Writing Project 2 Creating a Unified Theory of Writing

We have spent a lot of time this semester discussing different ideas about what writing is about, what it is, how it works, etc. All of these are, fundamentally, theories of writing. Your job is now to map out your own theory of writing—of what writing is and how it works (in 1750-2000 words).

You may well ask what it means to develop a theory. In the simplest of terms, a person develops a theory when he looks at a bunch of things happening in the world, considers those things for a while, and then says, "I think *this* is what's going on with all of that." Your job is to figure out what you think is going on with writing.

I want to see a final product that lays out a clear theory of how writing works, points out the influences that other theories have on your theory (as well as where your theory differs from those influences), and makes a case for why your particular theory of writing is better than other available ones. (Again, a "better" theory is typically one that more accurately and cohesively accounts for the ground level realities being theorized about.)

You may draw on any of our readings to help you construct your theory, and you may mix and match among those readings as you see fit. Your theory should account for both composition and reflection, *or*, if it does not, you should give good reason why you do not consider one or the other to be a fundamental part of writing and how it works. You are free to make whatever decisions you want in this regard, but make them well, and have reasons for making them.

¹¹ Here, again, I am borrowing—partly intentionally, partly incidentally—from Taczak & Robertson (2016), who conclude their own reflection-theme curriculum with an assignment that asks students to come up with their own theories of writing.

Be advised: this is not an easy task. It is something you will want to start early, struggle with, come talk to me about, struggle with some more, and finally start to articulate. This will likely frustrate, confuse, and befuddle you as you work on it. In the end, however, you will have a much better idea of what *you* think about writing, at the most basic of levels. It will be a working foundation of knowledge that you will be able to use and build upon as you move forwards in college.

Conclusions

This thesis has examined the potential usefulness of a writing pedagogy inspired by the principles and practices of Cognitive Behavioral Therapy. This work builds on research into composition processes and composition-learning processes, filling a gap in the current literature: the process by which writers learn a composition-learning process. In other words, this thesis goes beyond how people write and beyond how people learn to write, and seeks to understand how people learn to learn to write.

Although mindfulness-based pedagogy makes moves towards this goal, a CBT-inspired approach, as I explained above, has several advantages that mindfulness does not. **First**, this new pedagogy explicitly seeks to make selections among certain habits of mind, which the articulated logic of mindfulness does not allow. **Second** (and corollary to the first point), unlike mindfulness, a CBT-inspired pedagogy leaves intact the basic idea that certain goals, habits of mind, dispositions (or cognitions in general) can be better or worse than others. **Third**, and on a similar note, this pedagogy acknowledges that "mindless" thinking, in the Langerian sense, should not be shunned simply because it is mindless; it is not necessary to do away with all cognitive assumptions (as the logic of mindfulness, played out faithfully, dictates) but rather to get in one's head the right cognitive assumptions. **Fourth**, the pedagogy I am proposing seeks to address not just unhelpful habits of mind, but the whole cognitive structure of which habits of mind are just one piece; in other words, it addresses not just symptoms, but also causes. **Fifth**, this CBT-inspired pedagogy asks students not to be writers, but to do writing; indeed, it takes

the doing as the substance of the being (in the sense that "writer" means "one who writes") thereby reframing the state of being mindful into the more immediately practicable action of investigating one's own cognitions.

Because of these differences from a mindfulness-based approach—particularly the final difference—the pedagogical theory I propose in this thesis more coherently extends the goal-driven conception of the writing process found in early cognitive composition research.

What emerges from this theory is a pedagogy whose purpose—to help students understand how their own minds operate during composition—is particularly relevant to research on transfer of writing knowledge and skills. With reference to CBT's model of the mind, we can negotiate between early cognitive composition process research and the literature on transfer to build a single, cohesive model of the writing mind.¹² This model can plausibly describe how a student's unhelpful writing behavior could be rooted in a deeper cognitive structure that bottoms out at an unstated disposition about the nature of writing, itself.

Finally, based on this model and its backing theory, I have proposed a curriculum for a specific course, "Writing and the Mind." This course is designed to help students understand and use the tools of CBT to learn to learn to write. By the end of this course, students would have begun to engage in processes resembling Zimmerman & Risemberg's (1997) self-regulation, so as to bring their composition processes closer to the advanced processes described in work of Flower & Hayes (1981), Hayes (1996), and Bereiter & Scardmalia (1986,

¹² If my theory has a flaw, it will most likely be a translation error between CBT and composition studies. In other words, the curriculum I have proposed based on this model will itself need testing in order to ensure that it accurately translates and acts upon the well-supported model of the mind found in CBT. The CBT model is, itself, very well supported by the cognitive psychology literature. What needs further investigation in composition studies is whether the pedagogy and curriculum I have proposed accurately translates CBT's model of the mind into a model of the writing mind. Presumably, writing should not be fundamentally different from any other kind of cognitive activity. The question would be whether the translation I have made distorts any of the particular levels of cognition. I have attempted to avoid any such distortions; it is always possible that I have failed.

'87). More importantly, students would have acquired the tools to keep moving down this path on their own.

It is worth noting that I have chosen to make this course, "Writing and the Mind," heavily individualized. Students determine their own cognitive needs as regards their writing processes (with some guidance from the instructor and some inspiration from the course readings). Leaving this agency with the student accords with the CBT principle of establishing a partnership—less overtly didactic than cooperative—between patient and therapist. It seems reasonable to recreate this dynamic in the course; one can easily imagine a well-meaning instructor laying his own ideas about the writing process overtop of his students' ideas. This would not only risk overgeneralizing the instructor's ideas, but also rob students of the experience of working through their own real cognitions, which is of course the whole point of the course.

That said, it would probably be possible to take a more top-down approach if guided by the *Framework*. If we take the *WPA Outcomes Statement* (2014) as a starting point and select (for example) an improvement in critical thinking as our goal, then we can begin to use the reflective assignments and guided introspection of "Writing and the Mind" to move towards that goal.

Critical thinking, as the *Outcomes Statement* puts it, is "the ability to analyze, synthesize, interpret, and evaluate ideas, information, situations, and texts." In other words, critical thinking is the ability to make sense of complex, cluttered, or otherwise difficult-to-understand information and then to judge that information according to certain purposes and standards of logic.¹³ A certain kind of attention is necessary for this kind of thinking, an attention that does not

¹³ Metaphorically speaking, it might be described as the ability to separate all the different colors out of a giant, mashed-up ball of Play-Doh so that one can see them more easily and use them to begin building something new.

come naturally. It is probably best expressed in the *Framework's* habits of curiosity, openness, and metacognition. With these three habits of mind as guideposts, it would be a simple matter to adjust the curriculum of "Writing and the Mind" for this more guided purpose.

It should even be possible for instructors or administrators to incorporate elements of the curriculum into an existing first-year writing course. Writing programs with established, standard syllabi for first-year courses may find some of these introspective assignments useful for clarifying the goals of the course to their first-year students (as well as to their first-time graduate student instructors). On the other hand, programs with new or developing curricula might find this kind of introspection to be an easy-to-adopt method of aligning their curricula with the pedagogical goals outlined in the *Framework* or some other target standard.

Overall, I hope to offer a means of moving forwards with conversations about engaging students' cognitive processes in their writing educations. As I said at the beginning, work on this topic is nothing new. However, little of it has gone as far afield from composition studies as it perhaps should have. If we are interested in how our students think, it would make sense to converse more frequently with those fields that are interested in how people in general think, such as cognitive psychology.

More particularly, this thesis provides a potential platform for further transfer research. CBT-inspired research methods may provide more solid answers to some of transfer's longest-standing questions. What kinds of dispositions are required for transferring knowledge and skills from one context to another? As to the knowledge and skills being transferred—what are they, cognitively speaking? Are they habits of mind? Goals? Something else, altogether? Transfer scholars have already done productive research into questions like these—going back to Elizabeth Wardle's (2012) theorizing of answer-getting and problem-exploring

dispositions—but CBT provides a new means of investigation, one that is in-depth, nuanced, and backed by tremendous empirical support.

At a more basic level, to the extent that a CBT-inspired pedagogy is effective, it makes a strong case for the effectiveness of a greater emphasis on explicit instruction in composition pedagogy.¹⁴ Although much transfer pedagogy suggests explicitly bringing students into the task of examining their own thoughts about writing, there still seems to be an aversion to making it clear to students that the subject of inquiry in their first-year writing courses—be that subject Digital Forms, or Place and Belonging, or even Writing—is actually secondary in importance to the *method* of inquiry the students are supposed to be learning.

Of course, many instructors *do* explain the purpose of assignments and course structures to their students. My point is that, as long as students see this kind of explanation as only an aside to the content of their first-year writing courses, they will likely focus on simply learning to write at the expense of learning to learn to write. As long as we show students that our main focus, as their first-year writing instructors, is on our courses' subjects of inquiry, our students will pay more attention to those subjects than to the methods of investigating them. To use a carpentry metaphor, they will be looking at the table they are building, and not the condition of the tools with which they build.

But those tools—those *thinking* tools—are the main thing we want our students to take away from their first-year writing courses. These courses are not simply an introduction to communicating in college; they are an introduction into *thinking* in college. The process of critical inquiry that students learn from their early essays is the kind of thinking that fuels academic pursuit in the broadest sense. That trial-and-error process of having a thought, playing it out, and then amending it—that is the process of inquiry that undergirds everything

¹⁴ In addition to, not at the expense of, experiential, practice-based learning.

from historical research to the scientific method. It is the most fundamental kind of problem-exploring thinking, the kind that is entailed in saying, "I *think* this is right. Is it?"

This is why it is necessary not just that students learn to write in their composition courses, but that they *learn to learn to write*. Rather than simply understand how to produce a good essay, students should understand how to improve the cognitive tools with which they can produce good essays. More important than the apprentice's table are his tools, in other words. The table stays where he leaves it. The tools he carries with him; they are the real focus of his learning. Likewise, the student writer must learn not how to make a better essay, but how to make himself a better writer. That is the point of introducing someone to college writing.

A CBT-inspired pedagogy accomplishes this more directly than mindfulness-based pedagogy, Zimmerman & Risemberg's (1997) self-regulation, and even reflection-based transfer learning such as Taczak & Robertson's (2016). From the start, a CBT-inspired pedagogy focuses the student's efforts on the real goal of improving himself as a writer. All the assignments are clearly in service of that; the explicit emphasis is on improving the writer, not merely the writing. Such a pedagogy proposes to make a qualitative change to the way students understand the goals of the course: not learning to write in the service of producing good essays for the course, but producing good essays for the course in the service of learning to write. That, after all, is what we really want for our first-year students, but until they understand that, they will continue to look at the table and not at their blunt tools.

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Appendices

Appendix A: Composition Process Models

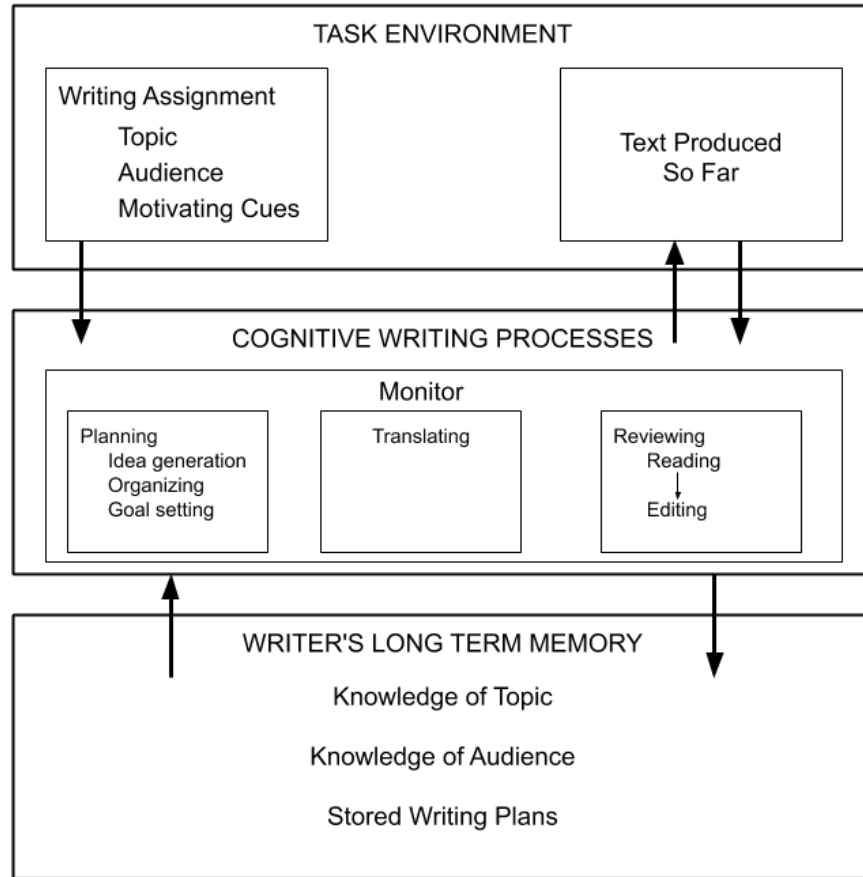


Figure 1: Flower & Hayes 1981 model, adapted from a combination of Flower & Hayes (1981), p. 370 and Hayes (1996), p. 2

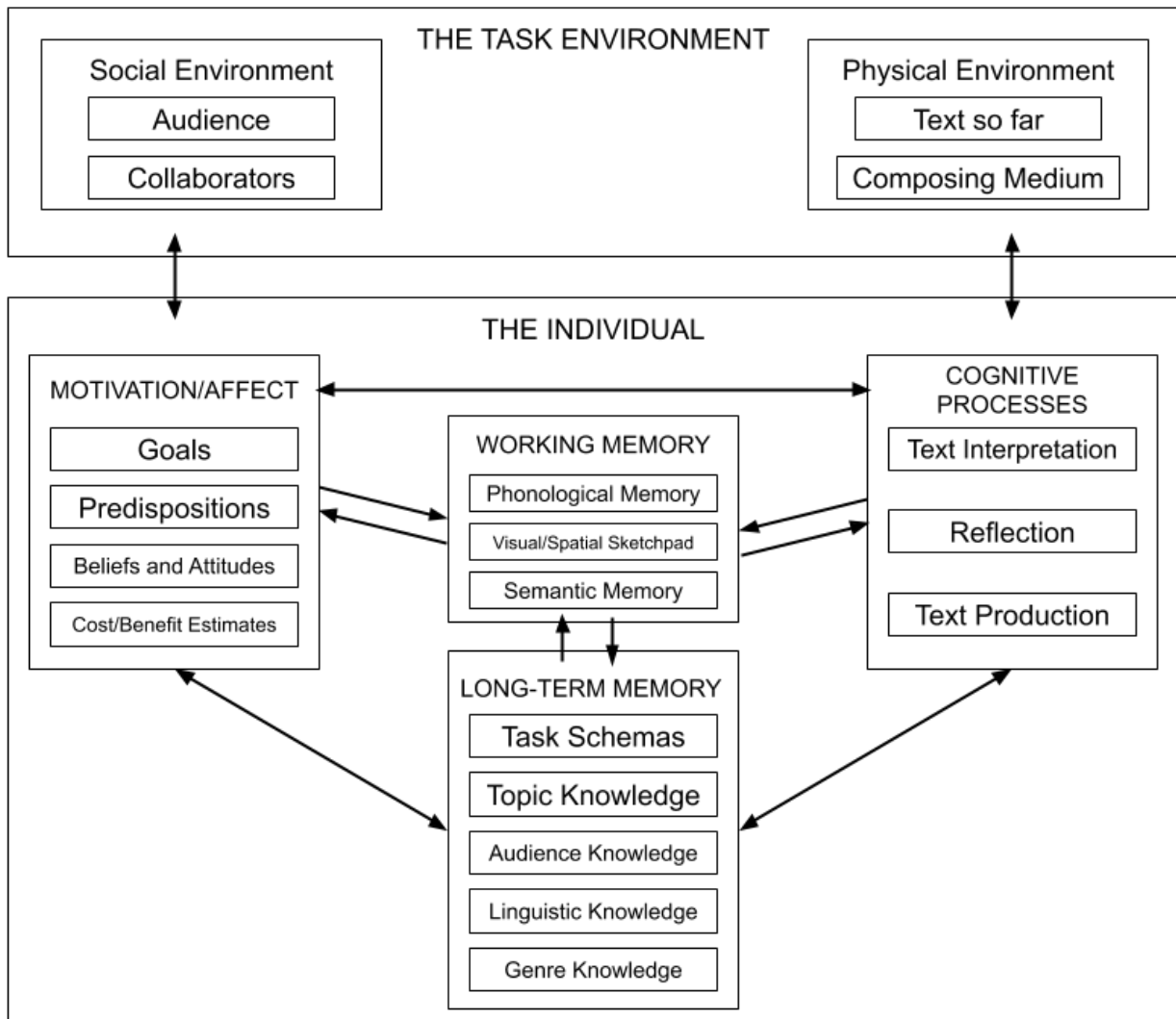


Figure 2: Hayes revised model, visually copied from Hayes (1996), p. 4

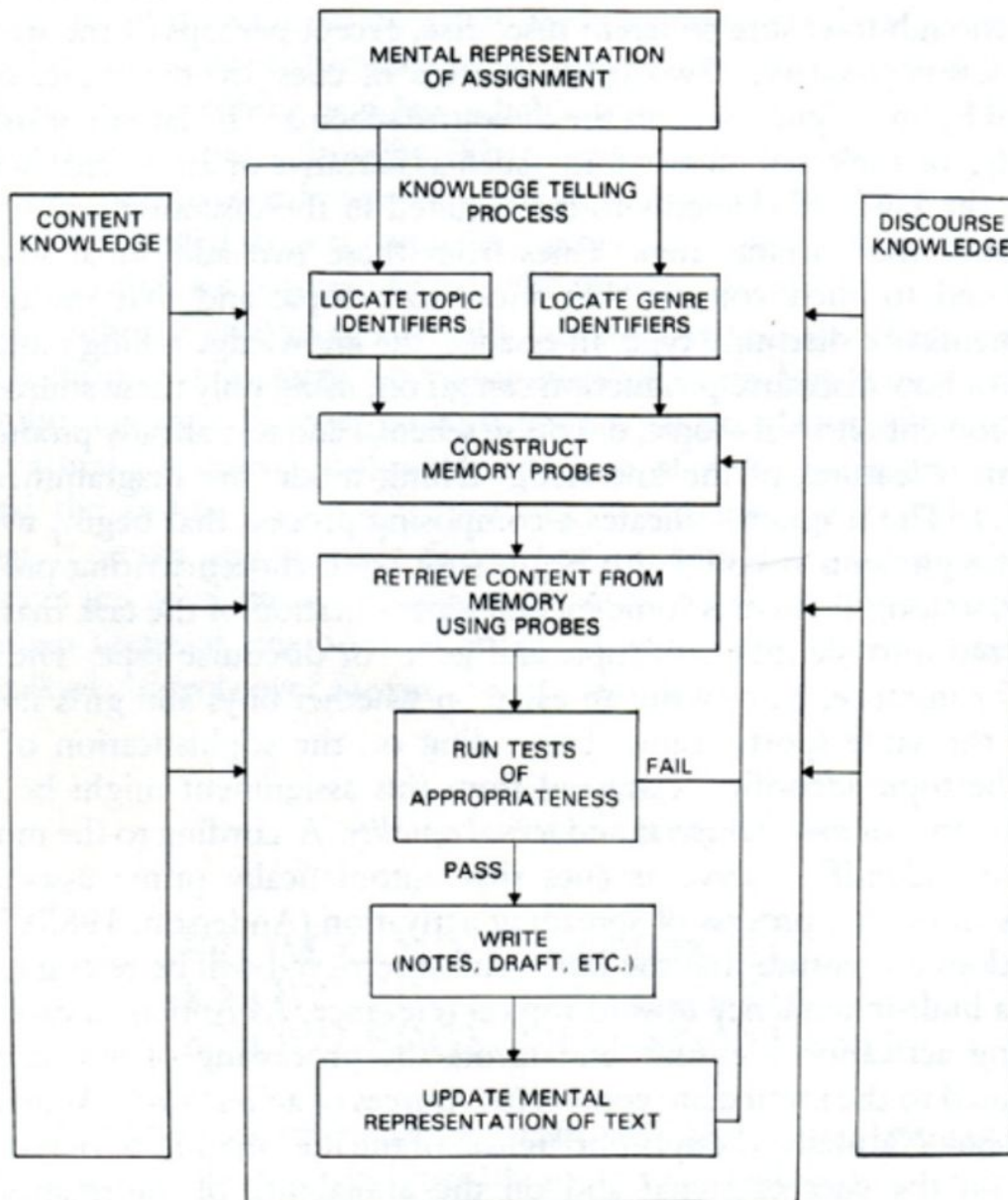


Figure 3: Bereiter & Scardamalia knowledge-telling model, from Bereiter & Scardamalia (1987), p. 144,
downloaded from https://www.researchgate.net/figure/Bereiter-and-Scardamalias-knowledge-telling-model-1987_fig1_276486276/download

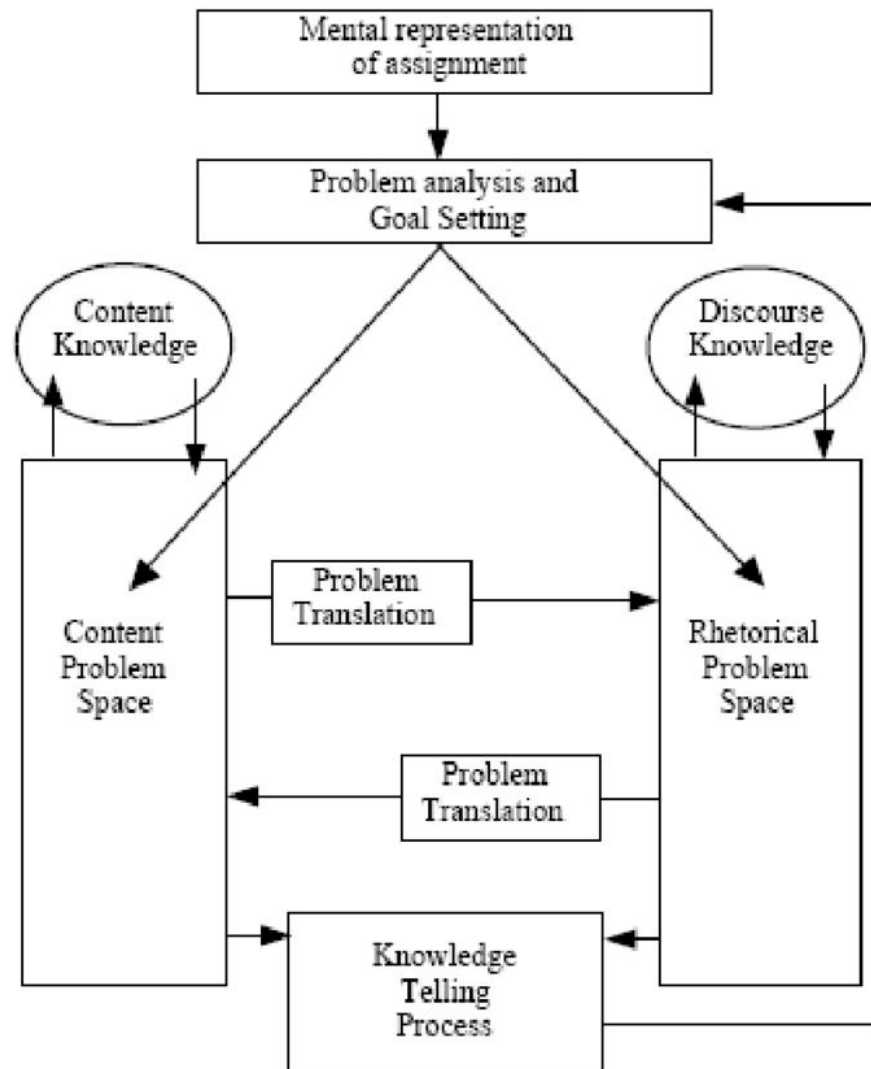


Figure 4: Bereiter & Scardamalia knowledge-transforming model, from Bereiter & Scardamalia (1987), p. 146, downloaded from https://www.researchgate.net/figure/Bereiter-Scardamalias-1987-knowledge-transforming-model-of-writing_fig1_253418546/download

**Appendix B: Composition-Learning Process Model - Zimmerman & Risemberg
(1997)**

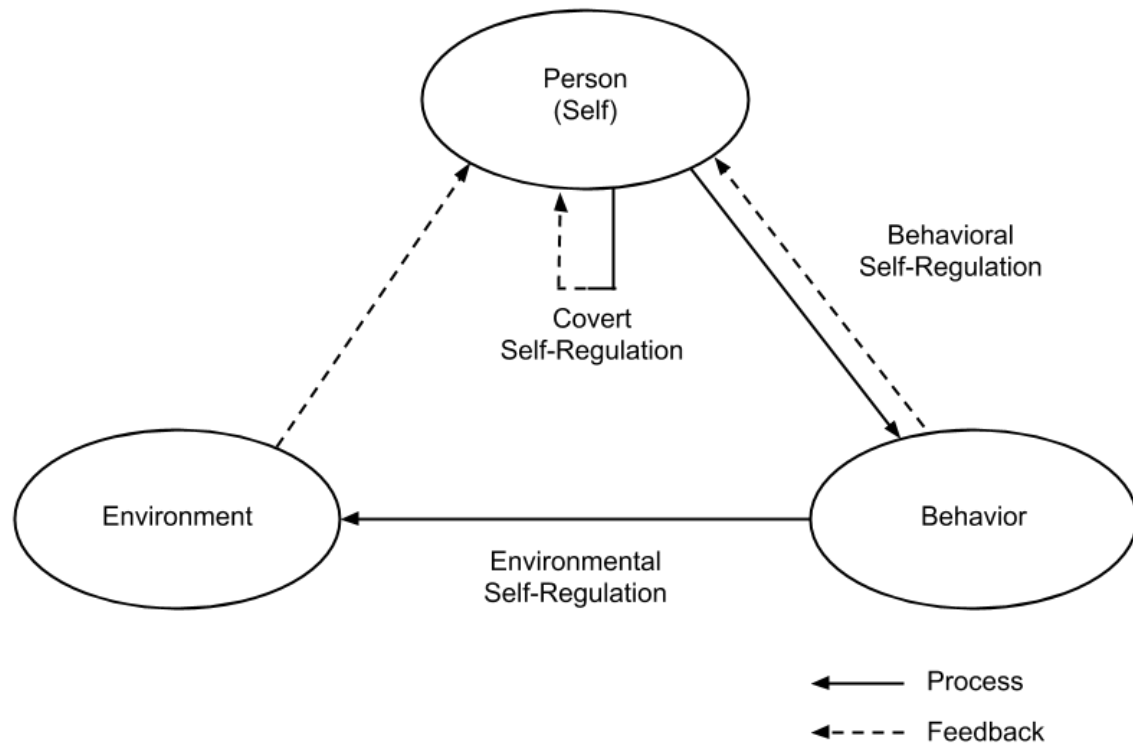


Figure 5: Zimmerman & Risemberg self-regulation model, copied visually from Zimmerman & Risemberg
(1997), p. 78

Appendix C: CBT Model of the Mind

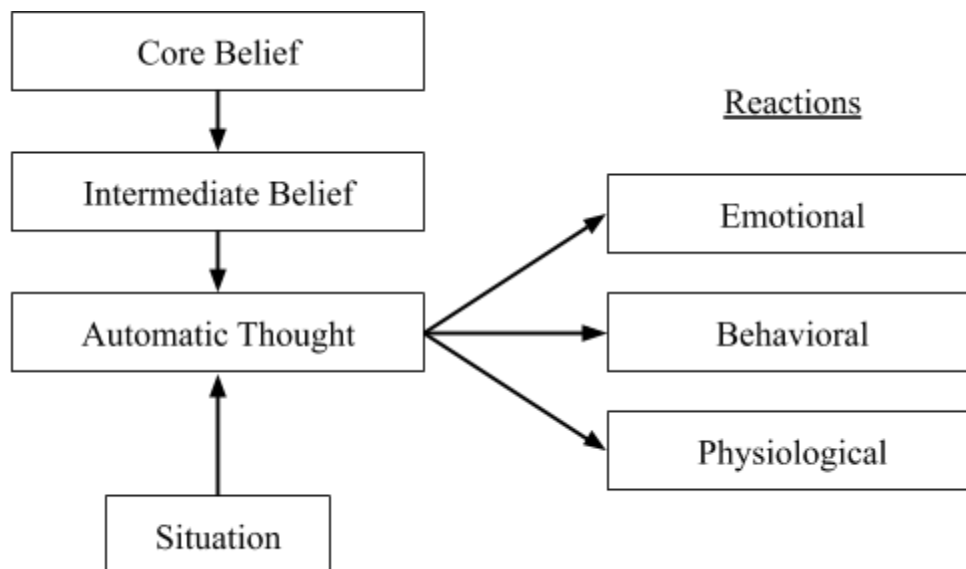


Figure 6: The cognitive model of the mind. Adapted visually from Beck, J., Cognitive Therapy: Basics and Beyond, p. 18

Appendix D: Building a model of the writing mind in comparison with CBT's model of the mind

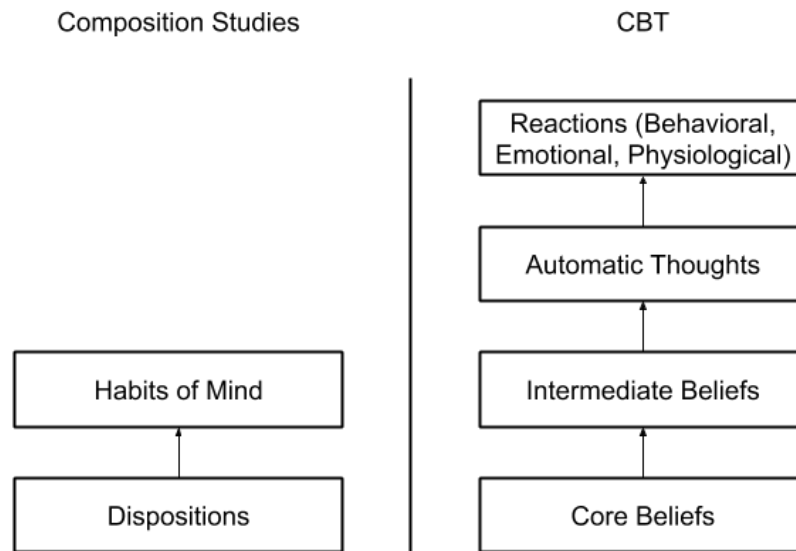


Figure 8: Comparing CBT's model of the mind to transfer literature's habits of mind and dispositions, as hierarchically arranged by Meade (2017)

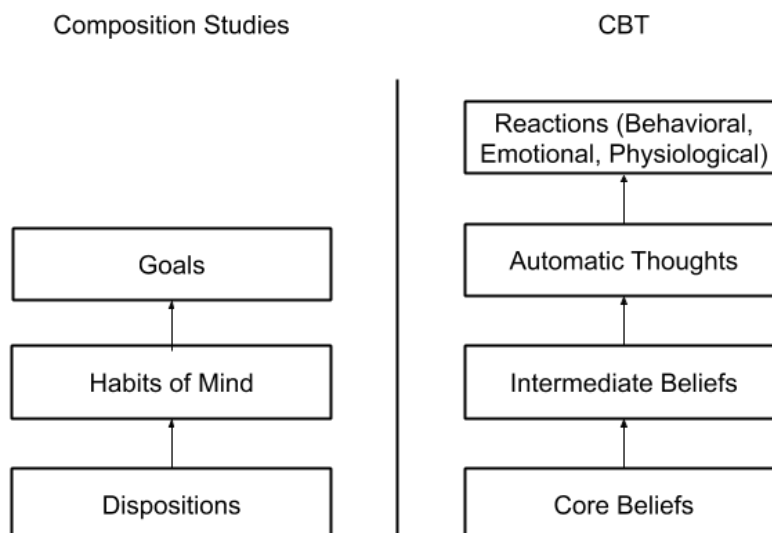


Figure 9: Adding goals (from composition process modelling) to the model of the writing mind

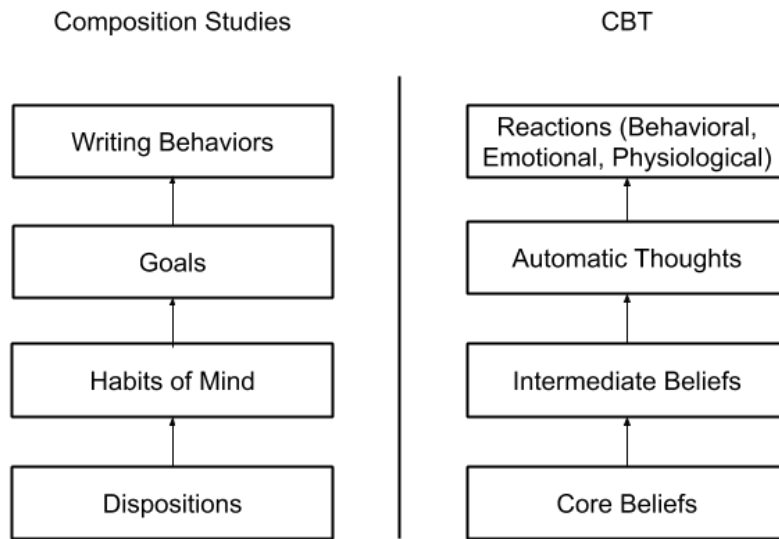


Figure 10: Full model of the writing mind alongside CBT's model of the mind (adding in writing behaviors)

Appendix E: Syllabus Frontmatter for "Writing and the Mind"

Writing and the Mind

In broad terms, this course investigates what happens in people's minds—including your own—when they write.

Research tells us that a writer's beliefs about writing—his dispositions, his habits of mind, his ideas about what writing *is* and how it works—influence how he goes about the writing process and the writing he produces. This raises some questions, questions that this course will investigate:

- What kinds of habits of mind, dispositions, or other cognitions affect how we go about the writing process?
- What are the relationships between these different kinds of writing-related cognitions?
- What kind of beliefs might be more helpful to a productive writing process, particularly in a college setting? Which might be less helpful?
- What have others, particularly scholars and other successful writers, thought about writing and how it operates? How have their conceptions of writing helped (and perhaps hindered) their writing success?
- What have *you*, in your writing experience, believed about writing, and how have those beliefs helped (or perhaps hindered) your writing success?
- What, at the end of the day, do you want to do about all this?

We will pursue two side-by-side methods of investigating these questions: first, by examining various theories about what writing is and how it works in order to see how these theories operate and whether they are useful; and second, by having each of you examine *your own* deeply held, writing-related beliefs to determine whether they are useful (and to change them if you find it necessary).

This course draws heavily on the principles and practices of Cognitive Behavioral Therapy to help you find a greater self-awareness about and control of your writing process. It is not about me telling you what or how to think about writing, but rather about you determining what you want to be doing as a college writer and what kinds of cognitive structures you want to adopt in order to be able to do those things. In other words, in this course, you will not only learn how to write. You will also *learn to learn* to write.

Grading Breakdown:

Short Writing Assignments (in response to readings):	20%
Reflective Assignments:	30%
Writing Project 1:	20%
Writing Project 2:	25%
Participation:	5%

Appendix F: Course Schedule for "Writing and the Mind"

Unit 1 - Theories of Composition

Week 1

Theory of Composition 1
Preliminary Essay (2 pages in response to ToC 1)

Week 2

Reflective Assignment 1: Identifying Unhelpful Writing Behaviors
CBT 101: Cognitive Structures
Short Reflective Assignment 2: Becoming Aware of Self-Generated Goals

Week 3

Theory of Composition 2
Short Writing Assignment: Response to ToC 2
Short Reflective Assignment 3: Articulating Self-Generated Goals

Week 4

INDIVIDUAL CONFERENCES: Articulating Self-Generated Goals

Week 5

Theory of Composition 3
Short Writing Assignment: Response to ToC 3

Week 6

CBT 201: Intermediate Beliefs
Short Reflective Assignment 4: Articulating Habits of Mind

Week 7

Reflective Assignment 5: Articulating Dispositions
INDIVIDUAL CONFERENCES: Relating Habits of Mind to Dispositions

Week 8

DUE - Writing Project 1: Examining and Playing Out Conceptions of Composition

Unit 2 - Theories of Reflection

Week 9

CBT 301: Changing Cognitive Structures (Writing "As If")
Short Reflective Assignment 6: Selecting a Disposition to Change
INDIVIDUAL CONFERENCES: Reviewing Plans to Change Dispositions

Week 10

Theory of Reflection 1
Short Writing Assignment: Response to ToR 1
Short Reflective Assignment 7: Report on Disposition Progress

Week 11

Theory of Reflection 2
Short Writing Assignment: Response to ToR 2
Short Reflective Assignment 8: Report on Disposition Progress

Week 12

Theory of Reflection 3
Short Writing Assignment: Response to ToR 3
Short Reflective Assignment 9: Report on Disposition Progress

Week 13

INDIVIDUAL CONFERENCES: Discussing Progress with Changing Dispositions

Week 14

Short Reflective Assignment 10: Plan for Improving Writing Process in Future Endeavors

Week 15

DUE - Writing Project 2: Unified Theory of Writing Process, Combining a Theory of Composition and with a Theory of Reflection

Appendix G: Weekly Assignments for Unit 1, "Theories of Composition"

Preliminary Essay

Due Week 1

After reading our first source, what do you think of the theory of composition it espouses? How accurately do you think it accounts for everything that happens in your writing process? Does this view accord with your own (even if you'd never put it into these same words)? Alternatively, are there things that happen while you write—things you do or think, or things that get in your way, or things that help you complete your writing—that you don't see in this theory of composition, either articulated or assumed?

In general, your task here is to say what you think of this theory of composition as it attempts to describe with your own writing process--not what you think the writing process should be in a broader sense. (1-2 pages)

Purpose of this assignment: to start you engaging with the kinds of theories of composition we will be working with this semester, and also to get you doing some introspection into your own writing process.

In addition to what the purpose of the assignment lays out, this preliminary essay will provide students with a fresh attempt at a writing process to reflect on for Reflective Assignment 1, rather than asking them to recall old writing processes and risk over-narrativizing what really happened.

Short Reflective Assignment 1: Establishing writing process difficulties

Due Week 2

How was the process of writing the preliminary essay? What aspects of the process did you find the most difficult? Are these the same things you usually find most difficult? In what ways were the difficulties of this writing process similar to or different from the difficulties you are used to? (~250 words)

This derives from the CBT first therapy session ideal of beginning by figuring out what is actually going on. Different students will have different degrees and kinds of writing difficulties, and this exercise is designed to begin the students on a path of individualizing the reflective substructure of the course to themselves.

Moreover, attaching the reflective assignment to a recent piece of writing, as opposed to asking them to recall how writing has been for them in the past, avoids relying on overly narrativized memories of prior knowledge and experience, and instead primes students towards the here-and-now methods of introspection found in CBT. In other words, it asks students to go down into their cognitions, rather than backwards into their memories, and

therefore does not obscure the fact that memories are, of course, present cognitions of past events.

Short Reflective Assignment 2) Becoming Aware of Self-Generated Goals

Due Week 2

When you sit down to write, what is it that you consider or feel yourself to be doing? This is not a question about what you *think* you should be doing when you write, or about what writing *is*, in some philosophical sense. Rather, you should examine, as honestly as you can, the kinds of goals you are actually trying to accomplish in the moment-to-moment experience of writing. This is an introspective exercise, in other words.

Lay out some of those kinds of moment-to-moment goals as best you can—and if the best you can do is lay them out very messily, then do that. You are not looking for the "correct" answer, here. I am asking, essentially, what kind of goal-related thoughts, feelings, and impulses are flying around in your head when you write. (~300 words)

This assignment would be preceded by an in-class lecture/discussion, and if necessary a short reading, concerning the principles of CBT and how they affect the course.

The assignment derives from one of the very first steps of the CBT process: educating the patient on the existence of automatic thoughts. Given that this introspective process is so conscious, the process must be brought to conscious attention at the outset. The preceding discussion about the principles of CBT and how they influence the course will only make the design of this assignment more explicit. Indeed, the written assignment is more of a followup to that discussion, and should begin moving students towards the step of articulating what their automatic thoughts actually are.

Short Reflective Assignment 3) Articulating Self-Generated Goals

Due Week 3

Assignment Option 1:

What writing behaviors, in your experience either in this course or elsewhere, have been helpful for getting your writing done well and/or more easily? What are some writing behaviors that have not been helpful?

Try to imagine yourself back in the moment of using one of these helpful or unhelpful behaviors. What was going through your mind when you went to use that practice? (~200 words)

Assignment Option 2:

After or in the middle of your next writing session, pause for a moment and reflect on the behaviors you are engaging in with your writing process. Are you focusing on a particular paragraph, or editing grammar, or sitting there wondering why words aren't coming to you? Whatever it is you are doing, take a moment and see if you can articulate what was going through your head while you were doing it. (~200 words)

This assignment mirrors the CBT movement from recognizing the existence of automatic thoughts to articulating what those thoughts actually are. At this point, students are not asked to actually do anything with the thoughts in question, but only to articulate them. Also, having them write these thoughts down in a short writing assignment, as opposed to simply talking about them in conferences (although this will likely happen, as well), ensures that the students have a written record of certain automatic thoughts to which they can return and which they can examine.

Short Reflective Assignment 4) Articulating Habits of Mind

Due Week 6

Revisit the self-generated goals you articulated in Reflective Assignment 3. Assuming those goals are good—i.e., based on accurate understandings of what you should be doing—what would that mean to you? What is the basis upon which you think you are deciding that those are the goals you should be pursuing? (~300 words)

Here, we begin to get into something derived very closely from one of CBT's most interesting methods, the "Downward arrow technique" (J. Beck 143). The technique in question, in CBT, essentially examines the nature of the relationships between different levels of cognition in the cognitive model of the mind. That is, it asks patients what a certain automatic thought might mean if it were true. The answer to that question would presumably be an intermediate belief; if an automatic thought is true, then it must be true for a reason. Within the patient's cognition, of course, that underlying reason would be expressed as an attitude, rule, or assumption—that is, as an intermediate belief.

Another way of getting at this particular technique within CBT is by remembering that, within the cognitive conceptualization that a therapist puts together with his patient, the patient's belief structure—going from core beliefs to intermediate beliefs to automatic thoughts—should, in fact, be valid, in the logical sense that the conclusions properly derive from its premises. In other words, the assumption of the cognitive model is that, if the patient's core beliefs are actually accurate, then the patient has good reason to believe the intermediate beliefs and automatic thoughts that follow.

What this means, of course, is that by asking the right questions—and making sure they are understood in the right way—it is possible to follow the logical chain backwards from

automatic thought to intermediate belief to core belief. It can be a messy process, but the chain of logic is, in fact, traceable.

What this exercise seeks to do, therefore, is to help students begin tracing that logical chain. To ask what an automatic thought "means" to a student is to ask why the person believes that automatic thought to be true or accurate. Simply to ask in those words, however—"Why do you believe this is true?"—might prompt interpretation rather than introspection. Phrasing it in more experiential terms—"What does this mean to you?"—is meant to guide the student more towards introspection.

Short Reflective Assignment 5) Articulating Dispositions

Due Week 7

Throughout this unit, we have investigated how different authors' conceptions of how composition works might belie deeper ideas about what writing is, at some basic level.

Building on what your reflective work last week, take it a step further (or deeper) and try to articulate the dispositions that seem to inform the habits of mind you articulated for Reflective Assignment 4. You might ask yourself something like this: if your habits of mind and self-generated goals are all accurate and appropriate, what might that mean about the nature of writing? In other words, what fundamental assumptions do you seem to be operating on when you enact your different habits of mind and writing goals?

Note: I am not asking you to guess at this, or to present an answer that seems to fit the evidence, as it were. This, like our previous assignments, is largely introspective. In other words, don't give me an answer just to have an answer. Your answer to this should *feel* right to you. (~250 words)

The purpose of this assignment should be fairly clear. Students, at this point, should be ready to make the somewhat difficult move of articulating those most fundamental statements about reality that undergird their writing-related cognitive structures—i.e., dispositions or core beliefs. Students here must work to avoid merely interpreting, in an abstract sense, the evidence of their cognitive structures. As the prompt notes, students' answers should not only make sense given their other cognitions, but also feel right to them. Because this can be a tricky task, this assignment comes in the same week as the last individual conferences of Unit 1, which will be focused on this Reflective Assignment.

Appendix H: Weekly Assignments for Unit 2, "Theories of Reflection"

Short Reflective Assignment 6) Selecting a new cognition to substitute for old ones

Due Week 9

Pick one of your dispositions concerning writing that you identified in the last unit, one that you want to change. Explain why you think that disposition is unhelpful to you, what might be a more helpful one, and why. (~250 words)

The purpose of this assignment is to put students in control of their own cognitive retooling for Unit 2. It would be easy for the instructor to guess--perhaps even accurately--what dispositions would be more helpful for the student to adopt, and there is no reason to withhold all advice from the student in this regard. However, as CBT therapists have realized in their practice—and as teachers in all disciplines know quite well—a student will better remember those conclusions to which he came himself.

Short Reflective Assignments 7, 8, and 9) Reports on Disposition Progress

Due Weeks 10, 11, 12 (respectively)

In your last writing assignment, how did your efforts fare with acting 'as if' your selected conception of the writing process? How much did you feel yourself operating on the old conception versus the new one? What did you think of the final product of your writing? Do you think it was made better for trying to operate on the new conception versus the old one? Worse? Hard to tell at this point? In general, how is the process of trying to shift your thinking going? (200-250 words)

Short Reflective Assignment 10) Plan for Improving Writing Process for Future Endeavors

Due Week 14

After a semester's worth of reflection on your beliefs about writing and the writing process, how do you think you want to go about the writing process in the future? This is really too broad of a question, as not every writing process will be the same, but what do you see yourself doing, in some general sense, the next time you need to sit down and complete a writing project for a course? (~250 words)

Appendix I: Major Writing Projects for "Writing and the Mind"

Writing Project 1 Examining and Playing Out Conceptions of Composition

Pick a writer from this unit and identify his or her conception of composition. Once you have figured out what you think this person believes composition *is* at a fundamental level, mull that over in your head for a few days, and then complete the following short writing task *while writing as if that person's conception of composition were true*:

Write a letter home (250-300 words) explaining something you have learned (in another class) here at college.

Once you have finished, reflect (in 750-1000 words) on the process of completing this task while operating upon the conception of composition you chose. Try to get at some of the following questions:

- Was it easy to write as if your chosen conception of writing were true? Was it hard?
- What kind of things did you end up doing (or thinking) while writing that you usually don't?
- Do you think this conception of composition helped improve your usual writing process? Did it hinder the process? Either way, how so?
- In general, how did the process of completing the short writing task go, and what do you think you've learned about your own writing process from the attempt?

The specific short writing task in this assignment may be switched out for something similarly simple.

Writing Project 2

Creating a Unified Theory of Writing

We have spent a lot of time this semester discussing different ideas about what writing is about, what it is, how it works, etc. All of these are, fundamentally, theories of writing. Your job is now to map out your own theory of writing—of what writing is and how it works (in 1750-2000 words).

You may well ask what it means to develop a theory. In the simplest of terms, a person develops a theory when he looks at a bunch of things happening in the world, considers those things for a while, and then says, "I think *this* is what's going on with all of that." Your job is to figure out what you think is going on with writing.

I want to see a final product that lays out a clear theory of how writing works, points out the influences that other theories have on your theory (as well as where your theory differs from those influences), and makes a case for why your particular theory of writing is better than other available ones. (Again, a "better" theory is typically one that more accurately and cohesively accounts for the ground level realities being theorized about.)

You may draw on any of our readings to help you construct your theory, and you may mix and match among those readings as you see fit. Your theory should account for both composition and reflection, *or*, if it does not, you should give good reason why you do not consider one or the other to be a fundamental part of writing and how it works. You are free to make whatever decisions you want in this regard, but make them well, and have reasons for making them.

Be advised: this is not an easy task. It is something you will want to start early, struggle with, come talk to me about, struggle with some more, and finally start to articulate. This will likely frustrate, confuse, and befuddle you as you work on it. In the end, however, you will have a much better idea of what *you* think about writing, at the most basic of levels. It will be a working foundation of knowledge that you will be able to use and build upon as you move forwards in college.