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The Value of Troublesome Knowledge: Transfer and Threshold Concepts in Writing and History

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Linda Adler-Kassner, John Majewski, and Damian Koshnick

Abstract: Using "threshold concepts" (Meyer and Land) as a lens, this article examines several issues related to learning within and across two general education courses—one in writing and one in history—in which students were concurrently enrolled. Analysis of data from students and instructors (of the history course) suggests threshold concepts that are shared among history and writing courses; however, the data also indicate that the extent to which these shared concepts are enacted through instruction is somewhat inconsistent. The article ultimately suggests that threshold concepts might prove a productive frame through which to consider questions related to writing and transfer, and also to general education more broadly.

In this article, we examine questions related to transfer across general education courses through lenses associated with "threshold concepts." Conceived as gateways to learning, threshold concepts are specific ideas within disciplines "without which the learner cannot progress" (Meyer and Land 1). David Perkins explains that these concepts are not simply ideas that learners need to grasp, but concepts that must serve as lenses for analysis within the epistemological context of a discipline (42). Through them, thinkers in the field approach questions, design studies to investigate those questions, and explain findings. An example of a threshold concept would be the idea of signification within cultural or media studies or that of opportunity cost in economics (Meyer and Land).

Our research is intended to contribute to two, heated conversations that currently seem to operate parallel to one another. One concerns the purpose of first-year writing courses, especially the ways that they facilitate students' abilities to transfer something—knowledge, strategies, habits of mind—to other courses and contexts beyond the academy. While this subject occasionally is taken up outside of composition, it is much more frequently (and intensively) discussed by researchers and teachers in the field. The second conversation, much larger, is taken up most often beyond first-year writing. This concerns the purpose and nature of general education (GE) in the modern-day academy and focuses on what GE does and how it does those things. This larger topic is implicit in discussions about everything from the purposes of two-year colleges, to dual-credit and concurrent enrollment, to the value of a four-year degree. Researchers have yet to consider the intersections between the discussion of first-year writing and GE. Our work is a first step in doing so; ultimately, we suggest that threshold concepts may provide a productive frame for faculty to productively engage with questions about the purposes of GE and to consider how to support students as they work to achieve these purposes.

This suggestion extends from research conducted in two GE courses in which a few students were concurrently enrolled. John, a faculty member in history, taught History 17b, an American history survey course. Linda, a faculty member in writing, taught Writing 2, UC Santa Barbara (UCSB)'s lower-division writing requirement. Using these linked sections as a base for this study, we sought to address several questions about learning related to threshold concepts: What threshold concepts were shared across History 17b and Writing 2? How were these understood by instructors in 17b and

enacted by students across both courses? To address these questions, we drew on three sets of data: survey responses from 17b students; a focus group discussion with 17b instructors (John as the lead instructor along with three of the course's nine TAs, all of whom led discussion sections for the course); and interviews with six of the twelve Writing 2 students concurrently enrolled in 17b.

Here, following a review of the threshold concepts literature and the concepts that we find to be shared among composition and history, we present two snapshots from our data. First, we examine how 17b instructors defined threshold concepts in that course and consider how (and whether) they addressed the concepts we believe to be shared. Then, we examine the ways in which students described their work with these shared threshold concepts by studying the transcripts of our extended interviews with them following the conclusion of both courses. We then consider the implications of instructor and student interviews for learning and transfer in general education programs. If one purpose of general education is to help students build a foundation for learning that can be used in multiple disciplines, a premise that is embedded (in multiple ways, as we discuss in the conclusion) within general education programs, these findings suggest new ways to think about facilitating "transfer" within these programs.

Transfer and Threshold Concepts

Jan Meyer and Ray Land, learning researchers who initially developed the idea of threshold concepts, identify a number of characteristics that are associated with them. For our purposes, two are critical. First, they are initially troublesome. As David Perkins explains, they can be "counter-intuitive, alien ... or incoherent" because they challenge existing beliefs, past practices or inert knowledge, or can be conceptually difficult. Threshold concepts also challenge the learner to reflect on tacit knowledge of which she is "only peripherally aware or entirely unconscious" (Perkins 40; see also Meyer and Land 9-14). This movement, though, is essential for learning development. It is the crux of the second critical characteristic, the idea that threshold concepts are liminal. That is, they are "portals" through which learners must pass. Borrowing from Victor Turner's work, Meyer and Land note that the movement through these liminal portals does not happen in a straight line but instead in iterative and recursive stages. In a preliminal stage, a learner's tacit views are interrupted as she is introduced to and begins to grapple with a threshold concept. In a liminal stage, the learner begins to enact that knowledge; at the same time, she becomes aware of her work with the concept and her interactions with it. In a postliminal stage the learner becomes transformed, "beginning to *think*" like a member of the field or area in which the concept is situated, participating in the concepts within the disciplinary/epistemic communities where they are situated. Here, the learner demonstrates discursive knowledge of the concept, applying it to analyses and questions in ways that both reflect fuller metacognitive awareness of her own processes and awareness of the epistemic processes of the disciplines where the threshold concepts are used (Meyer and Land, "Liminality" 23).

As learners move through these liminal stages, their knowledge also becomes less tacit and more explicit, discursive, and conscious, at least for a time—they not only know what they know, but they are also more likely to recognize how they know it. This development of metacognitive awareness is an important step toward "high road transfer" (Perkins and Solomon), which "depends on deliberate, mindful abstraction of skill or knowledge from one context for application to another" (qtd. in Reiff and Bawarshi 315). This research, then, also touches on the context that instructors created to foster the liminal and postliminal enactment of particular concepts and to witness different stages of liminality that are visible in students' discussions of writing.

Threshold Concepts in Writing and History

While composition as a discipline has yet to extensively engage with the literature on threshold concepts (Robertson is an exception), it is possible to identify a number of elements that could be considered "threshold" for student learning from recent composition research, especially work in genre studies and writing about writing. These include the idea that all writing is situated within genre and that genre itself constitutes a form of social action (Miller). From this perspective, genres are not just forms of writing. They are the mediating tools (Vygotsky) that bind academic and disciplinary communities. They reflect the values of those communities; at the same time, they shape, contribute to, and perpetuate the values associated with them, as well (Smart). In order to participate in these genres, writers must understand how writing, in this regard, represents more than just "words on a page"—writing is how individuals gain entry and membership in communities of discourse (Lave and Wenger; Soliday). Writers must thus develop an understanding of the roles of purpose, audience, and context in the formation, consumption, and perpetuation of genres and the conventions from which they are constituted.

First-year composition (FYC) courses informed by rhetorical genre studies (Bawarshi and Reiff) provide a glimpse of these ideas in practice. These courses are underscored by the position that if and when learners adopt the position that the study of writing involves consistent analysis of relationships between contexts, purposes, audiences, genres, and conventions and learn to conduct that analysis, they are both participating in the epistemological practices of the discipline and likely (so the theory goes) to be more adaptable writers. Since success as a writer is in part predicated on flexibility, these writers also will be more successful. Douglas Downs and Elizabeth Wardle, arguing for a writing about writing curriculum in FYC, argue that composition courses should "help students understand some activities related to written scholarly inquiry"—in other words, the epistemic work of compositionists—"by demonstrating the conversational and subjective nature of scholarly texts.... Students are taught that writing is conventional and context-specific rather than governed by universal rules" (559). In upper-division composition courses, especially those situated within the number of burgeoning writing majors and minors, these concepts are also positioned as central to the study of writing and contexts (see, for example, DelliCarpini and Zerbe or Giberson and Moriarty). Together, these texts suggest several interrelated threshold concepts such as genre, purpose, audience, and situated practice that are consistently invoked in the literature on and teaching of writing.

In history, meanwhile, researchers have also started to consider concepts critical for learning, studying how successful historians operate to consider the strategies that contribute to this success (e.g., Greene; Wineburg; Pace; Shopkow). Extrapolating from this work, it is clear that ideas about interrelationships between audiences, purposes, contexts, and genres are also considered threshold for learning in history. Historical thinking often stresses context. When reading documents produced in the past, historians immediately think about questions influenced by these ideas: Who produced the document? What were the goals and motivations of the writer? Who was the intended audience, and how did they interpret the document? Answering these questions allows the historian to produce a narrative about the past. As a result, historians attend carefully to matters of genre. To fully understand a primary source document, they must understand the relationships between a discourse community, the genre(s) it values, and the conventions of those genres. This includes understanding vocabulary and rhetorical devices in relation to the production, distribution, and value attributed to a text from the past.

Discourse, genre, and context are also crucial for understanding the construction of historical narratives as well as primary sources. How a historical narrative or story is communicated, received, and interpreted depends upon the expectations of the audience for the narrative, especially their expectations of conventions and standards. In most history courses, students are learning the standards

of clarity, evidence, and logic used by professional historians and beginning to apply these to the evaluation of historical narratives. A key point is that there is no single “right” narrative, in which all other reconstructions of the past are necessarily wrong. History consists of multiple competing narratives, which come about because historians are producing narratives for different discursive communities or because historians differ in their evaluation of evidence and arguments. Students encountering a college-level history course for the first time often find it difficult to understand that the textbook may not be the most persuasive or compelling narrative. How, they ask, can the assigned textbook be “wrong”? In the language of Meyer and Land, students typically find the threshold concept of multiple, competing historical narratives “counter-intuitive, alien ... or incoherent.”

Snapshot 1: Threshold Concepts and Transfer in History 17b

Before focusing on how History 17b instructors described their work with these threshold concepts, it’s useful to return for a moment to the broader general education (GE) framework in which these courses are situated at UCSB. We’ll provide a fuller discussion of characterizations of GE in the conclusion; for now, it’s important to note that the GE program is described as supporting two different things. First, the program says it is intended to foster habits of mind that extend *across* disciplines, a goal that spans disciplines and contexts. At the same time, it is described as providing an “orientation to ... intellectual disciplines” (UCSB), a goal focused *within* disciplinary contexts.

Within this broader framework of general education, these two courses in writing and history seem to share broadly similar threshold concepts. Both courses stress the centrality of audience, purpose, and context in the production of genres, and in the ways that those genres are used and interpreted by various audiences. These concepts, to be sure, are familiar in composition. But interviews with the 17b instructors revealed important inconsistencies in the definition and application of these concepts in that course. Sometimes, instructors described how they situated writing, reading, and analytic skills in the course explicitly within history as a discipline, indicating moments where they consciously enacted—and helped students to enact—an awareness of the distinct qualities associated with *this* context for learning and with the idea that GE should introduce students to *disciplinary* threshold concepts. Such enactment indicates the kind of meta-awareness that is embedded in threshold concepts in composition and history, since it is associated with situating text-making (and its attendant values) within a particular context.

At other times, though, instructors seemed to imply that they were teaching writing, reading, and analysis skills that were “universal,” reflecting the presumption that these skills were stable across all learning contexts. While this reflects the position that GE should introduce students to strategies that can be used across courses, it does so in a way that does *not* reflect these threshold concepts as they are enacted in composition – that is, in a way that acknowledges that they are defined within particular contexts shaped by specific audiences with specific purposes. This reflects a movement on the part of the instructors *away* from postliminal stages of these threshold concepts. Finally, at still other times, their comments indicated that their teaching was focused on specific course themes (how should we analyze U.S. history between 1820 and 1920) that were important for transmitting the content of the history course but not related to threshold concepts that are common across other history courses. Movement away from postliminal, conscious enactment of ideas associated with writing, reading, and analysis in specific contexts was especially pronounced among 17b instructors when it came to the issue of transfer to other general education courses. Instructors seemed content in transferring general skills that left students with only a tacit understanding of threshold concepts.

On one level, 17b instructors readily identified the threshold concepts of history and discussed their connections to the course. One of the TAs, Sam [\[1\]](#) [\[#note1\]](#), immediately identified having students construct their own historical narratives as a core goal of the course, which affirms the threshold

concept that history involves the construction of multiple (and sometimes competing) narratives. "One of the goals . . . which is one for every history class here," he said, "is for students to learn how to analyze historical documents and to use them via interpretation to marshal evidence to create arguments in their writing and thinking." Notice the discipline-wide nature of the core goal—it is for history 17b and all history courses, but not for learning in general education. John, as the primary lecturer, voiced a similar goal for the course, asserting that history consists of "arguments that give meaning to the past" (19).

The instructors and TAs recognized that this notion of history was new and troublesome for students, particularly for first-year students whose only experience in history was in high school. One TA noted that "in high school there was more just reading a textbook, a secondary source, and not actually trying to pull apart and understand the meanings themselves" (35). Here, the TAs dispelled the widespread notion that a textbook or secondary work necessarily presents the "right" narrative.

The ability to understand history as a constructed narrative was another threshold concept that also was evident. In 17b, instructors' discussed the writing, reading, and analytical skills that became essential elements of the course. Sam noted that he spent a great deal of time emphasizing that students had to connect quotations to arguments. But when this concept was put into practice, it represented a postliminal application in the content of the history course, and a preliminal one in the context of composition. Sam conveyed this point about writing to students, in part, through an email tip—students should not have long, unconnected quotes. Yet, at a deeper level, the writing advice reinforced the crucial importance of building an interpretative argument *in history*. He repeatedly told students "that quotations are raw evidence and that they can't just stand alone." Sam was letting students know that evidence could be interpreted in multiple ways—it was thus important to connect evidence to your argument, rather than let the evidence speak for itself (a favored practice of students who like using long block quotes). As Sam noted, "adding an interpretation [was crucial] and the students who did that well explained their specific point" (117).

The instructors also tied the teaching of the multiplicity of historical narratives—as well as the crucial element of context—to reading skills. Reading history requires students to separate detail from the essential elements of narrative and argument. Lucinda noted that working on such skills is important because "history reading can be a bit difficult because each paragraph is so packed." Accordingly, it is important to get students to consider "How do I think about putting a story together? How have these other historians thought about making their arguments?" The implication of Lucinda's argument is that historians read in a particular way. Students must be able to identify context, genre, and audience—an understanding of threshold concepts that we associate with postliminal enactments.

It is not surprising that the instructors had little difficulty identifying epistemic practices central to the work of historians. This "way of thinking and practicing," notes threshold concept researcher Peter Davies, is central as learners "associate themselves with a community of people who share that way of thinking and practicing and through this . . . position themselves in relation to others inside and outside a community" (70-71). Since these advanced graduate TAs were in the process of becoming accepted as part of the community of professional historians, their work with these concepts (perhaps not surprisingly) often represented postliminal stages of understanding.

Yet even as the instructors identified threshold concepts and tied them to teaching, at other times the threshold concepts became "lost" among specific course themes. This aspect of the 17b instructors' discussion of threshold concepts is particularly consequential when viewed from a perspective where GE courses are intended to introduce students to disciplinary practices. For instance, the idea that "history is the study of change over time" came up repeatedly in the focus group discussions. George returned to this point several times, noting that he focused his discussion section on "themes and

changes, particularly development of ideologies," so that students would make "specific connections in terms of change over time." At another point in the discussion, George linked change over time to the issue of inevitability. The key was for students "to identify key historical moments and not see it as kind of this inevitable thing that things happen in the way they do but understanding contingency in that type of thing. Sam also said that "change over time" was "the core of history as a discipline." He tied "change over time" to more fundamental threshold concepts: "It's not just the accumulation of dates, facts, ideas. But it's the link and seeing those changes." Even in Sam's rendering, though, there is a potential conceptual problem in that the emphasis on change over time and contingency privileges certain types of historical narratives. Some narratives do indeed stress change and contingency, but others do not. The degree of change and the degree of contingency in any historical period is open to debate. Indeed, the TAs praised one essay question that forced students to confront the degree of change in racial attitudes from 1820 to 1920. A student, presumably, could write an excellent analytical narrative emphasizing the relative lack of change despite the bravery and sacrifice of many people of color.

The TAs also mentioned several specific course themes—the development of domestic ideology, understanding the way that white southerners justified slavery, the agency of slaves and ex-slaves to influence politics—as core concepts. George exemplified this type of thinking, arguing that "it is absolutely essential to teach major themes and major developments in US History or any history class. That is essential information that citizens need ... as a civic duty you should learn history." Such justifications for teaching history are widespread, and, all things being equal, more knowledge about the past is a good thing for political leaders and voters. From the standpoint of threshold concepts, though, privileging "essential information" immediately raises the question of why some information is essential and some is not. Differing political ideologies are unlikely to agree on the "civic lessons" of history, and even instructors with exactly the same political attitudes might stress different themes (religious history vs. economic history, for example) as "essential" for civic understanding. Students obviously need information and facts (the Civil War began in 1861, for example) to write persuasive historical narratives, but elevating particular facts and particular narratives as "essential" calls into question the notion of competitive historical narratives. Here, again, the 17b instructors are engaged in a liminal understanding of their discipline's threshold concepts, but not necessarily a postliminal one.

The conflation of "historical agency" with core goals indicated a way in which disciplinary threshold concepts can become "lost" in a course. Here, getting students to understand specific course material threatened to overwhelm the explicit, discursive teaching of threshold concepts associated with history—and they intersected little, if at all, with the concepts shared among 17b and Writing 2.

The discussion became even more complex when 17b instructors took up questions about linking history to other disciplines—specifically, what should students transfer from history to other courses? On one hand, the instructors in History 17b sought to reinforce the uniqueness of historical thinking and writing in the context of the audience for historical work and the conventions expected by audiences for historical writing; on the other, they sought to generalize to audiences beyond. Sam tied the goals of 17b into the threshold concepts of writing different genres for different audiences. "Just getting students to understand how to both learn and perform for a variety of evaluators," Sam argued, was an important skill that "that is something that they'll have to do later in life working wherever they go" (80). Lucinda mentioned the example of a sociology student who turned in a paper that morally condemned slaveholders. The problem, she noted, was the writer's position did not constitute real historical analysis. Historical thinking, by implication, is much different than sociological thinking, which presumably has developed theoretical constructs that are more applicable across time and space where specific contexts are somewhat less important. In highlighting disciplinary boundaries—and hence the need to write differently depending on the discipline, this reflects

movement toward a postliminal understanding of threshold concepts as important ways of defining these boundaries. Lucinda, in effect, was asking the student to distinguish between historical analysis and sociological analysis.

Within a conceptualization of GE that focuses on learning key disciplinary concepts, 17b instructors identified threshold concepts essential for historical study and, by and large, demonstrated liminal and postliminal ways of enacting them in their teaching. But when their comments fell under the other thread running through UCSB's GE program, fostering habits of mind that extend across disciplines, their descriptions and enactments were less conscious and discursive, more associated with preliminal understandings of concepts shared across history and writing. For example, even though Lucinda conceived of a sharp distinction between sociological thinking and historical thinking, she also claimed that taking a history course generated universal benefits. "So for them not thinking...even if they don't really like being drawn to the discipline of history, maybe it is just not their forte, but maybe understanding it is a place where they are developing these skills that are really important also in the work place" (31). Certain skills, in other words, were of universal value, regardless of specific context and audience. Other TAs believed that the specific facts learned in History 17B would be more or less irrelevant to students—the real value of the course was the acquisition of general skills such as better reading comprehension, better writing skills, and better discussion skills. George took the skills approach a step further, arguing that learning general skills via "active learning exercises" is the core goal of the course: "Getting them to take active notes in class; read actively; constantly be thinking and putting those ideas to words in discussion section I think we can all, I think I speak for all of us, [that this is] a real goal as a tool that they can take and apply to future—critical thinking not just historical thinking" (16).

It is important to note that these general skills ("critical thinking") are rather vaguely defined—they are unmoored from the idea that each discipline will have its own audience, analytical framework, and evidentiary and writing conventions. Focusing on "general skills" in history courses parallels Anne Beaufort's analysis of the perception, held by many outside of composition and rhetoric (including students), that "writing is a generic skill, that, once learned, becomes a 'one size fits all' intellectual garb. This perception in turn leads to misappropriation of principles taught in [a composition course] in other contexts" and leads to "negative transfer of learning" (10). Beaufort continues, stressing that "no writing situation is without a social context.... [W]hat leaves students short-changed as they move into other course work and fields is that the particular discourse community (or communities) in which the teacher is situating himself or herself is not made explicit" (10). Students thus come to believe that writing skills are "general" and that what worked in one context would apply equally well to another (11).

The inconsistency in applying threshold concepts, it should be made clear, was not just an issue for the TAs. Although he has taught 17B more than a dozen times, John tended to teach threshold concepts (such as analyzing purpose and genre in *specific* contexts) in a tacit manner. The course certainly stressed the importance of contested narratives—the full title of the course, in fact, was "History 17b: Contested Visions of American Liberty, 1840-1920," and the syllabus promised students that "they will begin to think like historians." The course assignments—two paper assignments and an all-essay final exam—forced students to write analytical arguments using both primary and secondary sources. The lectures also gave students examples of how to use evidence and how to develop a clear thesis statement that directly answered the questions. As George noted, the lectures showed that the thesis is "an interpretative argument that lays out the topic, the roadmap of the paper, and its significance. And what I really liked about that is that it shows that it is not bad to throw out some ideas. Because that is a part of the learning process: you need to free write in order to understand what you are thinking and how you've digested the material throughout the class."

But despite the ways in which the course pointed to threshold concepts in history that were also relevant for learning across general education contexts, these concepts were only implied, not explicitly emphasized. The idea that students were writing for a *particular* genre and discipline was left unstated—it was assumed that the emphasis on argumentation, thesis, and evidence would enable students to understand how they might be applicable to other courses without clearly distinguishing historical thinking from other disciplines. It is not surprising, then, that 17b TAs did not relate how forms of writing in this course related to broader threshold concepts of genre and audience. In not asking what is unique about historical writing, the instructors missed the opportunity to relate *and* distinguish their discipline to others in the general education curriculum.

Not surprisingly, the lack of explicit instruction about how threshold concepts in history related to those in general education were apparent in the first set of data that we gathered—surveys from students in 17b asking questions about how they defined theses and evidence, what they knew about those things, and where they learned them. Since we administered the survey twice (in the second and eighth weeks of the ten-week quarter), we had hoped to see some small changes in responses—to borrow terms from Robertson, Taczak and Yancey, some reworking/remixing that might point to elements of what King Beach calls consequential transition (see Moore). But we were disappointed that even in the second set, most 17b students were still in distinctly preliminal stages with these questions, describing writing as a set of rules to be followed, rather than as an activity situated in and growing out of context. On one of the late surveys, for instance, a student wrote that the thesis “should be the last line in the intro, usually one sentence or two explaining the theme of your paper.” On another, one replied that “a thesis statement should be in your introductory paragraph and is usually a couple sentences in length. It should give a detailed or specific overview of what you will discuss in your paper.” Few of the responses reflected much in the way of threshold concepts, either those related to specifically history or those related to other disciplines. Regardless of discipline or audience, a thesis was a thesis—a sentence or two that “summarized your paper.” But situated within the data from the 17b instructor focus group, in some respects students’ lack of thinking about threshold concepts outside of history and about differences within disciplines was not surprising. While the instructional staff defined some of these concepts, they sometimes did so in preliminal ways themselves. Additionally, these concepts were somewhat inconsistently incorporated into their teaching. Lacking a context in which these concepts were introduced, emphasized, and reiterated, it was likely more familiar (and likely easier) for students to think about writing as a static activity rather than one that is situated in and shaped by purpose, audience, context, and genre.

Snapshot 2: Writing 2 Students and Threshold Concepts

Just as we sought to elicit history instructors’ definitions and understandings of threshold concepts by asking them to identify what they considered to be core to learning in 17b, we also wanted to hear from students enrolled in both courses about what they considered as core or threshold concepts in both courses. To do so, we conducted intensive text-based interviews with seven students concurrently enrolled in Writing 2 and History 17b. Although the focus group demonstrated differences between the ways that threshold concepts associated with history and writing were enacted in 17b, these interviews demonstrate the ways in which even an inconsistently shared emphasis on threshold concepts seemed to contribute to students’ work with these concepts. To illustrate, we focus here on three students who describe shifts in their thinking about the role of audience, purpose, and context in the production of written texts. These students provide glimpses of learners moving, in places, from a tacit to a discursive consciousness about these concepts and the complexities involved in putting them into practice.

The first of these students was Susan, a first-year student, who came from a small private high school in southern California. Discussing her writing experiences there, Susan described distinctly preliminal

ideas about key threshold concepts in composition: analysis of purposes, audiences, and genres in specific contexts. She said she was taught very specific ways to write: "We weren't allowed to use certain words...we could never use a 'not,' a 'never'...we could never use negative words, and...we couldn't really use 'is.'" Asked about what she learned in 17b and Writing 2, though, Susan's comments indicate a movement toward a postliminal version of these concepts. "The most important thing we learned," she said, "was that different disciplines have different conventions. I knew," she continued, "that obviously there were different expectations.... I knew that on a basic level, like that was more intuitive. But just in terms of citing, and that kind of thing, that really is very different, you know, that every teacher kind of varies." Susan's description of these ideas demonstrates her movement from tacit – "intuitive," as she puts it—to discursive learning. In the frame provided by threshold concepts, this is significant because it indicates a more explicit, conscious enactment of these concepts.

As she continued, Susan described additional evidence attesting to this movement, especially in conjunction with the last project of the term. This was one that she identified as particularly significant for her, and which she chose to discuss in some greater detail. Briefly, the assignment asked students to take a primary source from History 17b and create a secondary source targeted to a particular audience and purpose from the primary source. Then, students were to analyze their document, addressing how it reflected particular purposes of history, and why those purposes were significant for the audience for the genre that they created.

When she started the assignment, Susan said she found it especially challenging because it asked her to move outside of expected conventions. She decided to write an op-ed piece based on a 1902 pamphlet published by the American Federation of Labor, *Some Reasons for Chinese Exclusion: Meat Versus Rice*. Once she got the idea, she said, "it took me some time because I wasn't sure how to write an op-ed piece." As she described her work with the project, Susan talked about how she enacted key elements of the threshold concepts shared across Writing 2 and History 17b. She carefully analyzed the context surrounding the production of her primary source, the 1902 pamphlet, and the op-ed piece that she wanted to write for a contemporary newspaper. She also carefully considered the purpose and audience for both of these pieces and consciously addressed them in her thinking and her writing. Susan said,

First I went to the document and wanted to figure out what was important and what wasn't important.... I found parallels with that with the current Arizona immigration laws and I wanted to draw similarities. So I read through the 1901 document and I went through and I was trying to pick out where were the overtly racist tendencies, undertones, all of that, and I wanted to draw parallels. So I went through that and I found those and I pulled those.

Then, she described the process of using this information for an op-ed piece: "I wasn't sure how to write an op-ed piece and ... it took me a little bit of time to figure out what I wanted to say.... I wrote an initial draft, and met with you, and I went to the library and looked through newspapers."

Susan then used this analysis of both genre and purpose to begin to develop ideas. Then, describing the process that she used to begin assembling her ideas, Susan also began to talk about the ways in which she considered issues of audience:

So with me, before I write – even if it's a person that doesn't know what I'm talking about, even if it's my roommate or something, I even just have to bounce it off of her and say it and explain it because it's really more for myself than it is my audience, but that's just a technique that I use and find helpful, so in writing that was kind of the first thing that I did.

In these excerpts, Susan is describing a very sophisticated, postliminal enactment of the threshold concepts associated with learning in both of these courses. She's carefully considering the choices that she is making among content, genre, purpose, and audience, and thinking hard about the contexts in which all of the documents she's analyzing and producing circulate. This is also clear in her response to a question about a significant moment—paragraph, chunk, idea – from a writing project in the term. She chose a section of that same project, saying that:

The last paragraph of the op-ed piece that I wrote was most significant for me, because that's where I got to my main point. Throughout the essay I've talked about the main point, but I think I say it most relatably in the end, because I talk about why....

You know, I think in a lot of history classes we always talk about what is the point of learning history—at the beginning of every history class the teacher always asks, "What's the purpose of writing history, or learning about history?" And here, I say that the reason that I wrote this is to show that we have this pattern of perpetuating racism. And in History 17b, one of the final questions was basically talking about the legacy of white supremacy. That was more or less the question. ... But that was what we were talking about. And it's sort of the same thing that I wrote about in my op-ed piece to say that this is happening too, and it's happened before, and it's still happening today.

Susan's description of her project points to postliminal conscious enactment of the threshold concepts shared across History 17b and Writing 2. She is making explicit, conscious choices in the development of her genres based on her analyses of multiple purposes, audiences, and context for her work.

At the same time, though, some elements of Susan's discussion of her writing process showed how she was sometimes on the edge of movement between these concepts and sometimes even retreated from conscious enactment of them. For example, Susan's description of the process that she uses for writing shows her posed on an edge between preliminal and liminal enactment of threshold concepts associated with the specific analysis of purposes, audiences, and contexts for writing. She begins by describing a very generic process that displays all of the elements of "general skills writing"—the idea of working toward a generic text populated by elements that writers consider to be free-floating and not associated with contexts. She said:

I like to pick out all the quotes I'm going to use for a paper, and I sort of outline my paper with the quotes. So let's say I have 2 quotes per paragraph, a quote per paragraph... I take the quotes and I put them in chronological order of the paper, and then I sort of... not necessarily summarize, but just to have something out there—any thoughts that I have I sort of think why did I choose this quote, and I'll sort of take notes underneath each quote. And then that sort of forms into a paragraph because that is essentially a paragraph.

But then, she pivots toward a liminal enactment of these concepts, saying that

I take that, and after I do that I go back and forth. So I wrote the first draft... and that wasn't enough like an op-ed piece... And you know we redid it and I got – I understood more of the conventions of writing an op-ed piece. And then went back and revised according to those conventions. But I still used the same information, I just sort of rearranged things.

Stopping, rereading, and consciously considering the fact that she *is* creating a specific genre with specific conventions, Susan demonstrates the kind of explicit and discursive knowledge associated

with conscious enactment of threshold concepts. But then, she retreats from that later in the interview, describing what she took from the course about revision. She said that "time to write" was important - but despite her extensive discussion of revision associated with the op-ed piece, she said that revision was important "specifically in terms of grammatical stuff. I was overusing commas, I definitely in my writing do that less. I try to be more concise with my evidence. I had a tendency to not complete my analysis." Her concluding analysis about the value of revision was more closely aligned with "general skills writing," than it was with those other, more integrative revisions she clearly made in association with her revised appreciation of context and genre.

Taken as a whole, Susan's comments show how a learner moves toward and through liminal states associated with threshold concepts—yet, even in the process, occasionally retreats from them. Comments from the second student here, Roxanne, illustrate a learner whose sense of herself as a contributor shifted through her encounters with threshold concepts. Before Writing 2 and 17b, Roxanne also had experienced writing as a rigid set of rules. "I always thought ... writing was always so formatted," she said. She was also told in high school, "don't quote directly. Paraphrase.... don't use [quotations] at all."

But as Roxanne discussed her work in Writing 2 and 17b, an appreciation of the context-specific nature of genres emerged in bits and pieces throughout the interview. One instance was in her discussion of how the focus (or theses) of pieces of writing were identified. "Going back to before I got to Writing 2, I thought—I was always taught that a thesis is one sentence. And that one sentence has to say everything you're going to talk about in the whole essay." (It is worth noting that this belief was echoed in the vast majority of the surveys that we collected from students in 17b about how they defined theses and practices of evidence use, as well.) Following Writing 2, though, Roxanne said she learned that the nature and location of thesis depended on the context for writing. "This was important to me," she said. "It opens the door for me to be able to write more than one sentence" and she noted as a result, "I'm explaining my thesis more – it's not just one formatting thing. It can change, and it doesn't have to be the same."

Roxanne extended this realization to other elements associated with writing: "There are so many ways of writing," she explained. She pointed to the second assignment in Writing 2 as an example. There, students were asked to identify what were seen as "appropriate literacy practices" in History 17b by analyzing documents from the course, interviewing instructors, and conducting observations. Then, they took this analysis of appropriate practices and applied it to the first essay that they wrote in 17b, discussing where they saw (and did not see) those practices in their work for the course. "That paper...that was just so different. I'd never done anything like that." Through the essay, she described being able to understand writing as an activity that involves the work of a writer in context, frequently in communication with other writers. This assignment, she said, made her "feel like a writer." When asked how, she said that "critiquing a paper, even though it was mine.... I felt like writers do that. They look at other peoples' writing and they learn from it. And even though it was my paper, I was able to learn from that to write [her paper for 17b]." Interestingly, Roxanne reported, here, imitating what she "felt" like other writers do. This activity seemed to represent a revised identity of herself as a writer, doing what she felt like writers do -- writers, she says she realized, learn from reading others' writing. Clearly, for her, this new perspective was exhilarating, for, as she reported, she had never done anything like it before; through that doing, Roxanne was learning not just about writing and genre expectations, but about the relationships that writers might play in relation to those expectations. This intersection of liminal and postliminal participation in threshold concepts, especially as it reflects the development of conscious, discursive metacognitive work on the part of the learner, is critical. Anastasia Efklides has shown that when this combination of postliminal development and specific application is achieved, it can have a profound effect on a learner's perception of herself, that "[w]hat is task specific can become part of the person's dispositional

characteristics and have long-term effects on students' willingness to learn and to regulate their learning" (65). This question of affect and self-efficacy, while not explicitly addressed in general education or transfer research, runs throughout both.

Kristofer's discussion demonstrated a more stable, but also perhaps more liminal, instantiation of threshold concepts. Describing his ideas about writing before taking these classes, Kristofer also discussed very narrow conceptions of what should be included in an essay. "It was like introductions, and at the bottom of my introductions my thesis statement, and within the introduction I would structure my paper and then start paragraph one, paragraph two, paragraph three, concluding paragraph. I was very structured."

But after Writing 2, he said, "I guess I broke down that mold and wrote how I thought the paper should be structured based on the question. Based on the class and the question." Throughout the interview, Kristofer continued to emphasize this relationship, saying that he found the second writing project in Writing 2 valuable because it helped him to more closely analyze the requirements in 17b and to tailor his writing to the assignment. "Using the evidence," he said, "was the main focus in history... and properly introducing it with our sentence that introduces the quote, and how it was relevant, and analyzing the quote. Definitely structure and citation [were the] main focus in history." He also discussed how he applied this thinking to his writing in 17b. "Before I took [Writing 2]," he said, "it was more just trying to write a page to get a page. Now it's read the question, understand the question before I even start to write. Maybe draw up a little outline, and then write the paper."

At first glance, the relationship that Kristofer identified between writing ("the paper") and context ("the class and the question") here seemed to point to a sophisticated enactment of threshold concepts, as he clearly considered relationships among each. But this careful attention to the requirements of form and format also seemed to demonstrate mimicry associated with liminal instantiations of these concepts. Postliminal stages would also represent evidence that Kristofer was "think[ing]" like a member of the discipline in which he was writing—in this case, history (Meyer and Land, "Threshold" 23). This is distinct from, but related to, the act of using conventions of writing (and thinking) within the discipline, which certainly represent the values embraced by its participants.

This kind of movement among the writing *and* epistemological conventions associated with a discipline can be located in a portion of Acelia's interview. Unlike other students, Acelia did not bring the same rigid conception of writing to her work in these courses. She said that in her private high school, she learned to "form writing to the appropriate situation that's required." She said that she had taken a variety of classes [that] had different writing styles," and felt comfortable moving among these styles. Although Acelia's comment could suggest that she simply "applied" those styles to assignments in college, as Kristofer's responses suggested he was learning to do as a result of taking History 17b and Writing 2, Acelia also described the ability to articulate a relationship among conventions of writing *and* thinking by analyzing the way writing functioned in 17b. This was evident in her description of the second assignment, the one that asked students to identify appropriate literacy practices in 17b and then analyze their own papers for the class through that identification. "I remember when we first got the prompt and I was really overwhelmed (laughs)." But then, she said, she approached the challenge of the assignment with more direct and conscious intent:

The first step I took was going through lecture notes and just seeing a trend.... And I just paid a lot of attention in class. And then I started to notice like, every lecture [Professor Majewski] really outlines like it's an essay. He forms a thesis, he has an argument, and that's how he wants us to write. And he includes examples so his lectures were like a great example of how I should go about my thinking about analyzing literacy practices for History 17B. And then I looked at my essay [written for History 17B, and which she

was analyzing for the writing project in Writing 2] and I looked at how my essay compared with how he would structure a lecture, [and] in my head I was thinking, 'Can I make a lecture out of my essay?' ... And then I went through and compared what I did... in comparison to him.

Acelia's description of this process points to a very agile moment of postliminal work. She is carefully considering purpose, audience, and context in 17b, then thinking about its relationship to genre—not just the written genre of the history essay, but of the genre of the lectures that John delivered in class each day. She then applied this analysis to the writing that she completed for history, thinking of those essays as larger versions of the lectures in the course.

Conclusion: Threshold Concepts, FYC, and General Education

These snapshots point to the importance of identifying threshold concepts and the importance of troublesome knowledge in those threshold concepts -- for both students and instructors. Interviews with Writing 2 students show them oscillating among stages surrounding concepts shared among Writing 2 and History 17b, often embracing new ways of thinking about writing and themselves as writers while not quite discarding more familiar and comfortable ways of thinking about both the content and approach to writing more generally. At the same time, interviews with 17b instructors exposed an important tension. Instructors comfortably identified concepts associated with the study of history, but they frequently missed opportunities to connect important elements associated with historical narratives to the threshold concepts in composition. The instructors too often relied on safe and easy conceptions of "general skills" when articulating core goals, thus obscuring the more fundamental point that historical narratives are arguments constructed within specific contexts, using particular genres, conventions, and standards that are closely linked to different purposes, audiences, and contexts. These preliminal moments seem to represent reversions to tacit knowledge that Meyer and Land, along with Perkins, describe. In parallel fashion, students sometimes backed away from postliminal enactments of these concepts, especially when they discussed rules or strategies that might apply to all writing.

The question that these snapshots of instructor and students raise, then, is how instructors can more readily foster transfer between contexts where these concepts are shared, such as the history and writing courses studied here. Both students and instructors sometimes acknowledged that the ways in which texts were constructed—whether assignments being produced for Writing 2 or History 17b, or historical texts—was and/or needed to be integrally related to context, purpose, and audience. Enactment of this perspective—through the creation of lessons (by instructors) that fostered students' ability to situate texts in context or encourage students to create texts for particular audiences—reflected the threshold concepts shared among both courses. Such enactments consciously took into account *particular and identifiable* purposes and audiences and demonstrated postliminal participation in threshold concepts.

These findings send us back to the implications for General Education. Student and instructor interviews suggest that threshold concepts that accrue *across* learning contexts, such as those in History 17b and Writing 2, need to be reinforced even more strongly in multiple classroom settings by students *and* instructors. The troublesome knowledge inherent in these concepts means that students need to engage in frequent practice with them across courses, rather than focusing on them in discrete instances. The ultimate goal of General Education courses, then, might be reconsidered to focus on identifying, comprehending, and applying multiple threshold concepts across the curriculum.

The problem with this assertion, though, is that it presumes a particular orientation toward general education itself that is neither necessarily explicit, nor widely shared. As historians of general

education have noted, identifying shared goals within general education programs has been a long-term challenge for American postsecondary institutions. Since the late nineteenth century, these programs have been attempts to find common ground, intellectual compromise amidst two competing views of the purpose of postsecondary education. In one, university study is intended to educate specialists with particular kinds of knowledge who would then grow to become part of the knowledge community. In the other, the purpose of college is to prepare students to make contributions to their broader cultures—their communities, their cities, their nation—albeit from a highly educated perspective (e.g., Bender; Menand).

Amidst these competing visions of what university study was *for*, then, general education emerged as an attempt to create a sort of compromise ground, “an academic community where students and faculty shared a common language and, in many cases, a common set of values” (Russell 25). The problem, though, is that this vision has rarely been successfully realized. Louis Menand, for instance, describes the development of two basic approaches to general education. The most common—and, as we’ve mentioned, the one that is mostly (though not entirely) in place at UCSB—is a distribution system where students are required to take courses from the major divisions within the liberal arts (social science, natural science, arts, and humanities). Here, “[l]iberal education is ... a background mentality, a way of thinking, a kind of intellectual DNA that informs work in every specialized area of inquiry” (Menand 28).

The distribution system, then, is aligned with the idea that postsecondary education is intended to prepare students for purposes larger than simply specialization and participation in the work of a community of scholars and researchers. The alternative to the distribution approach is the “core,” where all students are required to take specific courses that impart specific knowledge, such as a great books seminar. Here, the presumption is that there is particular *knowledge*, not just particular habits and attitudes, that students must know.

The general education program at our own institution reflects a somewhat uneasy compromise between these two approaches, and this compromise reveals the problems – and potential—that a focus on threshold concepts within general education might hold. As mentioned earlier, UCSB’s GE program says that it provides “the common intellectual experience of all UCSB students, whatever their majors,” and that in it students “receive orientation to a broad range of intellectual disciplines,” including “the kinds of questions that are addressed, the methods for solving problems, and the strategies for communicating findings and conclusions” (UCSB). The first portion of this introduction, then, reflects elements of a core model, providing exposure to core knowledge within disciplines and the epistemological practices of those disciplines. The introduction then shifts to language more closely linked to a distribution model, explaining that the general education program is designed to “encourage intellectual curiosity,” as well as to “acquire university-level skills in writing, critical thinking, and quantitative analysis, and foreign languages” (UCSB).

At UC Santa Barbara, these somewhat competing goals are to be achieved when students fulfill the general education requirement by taking a total of somewhere around 22 courses from among seven “Subject Area Requirements,” most of which (save one, “English Reading and Composition”) include anywhere between 40 and over 100 courses and five additional “Special Subject Area” requirements, each of which also includes between 30-80 possible courses. (Students can be exempted from some requirements based on things like AP scores, high school coursework, or ACT or SAT scores.) UCSB’s program, then, provides students with a dizzying array of choices. To complicate matters even further, many courses fulfill multiple requirements -- for example, a course can fulfill requirements in Culture and Thought (Area E of the Subject Area Requirements) and the Special Subject area requirements in both Writing (which is separate from English Reading and Composition) and World Cultures. Additionally, it can be a prerequisite for the major in whatever department offers

the course. Finally, because of the nature of our institution, there might be 200 students (or more) in the course.

But we do not think that UCSB is alone in offering a general education whose purposes are neither necessarily cleanly aligned, explicitly laid out by the instructors teaching the courses, nor implicitly or explicitly understood by the students enrolled in the course. In fact, outside of composition courses, our experiences teaching in and/or consulting with a number of colleges and universities around the country suggests that this is the rule, rather than the exception. Defining what a general education should do requires an enormous effort to build consensus among faculty from across an institution. Faculty necessarily and by definition work within the professional standards of *their* disciplines, having worked long and hard to master their field's threshold concepts, enact those concepts, and sometimes contribute to the development and dissemination of new concepts extending to new knowledge.

It is within *this* broader context, then, that we think the idea of focusing on threshold concepts within and across general education courses holds particular potential as a new perspective on considering the purposes and practices of general education courses. Working from this perspective enables us to consider, as we have done here, whether there are concepts that exist within specific disciplines, like composition and history, that then can also span *across* disciplines. This perspective positions these concepts not as all-purpose habits that exist within liberal learning, as in the distribution model, but as discipline-specific concepts that operate within some number (two, in our case) different contexts. When these areas of shared concepts can be identified, it might then be possible for instructors to explicitly articulate the concepts for themselves (as, for example, faculty working in the History Learning Project at Indiana University have done; see Pace and Middendorf) and work them explicitly into their teaching, perhaps in courses linked like History 17b and Writing 2, or perhaps in other instructional configurations. Then, working together, instructors can help students to explicitly, consciously enact these shared threshold concepts, facilitating more effective transfer across both.

Notes

1. The names of all TAs and students here are pseudonyms. However, "John" refers to John Majewski. ([Return to text.](#)) [#note1-ref]

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