

## CHAPTER 2

# THRESHOLD CONCEPTS: INTEGRATING AND APPLYING INFORMATION LITERACY AND WRITING INSTRUCTION

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Originally approved in 2000, the Association of College and Research Libraries (ACRL) *Information Literacy Standards for Higher Education (IL Standards)* have been adopted by libraries in higher education as the basis of instructional programs and for collaboration between librarians and instructional faculty for student learning. In particular, librarians and writing faculty have collaborated in what can be seen as natural partnerships due to mutual interest to develop student research skills. The *IL Standards* have also been recognized by regional accreditation agencies and serve as a foundation for many Southern Association of Colleges and Schools (SACS)-accredited Quality Enhancement Plans (QEP), a plan each member school must develop and submit as part of the reaccreditation process. In 2012, the ACRL Board of Directors initiated the process to review and revise the *IL Standards* with the formation of a task force, resulting in the evolution away from standards towards a framework. The *Framework for Information Literacy for Higher Education (Framework for IL)* is based on a cluster of interconnected concepts intended to provide a skeleton for flexible implementation based on local context. Conceptually, the *Framework for IL* is grounded in current learning theory which stresses threshold concepts and metaliteracy as a way to enhance skills and knowledge transfer. As a result, the *Framework for IL* presents librarians, instructional faculty, and administrators with challenges to rethink how IL has been taught and assessed at their institutions and what it means more broadly for accreditation.

For those of us in Writing Studies, the *Framework for IL* provides an exigence to consider our pedagogical and assessment practices within a changing information landscape and a shifting higher education landscape. An understanding of the *Framework for IL* and the concepts it is based upon, is, therefore, called for within the context of the seminal documents grounding writing programs:

The Writing Program Administrators' (WPA) *Outcomes Statement for First Year Composition* (WPA OS) and the *Framework for Success in Postsecondary Writing*.

## WHAT'S A THRESHOLD CONCEPT?

The *Framework for IL* establishes six frames, each with a designated threshold concept. In addition, recent research and scholarship in Writing Studies has focused on threshold concepts within the context of transfer. What, though, is a threshold concept?

In the early years of this century, British researchers Jan Meyer and Ray Land (2006) proposed the idea of threshold concepts. Conceived as a way to understand why some students “get stuck” and have trouble negotiating concepts, threshold concepts represent a transformed way of viewing or understanding something. This transformed understanding is required for a learner to progress and may be seen as the way individuals think and practice within a disciplinary (or other) community. Meyer and Land talk about a threshold concept as a “conceptual gateway” or “portal” which a learner progresses through as they learn and integrate the concept and are transformed by it. Importantly, threshold concepts are not the same as core concepts. A threshold concept represents “seeing things in a new way.” When accepted by the individual, threshold concepts may lead to an individual adopting a new way to see the world and/or changes the way s/he may think about their own and others' choices. Core concepts are building blocks on which learning progresses but that do not lead to a different view of the subject or to transformation in perspective. While threshold concepts will be unique to each discipline, it is possible to identify the properties of a threshold concept. According to Meyer and Land (2006a; 2006b), features of threshold concepts are that they are:

- **Transformative:** once understood, a threshold concept represents a significant shift in the way an individual perceives a subject. The shift may be affective, as in a shift in identity, or it may be performance-related in the way that an individual behaves.
- **Troublesome:** a threshold concept may be seen as troublesome for a couple of reasons. One, moving through a portal to a new way of thinking results in letting go of the old way of thinking, something that students may find difficult to do. In addition, threshold concepts may constitute or lead to the acquisition of troublesome knowledge that is conceptually difficult to understand, is “alien” or from a perspective that conflicts with the one currently held, or is complex and seemingly inconsistent or counter-intuitive. Threshold concepts

may also be troublesome due to “troublesome language”; that is, while disciplinary discourse practices may facilitate communication between members of a discipline, the language may make familiar concepts seemingly foreign and conceptually difficult to understand.

- **Irreversible:** once an individual has understood and adapted the transformation, it cannot be reversed without considerable effort. An individual may feel loss initially at leaving the old perspective or understanding behind.
- **Integrative:** once acquired, a threshold concept reveals interrelatedness between concepts or ideas in ways that were previously hidden or unclear.
- **Bounded:** threshold concepts have boundaries, bordering with threshold concepts from other areas. These boundaries may represent the divisions between disciplines.
- **Discursive:** the transformation brought about by the acquisition of threshold concepts results in new and empowering forms of expression for the learner.
- **Reconstitutive:** Discursive practices distinguish disciplinary thinking. A learner’s identity within a discipline is interrelated to their thinking and use of language.
- **Liminal:** Learners pass through a liminal stage when acquiring a threshold concept during which there is uncertainty as the individual leaves the old ways behind and passes through the portal to the new. This liminal stage can be viewed in the same light as a “rite of passage” in which there is a change in status and the learner has been transformed—acquired their new identity and “thinks” and “practices” in their new identity (i.e., “thinks like a rhetorician”).

What is important to understand is that since a threshold concept transforms a learner, that concept becomes a part of an individual’s thought process about a subject. It requires a shift in worldview and can be quite difficult. It also often feels as though one has gone through a passage; hence, the gateway or portal metaphor.

## THRESHOLD CONCEPTS AND WRITING

To this point there have only been a handful of Writing Studies researchers that have addressed threshold concepts and how they may be used to help in writing instruction. Most notably they are Linda Adler-Kassner, Elizabeth Wardle, and Irene Clark.

Researchers have suggested certain traits of threshold concepts as important. Linda Adler-Kassner, John Majewski, and Damian Koshick (2012) tend to focus on the traits of “troublesome” and “liminality.” Based on a study of linked first-year writing and history classes, they point out that these traits can be useful in helping students understand the writing concepts of genre, discourse community, audience, purpose and context. They look at the threshold concepts the students face in each course as “snapshots.” Irene Clark and Andrea Hernandez (2012) focus on the same traits but also include “transformative,” while they suggest writing instructors should think about “genre awareness” rather than “teaching genre.” By analyzing survey data and student reflections, they suggest that students are taught and learn about genres in a defined context and are not able to transfer that knowledge. They suggest students would be more likely to transfer genre skills if the focus was on the context rather than the surface features.

In addition, scholars have connected threshold concepts to transfer. Adler-Kassner et al. (2012) explore threshold concepts as a frame to consider writing and transfer in the context of troublesome knowledge. Most recently, Linda Adler-Kassner and Elizabeth Wardle, along with thirty other Writing Studies scholars have presented five threshold concepts of writing (2015). Those threshold concepts are

- Writing is a Social and Rhetorical Act
- Writing Speaks to Situations through Recognizable Forms
- Writing Enacts and Creates Identities and Ideologies
- All Writers Have More to Learn
- Writing Is (Also Always) a Cognitive Activity

## **ACRL STANDARDS REVISION, THRESHOLD CONCEPTS, AND METALITERACY**

While the ACRL *IL Standards* were widely accepted by academic librarians and have formed the basis of many collaborations between librarians and faculty from across disciplines, the *IL Standards* have also faced significant criticism. In particular, research and theory has shown that rather than a prescriptive and de-contextualized set of skills, IL is a contextualized and situated concept (Bruce, 1997; Lloyd, 2010; Lupton, 2004; Norgaard, 2003). In addition, Carol Kuhlthau's (2004) research has shown that like writing, research is a process. In addition, the information environment has changed significantly since the inception of the *IL Standards*, both in the context of collecting information and in its analysis and use. Individuals are no longer the consumers of pre-packaged

information; they are also producers of information in dynamic and ever changing landscapes.

In recognition of the evolving definition and understanding of IL based on research and theory, the *Framework for IL* moves away from a standards-based approach to one that is grounded in threshold concepts and metaliteracy. Rather than a prescriptive set of standards, the *Framework for IL* is intended to be situational; that is, the intent is that each institution implement it and develop learning outcomes based on local context. The new definition of IL emphasizes the dynamic and flexible nature of the concept:

Information literacy is the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning. (ACRL, 2015)

For Writing Studies, the shift represented in the *Framework for IL* should be a comfortable one as it is similar to developments within the discipline to emphasize rhetorical (and contextual) pedagogy. However, the *Framework for IL* presents challenges to the discipline of Writing Studies. Clearly, how we approach IL as a pedagogical concept within curricula and for assessment will be challenged. In particular, the place of the traditional “research paper” assignment may continue to be contested and evolve as we help students adopt and adapt to the threshold concepts and metaliteracy. This challenge potentially benefits student learning by instilling a richer and fuller understanding of information and its use and presentation and their own role as both consumer and producer of information.

## THE FRAMEWORK FOR IL THRESHOLD CONCEPTS

The *Framework for IL* is divided into six frames; each frame consists of associated knowledge practices and dispositions.

*Authority Is Constructed and Contextual* recognizes that information is produced within a context and that authority—expertise and what is accepted as expertise—differs based on discipline or context. Novices rely on superficial characteristics to identify authority such as publication type or academic credentials; experts rely on and are open to changes in schools of thought and discipline- or context-specific paradigms. The concept that authority is contextual is a comfortable one for Writing Studies as it recognizes that authority comes from disciplinary values, conversations that evolve with research and theory building within a discipline, industry, or other context. Yet, in too many

cases, students are taught to evaluate authority based on rote mechanical criteria such as an author's degree or affiliation rather than situating a source within the broader disciplinary context/conversation.

*Information Creation as a Process* recognizes that information is an intentional act of message creation that may take place in any format/media and that is the result of a process that involves research, creation, revision, and dissemination. Experts understand and evaluate the process of creation as well as the final product to evaluate the usefulness of information whereas novices frequently focus on the finished product (or don't recognize that a product may be dynamic). In today's information landscape, in which information may be produced, disseminated and continually evolve within a dynamic medium, the ability to understand process and how format/media impacts information (as both a producer of it and a consumer of it) is critical. Even when assignments involve dynamic media, often the constraints of a classroom mean that conceptually they appear to be static (one author or team of authors producing a finished product that is graded and forgotten) rather than the type of process that may take place within the workplace or in personal lives (creating a product that is then continually commented upon and/or revised). The ability to understand this has implications for evaluating information. In addition, as a threshold concept for IL, *Information Creation as a Process* evolves beyond the traditional interpretation of the "writing process" or "research process" to incorporate a more realistically dynamic process that is potentially never-ending.

*Information Has Value* recognizes that information may have several different types of value: economic, educational, as a means to influence, or as a way to negotiate and understand the world. The value of information is impacted by legal and sociopolitical interests for both production and dissemination. This threshold concept is clearly associated with critical thinking aspects of the WPA OS as well as Knowledge of Conventions outcomes to understand legal implications of intellectual property and attribution.

*Research as Inquiry* emphasizes that research is an iterative process of ongoing inquiry and extends beyond academics. For Writing Studies, this threshold concept is most closely associated with what is traditionally viewed as "research process"—that is, the establishment of a need (research question or thesis) and a plan to collect data/information based on that need.

*Scholarship as Conversation* recognizes the role of discourse communities and the evolution of discourse over time resulting from different perspectives and interpretations of information. Seemingly overlapping with "Authority is Constructed and Contextual, *Scholarship as Conversation* focuses on the broader disciplinary/social/industry conversation of relevant topics/interests rather than on the evaluation of individual pieces or sources.

*Searching as Strategic Exploration* recognizes that the search for information is iterative and non-linear and is based on the evaluation of information sources to adapt searches and collection of information. Similar to Research as Inquiry, this threshold concept focuses on the search process itself and the mechanics of that process.

## METALITERACY

The *Framework for IL* draws upon metaliteracy as a foundational principle in conjunction with threshold concepts. Similar to the way that metacognition is defined as “thinking about thinking,” metaliteracy refers to “literacy about literacy.” It has become almost a commonplace in recent years to identify or describe certain skill sets as literacies: visual literacy, critical literacy, and digital literacy are just a few. How these literacies are defined and understood is dependent on the community of practice to which they are most associated; many reflect similar and overlapping skills and abilities.

As defined by Thomas Mackey and Trudi Jacobson (2011, 2014), metaliteracy re-envision IL as an overarching literacy in which individuals are both consumers and producers of information. The four domains that form the basis of metaliteracy are behavioral, cognitive, affective, and metacognitive. Metaliteracy also forms the theoretical foundation for the *Framework for IL* in conjunction with the six frames and related dispositions. These four domains serve to integrate spheres of learning in a way that fosters student development. This makes sense in terms of teaching for transfer. When we cross through the portal, to use Jan Myer and Ray Land’s metaphor, we have changed the way we think, the way we perceive things, the way we act, and the way we reflect about what we have done and need to do. Further, the domains are familiar to Writing Studies as they also form the basis of the WPA OS and Habits of Mind.

## ACRL *FRAMEWORK FOR IL* AND THE WPA OS/HABITS OF MIND

In previous work, we have noted the connections between the original *IL Standards* and the WPA OS (D’Angelo & Maid, 2004; Maid & D’Angelo, 2012) there seem to be real differences in the movement of the revisions for both groups. Both documents emerged in the 90s, partly as a result of the general environment that called for more accountability and assessment in higher education. Both standards and outcomes nicely fit the model for assessment purposes. Both disciplines were able to use their respective standards and outcomes for that purpose. However, while assessment is a good thing, especially when

groups need accountability with a variety of constituencies, neither document really speaks to pedagogical concerns or learning theory.

### **WPA OUTCOMES: WHAT THEY'RE GOOD FOR AND WHAT THEY'RE NOT GOOD FOR**

The original impetus for the WPA OS came from a grassroots effort of writing program administrators who were convinced that even though they oversaw programs with widely diverse curricula, there was an unarticulated agreed-upon sense of what it was that students were supposed to learn in first-year composition. The original WPA OS articulated that previously unspoken sense of “what it was that students should know when they finish the course.”

We can see, by looking at the original statement adopted by WPA, how easy it would be for both students and teachers to interpret the outcomes as goals that can be checked off. In this sense it is similar to the *IL Standards* and the potential to see it as a discrete set of skills instead of contextualized set of outcomes. The outcomes are defined by four categories: Rhetorical Knowledge; Critical, Thinking, Reading, and Writing; Processes; and Knowledge of Conventions; each category is divided into explicit statements articulating individual outcomes (<http://wpacouncil.org/positions/outcomes.html>).

Not seeing the outcomes as skills to be learned so students can move on to other things is crucial when we are concerned with the idea of transfer—the idea that something learned in one context can be effectively adapted and applied in another context. One of the most common complaints WPAs hear is that students “can’t write” even though they’ve successfully completed first-year writing or disciplinary writing courses. This phenomenon certainly isn’t unique to writing; anecdotally it is not uncommon for instructors to complain that students don’t carry what they learn in one course to another even within their disciplinary courses. Of course, faculty in all disciplines have undoubtedly heard or read similar complaints from employers about students who haven’t learned or “can’t write, can’t research, can’t do whatever it was they were supposed to have learned.” But learning is not a linear lock-step process. Is it, then, that students don’t learn? Or have they, in fact, learned but not transferred that learning for some reason?

In 2011, driven by the need to determine what constitutes “readiness for college success,” The Council of Writing Program Administrators, the National Council of Teachers of English, and the National Writing Project jointly adopted the *Framework for Success in Postsecondary Writing*. The hallmark of this document are the “Eight Habits of Mind” that mark the processes of successful 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

We can easily see these habits of mind are not something that can be checked off as an assessment of skills. They are clearly difficult to demonstrate and/or assess. How, for example, would a program assess “curiosity” or “openness”? Of course, they weren’t intended to be assessed; instead they are intended to be descriptors of behaviors of successful writers that should be emulated. Unlike outcomes articulated in the WPA OS, the habits of mind are attributes or behaviors. If we view the habits of mind in the context of metaliteracy, they fall into the affective and metacognitive domains. In the context of the *Framework for IL*, the habits of mind are similar to and serve the same purpose as the dispositions articulated for each frame. The *Framework for IL*, however, took a different approach by integrating specific dispositions associated with each frame rather than a separate document. As such, it presents a more integrated whole in terms of contextualizing student learning.

While the habits of mind or dispositions may be less teachable, clearly possessing them, since they are not context dependent, theoretically will more likely allow students to transfer skills. In fact, Dana Driscoll and Jennifer Wells (2012) suggest that individual dispositions should be an area of writing transfer research. Wardle (2012) further called for more research on how educational systems encourage specific dispositions within students with an emphasis on “problem-exploring dispositions” vs. “answer-getting dispositions” and the influence of standardized testing as facilitating answer-getting dispositions in students.

In *Writing across Contexts*, Kathleen Yancey, Liane Robertson, and Kara Taczak (2014) emphasize writers’ needs to take control of their own learning processes and that, as instructors, we need to construct pedagogies that will help them do so. Yancey, Robertson, and Taczak describe a “teaching for transfer”

model for writing classes which they believe guides students to learn and transfer knowledge about their writing. A key component of this model is metacognition to facilitate students' reflection upon what they have learned and how it can be applied to other contexts. Metacognition, or reflection, has of course been well-documented as a strategy to facilitate student learning. The work of Yancey et al. is based, for example, on the National Research Council's *How People Learn* (2000) and Yancey's own extensive work on reflection and its use in writing classrooms. Their work points to the realization that students must first learn the appropriate language in order to be able to articulate their learning. Further, they acknowledge the role of prior knowledge in student learning (a nod to dispositions) as either a conduit or barrier to learning.

## MAKING SENSE OUT OF RELATED CONCEPTS

So we see some hints at how these related ideas—threshold concepts, metaliteracy, habits of minds/dispositions—might have an impact on developing a writing pedagogy that would not only stress the ability to be information literate but also allow student writers to transfer learned concepts from one context to another. Where do we go from here? An example may help to illustrate how these concepts are related in practice.

The *Framework for IL* identifies Information Creation as a Process as a threshold concept. For ages, writing instructors have been trying to teach students that “writing is a process.” Many of us have crossed that portal and can't understand how writing can be viewed in any other way. However, how many of us always really believed that in practice writing is a process? Can we articulate when we really passed through the portal? Can we point to not when we learned about process in an “I can come up with the right answer on a test” way (based on the work of Flower and Hayes), but truly changed our thinking to understand that effective writing can only be undertaken through a process? Do our students really understand this? Can we articulate what process means in an era in which information is communicated in media that is not static or fixed so that there may not be, in reality, a “final product”? We can assess it by requiring drafts and peer review and the like, but do they “really get it” or are they simply meeting a course requirement to get the grade?

Let us offer a personal anecdote to show how it might really be working based on Barry's experience with “crossing the threshold” of understanding writing (information creation) as a process. He's not quite sure when he was first introduced to the idea that writing is a process since high school teachers and college TAs didn't then teach process as we have come to understand it. They talked about formal outlines, first drafts, and final drafts. That didn't connect

with Barry; instead his process included lots of reading and thinking. Eventually, close to when the writing was due, he'd type up (using first a manual and eventually an electric typewriter) a draft, go over the draft for typos and the like. Then he'd retype the final draft and hand it in. Perhaps since there were identifiable steps, that was a process. But when he first started teaching writing, he was introduced to the whole process idea as a disciplinary construct. But he taught it without really believing in it since the process that worked for him didn't fit the model that was generally accepted as "writing process." In a sense, he was in a liminal state—he understood the concept intellectually but didn't fully accept it. In part this may be due to the concept of "writing process" as troublesome knowledge. What he was being told was writing process didn't fit his conception of it. Whether this was due to teaching that didn't quite resonate or his own ties to his own prior knowledge, for Barry, the concept wasn't fully sinking in.

Then one day as a relatively new assistant professor he received a manuscript he had submitted back with a "revise and resubmit" verdict. Most of the revisions were simple and easy to do. However, there was one paragraph, where the editor asked several questions that required some serious thinking in order to answer the concerns. Typing a new paragraph on an electric typewriter didn't work so after a couple of tries, he then tried to insert longhand comments on the typescript. Nothing worked, other than growing frustration until he had an idea. The department had just received two TRS-80 computers with a word processing program so he decided to word process the troublesome paragraph. After typing it in and printing it out to read it, he made some additional changes and was easily able to rewrite the text on the screen—in fact, he wrote at least a dozen versions of that paragraph.

What does this have to do with crossing the threshold of "writing process" or Information Creation as a Process? First came the recognition of the power in using the new technology. He now understood the capabilities and constraints of creating information through various processes and with various technologies. But then came an additional realization, and the threshold was finally crossed. Barry finally realized that this was what people were talking about when they were talking about "writing as process": the reiterative and dynamic process of revision, feedback, revision, and dissemination. Barry was transformed in the way Meyer and Land describe as crossing the threshold to not only understand a concept but be transformed by it. He could never go back to the old way of seeing and practicing writing as a process.

The question is, now that the threshold was crossed, could he teach it better? The honest answer is he doesn't know for sure. Which leads us to the connection to dispositions and to habits of mind. The passage through the portal, attaining the threshold concept and never being able to look back, is an incredibly

individual act. That doesn't mean we should not attempt to help our students understand the concepts and be transformed; it just means that doing so is neither easy nor "canned." Interestingly, "Process" is not listed as a "threshold concept of writing" in the Adler-Kassner and Wardle book. This may be one more indication of the incredibly individual nature of what we are describing.

And therein lies the challenge of the *Framework for IL*. The integration of threshold concepts and dispositions is a significant evolution in our understanding of student learning. To understand what makes up a concept as complex as IL, we need a way to articulate it. Using language which breaks down threshold concepts into knowledge practices and dispositions may on the surface appear to be similar to the standards model: a listing of skills or abilities or practices that can be discretely assessed. However, the challenge is to go beyond that surface appearance to understand how deeply situated and contextualized IL is based on the information landscape (discipline, industry, personal life of the individual) *and* on the individualized dispositions of each person.

So, while we have seen two different professional organizations, who have often had intertwined instructional goals, develop their own statements about what students should know, we now see both of these professional organizations slightly diverge as their statements get revised. Both ACRL and WPA created their original documents out of the need for assessment and accountability. It appears that the latest revision of the WPA Outcomes Statement is still in that mode. ACRL, on the other hand, has moved to a new framework that stresses threshold concepts—or ways of changing how students think about information. Still, it would be wrong to assume that while ACRL has evolved in a slightly different direction from 15 years ago that WPA has simply tweaked and stagnated. The creation of the *Framework for Success in Postsecondary Writing* with its Habits of Mind, clearly moves WPA in the same direction as ACRL. Finally, then, we can see disciplinary leadership moving beyond assessment to transfer, and in some ways embracing the importance threshold concepts have in the way students not only learn but transfer skills and knowledge beyond a single classroom setting. Looking at transfer really means looking at education in a different way. It moves beyond teaching students identifiable and quantifiable facts and skills that are easily assessed within the classroom context and towards a pedagogy that teaches students how to apply what they have learned in the classroom to other classrooms and other areas of life.

The *Framework for IL* has the potential to open new dialogs between faculty, librarians, and administrators to share responsibility for the teaching and assessment of IL. As Rolf Norgaard and Caroline Sinkinson (Chapter 1, this collection) have pointed out, those dialogs and action resulting from them have more often than not been aspirational rather than reality or limited to individual

initiatives. Still, progress has been made and the *Framework for IL* with its foundation in core principles of threshold concepts and metaliteracy provides an opportunity for those of us in Writing Studies and in Library and Information Science to do more than simply focus on a common concern related to transfer as we investigate ways to use seminal documents within both fields. It will no longer be enough to understand one another's perspectives and only to engage in dialogue. We now need to actively partner together to move forward with helping our students become information literate.

## REFERENCES

- Adler-Kassner, L., Majewski, J. & Koshnick, D. (2012). The value of troublesome knowledge: Transfer and threshold concepts in writing and history. *Composition Forum*, 26. Retrieved from <http://compositionforum.com/issue/26/troublesome-knowledge-threshold.php>.
- Adler-Kassner, L. & Wardle, E. (Eds.). (2015). Naming what we know: Threshold concepts of writing studies. Logan, UT: Utah State University Press.
- Association of College and Research Libraries. (2015). *Framework for information literacy for higher education*. Retrieved from <http://www.ala.org/acrl/standards/ilframework>.
- Bruce, C. (1997). *The seven faces of information literacy*. Adelaide, Australia: Auslib Press.
- Clark, I. L. & Hernandez, A. (2012). Genre awareness, academic argument, and transferability. *WAC Journal*, 22, 65–78.
- D'Angelo, B. J. & Maid, B. M. (2004). Moving beyond definitions: Implementing information literacy across the curriculum. *Journal of Academic Librarianship*, 30(3), 212–217.
- Driscoll, D.L. & Wells, J. (2012). Beyond knowledge and skills: Writing transfer and the role of student dispositions. *Composition Forum*, 26. <http://compositionforum.com/issue/26/beyond-knowledge-skills.php>.
- Kuhlthau, C. C. (2004). *Seeking meaning. A process approach to library and information services*. Westport, CT: Libraries Unlimited, Inc.
- Limberg, L., Alexandersson, M., Lantz-Andersson, A. & Folkesson, L. (2008). What matters? Shaping meaningful learning through teaching information literacy. *Libri*, 58(2), 82.
- Lloyd, A. (2010). *Information literacy landscapes: Information literacy in education, workplace and everyday contexts*. Oxford: Chandos Publishing.
- Lupton, M. J. (2004). The learning connection: Information literacy and the student experience. Blackwood, South Australia: Auslib Press.
- Mackey, T. P. & Jacobson, T. E. (2011). Reframing information literacy as a metaliteracy. *College & Research Libraries*, 72(1), 62–78.
- Mackey, T. P. & Jacobson, T. E. (2014). *Metaliteracy*. Chicago: Neal Schuman.
- Maid, B. M. & D'Angelo, B. J. (2012). The WPA outcomes, information literacy, and challenges of outcomes-based curricular design. In N. Elliott & L. Perelman (Eds.),

- Teaching and assessing writing: A twenty-fifth anniversary celebration* (pp. 99–112). New York, NY: Hampton Press.
- Meyer, J. H. F. & Land, R. (2006a). Threshold concepts and troublesome knowledge. An introduction. In J. H. F. Meyer & R. Land (Eds.), *Overcoming barriers to student understanding. Threshold concepts and troublesome knowledge* (pp. 3–18). New York, NY: Routledge.
- Meyer, J. H. F. & Land, R. (2006b). Threshold concepts and troublesome knowledge. Issues of liminality. In J. H. F. Meyer & R. Land (Eds.), *Overcoming barriers to student understanding. Threshold concepts and troublesome knowledge* (pp. 19–32). New York: Routledge.
- Norgaard, R. (2003). Writing information literacy: Contributions to a concept. *Reference and User Services Quarterly*, 43(2), 124–130.
- Wardle, E. (2012). Creative repurposing for expansive learning: Considering “problem-exploring” and “answer-getting” dispositions in individuals and fields. *Composition Forum*, 26. Retrieved from <http://compositionforum.com/issue/26/creative-repurposing.php>.
- Yancey, K., Robertson, L. & Taczak, K. (2014). *Writing across contexts: Transfer, composition, and sites of writing*. Logan, UT: Utah State University Press.