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1

RETURN TO YOUR SOURCE

Aesthetic Experience in Online Writing Instruction

Daniel Ruefman

The controversy surrounding the online writing classroom is something that I have been well aware of, ever since I began studying them as a graduate student. One of my mentors at that time informed me of just how online writing instruction was creating a culture of academic mediocrity. At the time, he had never seen a study that indicated definitively that online instruction was more effective than face-to-face, though some studies at the time indicated that students were achieving outcomes in the online classroom at a comparable rate with those in more conventional classrooms.

During the 2009–2010 academic year, I found myself engaged with a series of case studies that would ultimately form my dissertation. The goal was to gain a better understanding of the pedagogical practices implemented by first-year writing instructors in face-to-face, online, and hybrid courses. Over the course of this investigation, I quickly realized the online course I was observing was using far less technology than the instructors who taught in the other two settings (Ruefman 2010). While instructors in the face-to-face and hybrid classrooms freely used a variety of web-based technologies, like YouTube and Second Life, the instructor in the online course provided directions for course activities in the form of cumbersome paragraphs supplemented with PDFs and Word Documents (figure 1.1). Essentially, the instructor whose class existed only because of web-based multimodal technologies created a monomodal, text-heavy course that used these technologies less than the other instructors sampled for these case studies.

Following the defense of my dissertation, I constantly revisited the original case study and began to wonder if these findings were limited to this single instructor or whether they were indicative of a larger trend in online writing instruction. As I continued this line of inquiry, much

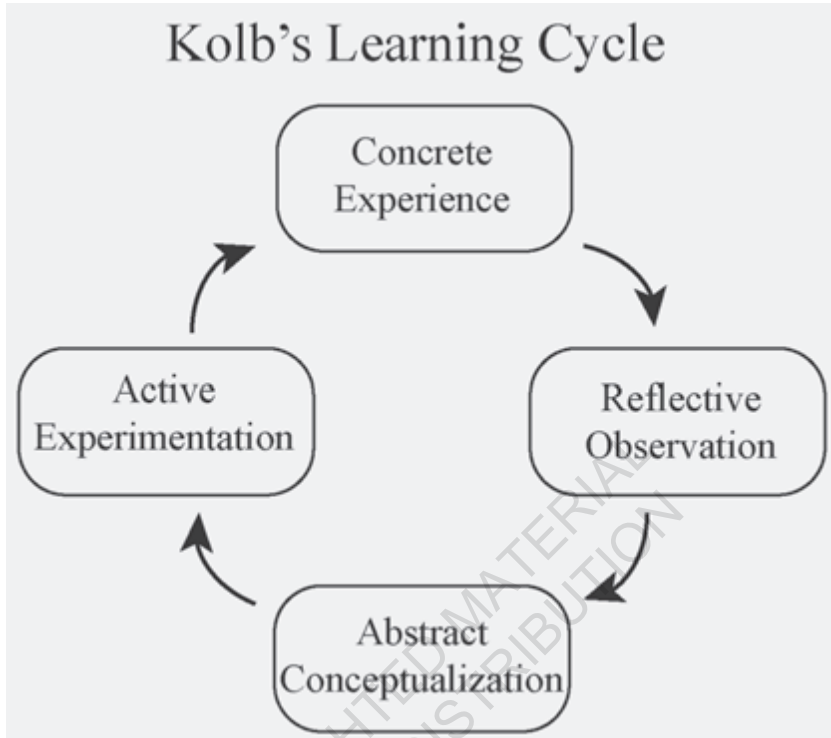


Figure 1.1. Depiction of a simplified version of Kolb's learning process as described in his seminal work, *Experiential Learning* (Kolb 1984)

of what I found mirrored those original findings. Most of the sampled instructors facilitated text-heavy, monomodal courses that embodied a highly transactional pedagogical model. Modules often contained large passages of text and typed course materials that were uploaded on the course management systems (CMS).

These one-dimensional courses are simply not compatible with the way the human brain is wired to learn. Over the millennia, the human brain has been wired to respond to external sensory stimuli; sight, sound, taste, touch, and smell were the primary way that we learned about the world. Scientific discovery is propelled by experimentation and the observations made are often based upon what the scientists see, hear, taste, feel, or smell. When educational environments are devoid of sensory stimuli, they become sterile and inaccessible to many students.

KOLB'S EXPERIENTIAL LEARNING THEORY AND AESTHETIC EXPERIENCE

Before it is possible to comprehend the importance of aesthetic experience in online education, an understanding of the terminology is required. *Aesthetics*, in contemporary terms, often refers to concepts of pleasure or artistic beauty. Further exploration reveals that the term is actually derived from *aesthetikos*, a Greek word that translates as “capable of sensory perception” (Uhrmacher 2009). An aesthetic learning experience is therefore not one that is deemed as “pleasurable” or “beautiful,” but it is one that is made tangible by the senses—sight, sound, taste, touch, or smell.

Sir Ken Robinson is an educational scholar who has previously touched on the need for aesthetics in American public education. In his presentation entitled “Changing the Paradigm,” he explains that “aesthetic experience is one in which your senses are operating at their peak, when you are present in the current moment, when you are resonating with this thing that you are experiencing, when you are fully alive. An anesthetic is when you shut your senses off and deaden yourself to what is happening” (Robinson 2010). By creating one-dimensional, text-heavy online courses, writing instructors are fostering anesthetic, sterile experiences that require students to shut their senses off, depriving them of the learning tools gifted to them by the nature of human biology.

To further understand the role that aesthetic experience plays in learning, it is vital to refer to David A. Kolb's experiential learning theory. Kolb explains that experiential learning is rooted in the concept that “ideas are not fixed and immutable elements of thought but are formed and re-formed through experience . . . knowledge is continuously derived from and tested out in the experiences of the learner” (Kolb 1984). For him, knowledge stems from a process of active experimentation, whereby the learner continually tests what they know and amends their understanding based on the results.

Learning can be best understood as a cycle. It consists of four different stages: (1) concrete experience, (2) reflective observation, (3) abstract conceptualization, and (4) active experimentation. For Kolb, learning is best thought of as a cycle, that has no definitive beginning or end. Depending on the learning style of the student, their preconceptions, beliefs, or experiences will often cause them to resume their learning process at a different stage of the cycle, but ultimately all four stages must be encountered to truly build knowledge.

To better illustrate the learning process, consider the way you learn a new word. You first encounter that term through one of your senses.

Perhaps someone uses it in conversation and you hear it. Maybe you see the written term while reading a book or article. The sensory input serves as a tangible, concrete experience that jumpstarts the learning process. Following that initial experience, a period of reflective observation will usually follow, where your experience is committed to memory. In this process, you begin to store the experience for future recall, remembering how the word looked or how it sounded in that initial context. Once committed to memory, you will transition to a stage of abstract conceptualization where you use the context clues to attribute meaning to the new term you are trying to understand. At this time, you recall things that you have already learned, meaning prefixes, suffixes, root words, and the other words that were mentioned or written around the new term. This is where critical thinking skills enable you to begin theorizing what the new term might mean and you begin to strategize ways that you might use this word in the future. Finally, the cycle proceeds to active experimentation where you put your plan into motion by using the new term in conversation or in your own writing. Often, this use of the new term will lead to another concrete experience. Perhaps feedback from your audience informs you that the term was misspelled or pronounced incorrectly, and that information is processed, building upon the previous lessons to establish a more refined concept of the new word.

Although there are different learning styles that impact how individuals move through these four stages, most true learning seems to conform to the process summarized by Kolb. The reason why is actually found in the more recent work of biologist, James E. Zull. Zull's book, *The Art of Changing the Brain*, maps many of the mind's structures, illustrating why Kolb's learning process seems to work so well. Zull (2002) argues that humans are simply biologically wired to learn in this way. According to Zull, if we examine the structures and functions of the human brain, we can observe that Kolb's learning process mirrors the organization of the brain's structures.

There are four regions of the cerebral cortex that Zull draws our attention to—the sensory cortex, temporal integrative cortex, frontal integrative cortex, and motor cortex. He goes on to state that “the sensory cortex receives first input from the outside world in form of vision, hearing, touch, position, smells, and taste. This matches with the common definition of concrete experience” (Zull 2002). In short, Zull is tracing the most basic components of Kolb's learning cycle, beginning with a sensory rich, concrete experience. When sensory stimuli are received by the brain, these impulses are concentrated in the sensory

cortex, located toward the rear of the brain (encompassing portions of the parietal, occipital, and temporal lobes).

Upon receiving the initial sensory input, the human brain immediately begins processing the information. The first step in doing so is to form a memory of the event. This occurs when “the back integrative cortex is engaged in memory formation and reassembly, language comprehension, developing spatial relationship . . . In short it integrates sensory information to create images and meaning” (Zull 2002). Here, Zull matches the functions associated with the back integrative cortex with those that occur during reflective observation (e.g., recalling relevant information, reliving past experiences, creating insights, and analyzing past associations). As the mind moves into this reflective process, neural activity shifts from the rear of the brain to the more centrally located temporal lobe and the information is stored in the hippocampus.

Once a memory is formed, neural activity shifts forward again, this time to the frontal integrative cortex. This region of the brain is responsible for “short-term memory, problem solving, making decisions, assembling plans for action, making judgments, directing the action of the rest of the brain, and organizing actions and activities of the entire body” (Zull 2002). Essentially, the frontal integrative cortex is the center of reason, where critical thinking takes place. These abilities are well suited for abstract conceptualization, where the working memory is reorganized and manipulated to develop working hypotheses and strategies for testing those hypotheses.

Finally, after the frontal integrative cortex has engaged with the short term memory, resulting in an abstract hypothesis, the final stage of the learning cycle involves “active experimentation,” where the learner puts a plan into action to test a theory (Kolb 1984). Zull traces this activity to the motor cortex, stating that this region “triggers all coordinated and voluntary muscle contractions made by the body, producing movement. It carries out plans and ideas originating from the front integrative cortex, including the actual production of language through speech and writing” (Zull 2002). In short, Kolb explains that experimentation must take place to develop true knowledge, to validate or refute the hypothesis developed by the learner. This process involves “conversation of ideas into physical action or movements of parts of the body, [including] intellectual activities such as writing, deriving relationships, and talking in debate or conversation” (Zull 2002). As the motor cortex is engaged, a shift in neural activity is observed moving back from the frontal lobe, to the more centrally located border of the parietal lobe, as the learning process completes one cycle, but active experimentation often produces

more sensory stimuli, there by moving back to a concrete experience and jumpstarting the cycle again.

Understanding Zull in relation to Kolb is vital to understanding how the brain has been wired to learn, as the proximity of the structures of the brain that are responsible for activities associated with learning are often adjacent to, or overlap one another, making it easy for signals to be sent from one portion of the brain to another. Considering the structures of the brain as they relate to the learning cycle also highlights the transitive nature of sensory experience, as it was described previously in Robinson's work.

The importance of aesthetic learning experience in all educational settings is undeniable. Robust, sensory rich environments and engaging activities that bring students into contact with one another, as well as with the subject matter, is how true learning occurs. However, many online writing courses still adopt a transactional approach to learning, presenting most—if not all—information to students in the form of typed PDF and Word Documents. This sort of passive learning is simply not compatible with the way the human mind processes information.

Aesthetic learning experience is of universal importance for all students, but in an increasingly digital age, dynamic sensory experience is particularly important to the writing classroom. After all, true literacy in the twenty-first century requires readers and writers to continually code-shift between linear (textual) and nonlinear (graphic) components of written texts (George 2002, 16). Writing instructors must encourage their students to create multimodal texts in which the written word is supported by graphic and aural components. In the words of Takayoshi and Selfe (2008):

Whatever profession students hope to enter in the 21st century . . . they can be expected to read and be asked to compose multimodal texts of various kinds, texts designed to communicate on multiple semiotic channels, using all available means of creating and conveying meaning . . . If composition instruction is to remain relevant, the definition of 'composition' and 'texts' needs to grow and change to reflect peoples' literacy practices in new digital communication environments. (3)

Essentially these scholars are arguing for the inclusion of aesthetic writing assignments that require students to compose documents uniting photographs, animated clips, videos, and audio files with written words to communicate a message in a variety of rhetorical contexts. This allows instructors to tap digital writing skills that students are already adept at using, ultimately increasing student engagement. Moreover, these are the contemporary writing skills demanded by

the twenty-first century workplace, which makes these writing courses more relevant.

Given that online writing classes exist wholly within the digital environment, it would seem reasonable to consider them as prime territory for engaging students with web-based, multimodal texts. This class format creates easy access to a variety of media, including video clips, podcasts, blogs, games, and a wealth of web-texts. Furthermore, screen casting, video-editing software, and hosting sites (e.g., Vimeo and YouTube) make it easy for instructors to create their own multimodal resources to engage students more fully. The benefits of doing so was recently captured by a study from Texas Woman's University that examined the impact of personalized, instructor-made videos on student engagement in the online classroom. The study suggested that 88 percent of students who were enrolled in online courses where instructors created their own multimodal texts indicated that those materials enriched the course content; furthermore, students who viewed instructor-created videos expressed a better understanding of who their instructor was and an increased willingness to engage them with comments and questions (Rose 2009). While creating such resources takes time, it is worth it to meet students on a familiar plain.

CONTEXTUALIZING THE PROBLEM

During the 2013 Minnesota Writing and English (MnWE) Conference, I had the opportunity to discuss pedagogical strategies with online instructors, many of whom were adjunct faculty, from a variety of two and four-year institutions. After reflecting on many of these issues, several of the individuals engaged in this discussion admitted that the online courses they had been teaching, or were preparing to teach, were consistent with the monomodal examples I had shared with them during my presentation. One of the participants commented, "I don't teach this way in my face-to-face classes, so why am I teaching this way online?"

Fault does not lay entirely with instructors. The commodification of education has forced the composition classroom to adopt an outcome-based, corporatized model of efficiency. Economic viability is an imperative to most colleges and universities, public, private, and for-profit alike. Institutions increase the number of courses taught by instructors, overload students in each section, and condense academic calendars, limiting the time necessary for instructors to develop an effective pedagogical strategy, specific to the students in each course. This business model breeds a culture of academic mediocrity, as the most efficient means of

providing information to students is in the form of text-heavy, skill-and-drill activities, that allow students to demonstrate their level of proficiency with each of the course aims outlined in the syllabus. Often, many educators simply lack the time to develop the instructional resources that effectively engage their students in multiple modes.

Another issue that arose from the conversation with the MnWE instructors that may lead to the perpetuation of a monomodal style of instruction is the overwhelming presence of monomodal online courses themselves. Some of these first-time instructors based their course design on the examples offered by colleagues. Without time to consider their own pedagogical strategies, these instructors emulate what they have seen others doing, perpetuating the less effective, less engaging experience.

MULTIMODALITIES AND AESTHETIC EXPERIENCE

To understand how to create a more aesthetic learning environment online, it is important to understand the role of multimodal texts and technologies. Multimodal texts have long been defined as “texts that exceed the alphabetic and may include still and moving images, animations, color, words, music, and sound” (Takayoshi and Selfe 2008). While monomodal courses communicate in only one mode of communication—written, alphabetic language, multimodal texts and technologies utilize more than one method to communicate with the audience. For example, video clips may often provide visual stimuli that is accompanied and supplemented by audio. Multimodal texts offer the audience information through two or more sensory perceptions that, together, provide a more aesthetic learning experience for the audience.

Today’s digital age offers a proverbial buffet of multimodal texts and technologies that instructors can use to supplement learning. YouTube videos, PowerPoint and Prezi presentations, video games, and interactive websites represent only a few of the options available to an instructor short of time. By engaging two different senses at any given time, these types of resources are capable of fostering more concrete experiences throughout a given course than written documents and correspondence alone could provide. However, simply incorporating these resources is not sufficient. It is necessary to consider how materials complement one another to build a more complete understanding of the course material.

All multimodal resources must be consistent with the print media that is already included in the writing courses. When used appropriately, multimodal texts serve to supplement and reinforce the content of existing course materials. Although instructors may find some open-source,

multimodal materials compatible with their aims, occasionally these materials can cause some confusion if their content differs in any significant way from the information provided in the instructor-made PDFs or Word Documents. For example, in one of my own online writing courses, students were asked to read an essay written by a fairly popular contemporary American author. After searching the web, I located a video of the author reading his essay at a public reading a few years prior. Thinking that this reading would add a dimension to the experience of my students, I embedded the video on the CMS. I had not noticed that the reading was actually of an earlier version of the essay, and several phrases were omitted and revised in the draft of the printed essay that I had included as a PDF to my students. These subtle changes created major reading comprehension issues, particularly for those students who chose to read along with the author. Instructors looking to incorporate multimodal materials should review those materials carefully to ensure that all information is up to date and compatible with the other documents used to facilitate the class. However, whenever possible, I find that the best course materials are those created by the instructor.

Developing concrete, sensory experiences in online courses is important to present information to students, but it is also important to establish a sense of community. A recent study, conducted at Texas Woman's University, examined the impact of personalized, instructor-made videos on student engagement in the online classroom. Although the findings were based on a limited sample and are not widely generalizable, the study indicated that 88 percent of students who were enrolled in online courses where instructors created their own multimodal texts indicated that those materials enriched the course content; furthermore, students who viewed instructor-created videos expressed a better understanding of who their instructor was and an increased willingness to engage them with comments and questions (Rose 2009). Although it often takes time to create these personalized materials, doing so demonstrates a commitment to your students. Specialized delivery of lectures and personalized feedback allows you to lead by example. Students often emulate the tone of their instructors in both online and face-to-face classrooms. Engaged instructors provide a basis upon which students can model their own interactions with the material and with one another.

STRATEGIES FOR FOSTERING AESTHETIC LEARNING EXPERIENCE

As established previously, aesthetic learning is facilitated through multimodal concrete experiences. When we think about the learning cycle

emphasized by Kolb, it is clear that all learning builds upon the foundation of prior experiences of the learner. Providing experiences to online students in a way that allows them to absorb information through more than one of their senses, should provide a more thorough understanding of that information. Although it is true that no two courses (or students) are identical, there are a few strategies that could be universally beneficial to instructors seeking to create a more aesthetic experience in their online courses by providing direction, reinforcing content, and offering constructive feedback.

Providing Direction

Any assignment (whether in an online or face-to-face course), begins with the instructions provided to the students, detailing goals and objectives of the tasks set before them. In a face-to-face course, it is common practice to provide written instructions for major assignments that correspond with an explanation of the assignment that is provided during scheduled class time. When transitioning to online courses, instructors often provide those same written instructions to their students, but often overlook the oral explanation that they would normally provide during scheduled class time. On those occasions, the online course lacks aesthetically.

Supplementing written instructions with audio or video components is particularly important in online courses. Many college students today are resistant to reading intensive tasks and exhibit some challenges with reading comprehension (Worley 2011). When instructions are presented through multiple modalities, more complicated or confusing directions can be clarified and questions may be answered preemptively. This strategy can be helpful when addressing terminology and theories that are key to the discipline, but it can be equally beneficial to students as they interpret instructions related to course activities. Instructors teaching online can provide similar explanation by using screen capture software (e.g., Screencast-o-Matic, Jing, or Camtasia) to walk students through tasks outlined in the CMS and annotate the text with additional information that they would normally provide to face-to-face classes.

Providing multimodal instructions to students using these audio-video techniques can be difficult for some instructors, depending upon the CMS that is adopted by their home institutions. While some systems include a YouTube Mashup function, which enables you to embed web-based videos within modules in the same CMS, others only enable

instructors to add hyperlinks to external web-texts. In these cases, the best means of delivering this content may require instructors to build a parallel blog that houses information on a free hosting sight outside the CMS (e.g., Wordpress, Weebly, Jimdo, etc.). Screen capture videos with audio commentary may be uploaded to a video host site, like YouTube or Vimeo, and can then be embedded within the individual blogs. While there is the option of including a hyperlinked list of videos directly within most CMSs, a list of links is not as engaging as the embedded videos. Furthermore, this format more closely resembles the online experience that students have become accustomed to. Compartmentalizing these multimodal components within pages that mirror the setup of modules on the CMS is also a way that demonstrate continuity between the two systems.

Reinforcing Content

Once assignments are laid out for the students, there comes a question of how to best make course content accessible. Many scholars, like Karen Worley, have observed that today “the purpose of education is to produce learning, not deliver instruction. Faculty must strive to create a positive learning environment that enhances student learning and meets the needs of all adult learners” (Worley 2011). Students, particularly those who are digital natives, are accustomed to accessing information quickly through a variety of media, and Worley (2011) explains that they often harbor an expectation to continue to do so in the classroom environment. In online courses the technology used shapes that environment, given that these classroom communities occupy no physical space. The very technologies that are used by a tech-savvy society have a role to play in online learning, and it is up to instructors to incorporate technology in a purposeful way that is conducive to a more independent learning style.

As stated previously in this chapter, emerging research indicates that many online writing courses are particularly text heavy in their design, at a time when students are learning to read differently than ever before. Still, reading remains vital to learning and the goal of instructors should be to create an environment in which assigned readings are made accessible to their students. This can be done, once again, by supplementing readings with digital media that parallel or reinforce the concepts illustrated in those primary texts. Assembling multimodal theme-sets that are centered on a core text will allow students an opportunity to re-experience the content of that text aurally and

visually. Moreover, by juxtapositioning materials effectively, students are able to unpack key concepts in a way that prepares them for critical analysis (Richison, Hernandez, and Carter 2006). For example, logical fallacies may be a topic with which students may wrestle in any writing class—online or face-to-face (see table 1.1). To introduce the concept to students, instructors may include a reading from the course textbook. The introduction to Gary Goshgarian’s book, *Exploring Language*, includes a great discussion of some of the most common logical fallacies and provides a few basic examples of how those logical fallacies may be used. However, it may still be difficult for students to observe precisely how logical fallacies operate in different rhetorical contexts. To help students to broaden their understanding of the concept, the instructor may also present supplemental web-texts from publications, like the *Writing Commons*. This web-based, open-text resource includes a series of web-texts that define a variety of logical fallacies (some of which are also addressed in Goshgarian’s book). However, many of these web-texts include embedded YouTube videos that demonstrate how logical fallacies are employed by politicians and corporations through advertising. To go a step further, there are several vlogs produced by non-profit organizations which provide animated videos and lectures that delve more deeply into the topic, relating logical fallacies specifically to argumentation and critical analysis.

Offering Constructive Feedback

Most instruction in the contemporary writing classroom occurs not through pedagogical materials, but from the feedback prompted by student writing. Students learn to write best by writing and accessible feedback from the instructor is essential to guiding that process. Even in traditional classrooms, feedback takes the form of written annotations in the margins of the page. In online courses, the review functions provided in word processing programs, like track changes and comment functions in Microsoft Word, allow instructors to annotate materials in similar ways. However, recent studies have indicated that using screen capture technologies (e.g., Camtasia, Jing, etc.) and audio feedback have helped students apply instructor comments to their own writing (Eckhouse and Carroll 2013). Audio and video feedback does not take the place of written comments, but rather, it provides an opportunity for the instructor to clarify those comments. Most content management systems today include an audio grading function in their gradebooks, allowing the instructor to explain the rationale of their feedback in

Table 1.1. Sample theme-set for logical fallacies

<i>Primary/Core Text</i>	<i>Textual</i>
Goshgarian, Gary. 2013. "Introduction: Reading and Thinking Critically." <i>Exploring Language</i> , 13th edition. Boston: Pearson.	
<i>Supplemental Web-Texts</i>	<i>Textual/Visual</i>
McIntyre, M., and J. McKee. "Logical Fallacies." <i>Writing Commons</i> . Accessed January 28, 2014. http://writingcommons.org/open-text/information-literacy/rhetorical-analysis/logical-fallacies .	
Purdue University. 2013. "Logical Fallacies." Online Writing Lab. Retrieved January 28, 2014. https://owl.english.purdue.edu/owl/resource/659/03/ .	
<i>Supplemental Videos</i>	<i>Visual/Aural</i>
McRae, M., and J. Hutson. 2011. "Critical Thinking Playlist." <i>YouTube</i> . Accessed January 28, 2014. https://www.youtube.com/watch?v=iSZ3BUru59A&list=PLKCy4138IUoNp7kztKvMxpg0JXjVacqr- .	

a way written comments might not allow. Microsoft Word also allows the embedding of audio files within a document. Thus instructors may use basic audio recording software (e.g., Windows Sound Recorder or Audacity) to create WAV or WMA files that can then be inserted as an object directly into the Word Document. While multiple files can be included in a document, it is most practical for instructors to insert a single audio file that complements the written feedback. Moreover, audio files can establish a more personalized tone that makes students more receptive to the written feedback.

CONCLUSION

The transition from face-to-face instruction to the digital writing classroom is not simply a matter of dusting off old course materials and uploading them to the content management system. True learning takes place through aesthetic experience in an environment that is conducive to the learning process, and it is the responsibility of instructors to construct that environment. As online writing courses exist only through digital technologies, it is vital to utilize those technologies to engage students in a manner that is compatible with the biological learning process—at the center of which is sensory experience. In so doing, sterile, inaccessible web-based courses can be revitalized by taking into account the single most important variable in learning—the human element.

References

- Eckhouse, Barry, and Rebecca Carroll. 2013. "Voice Assessment of Student Work: Recent Studies and Emerging Technologies." *Business Communication Quarterly* 76 (4): 458–73. <http://dx.doi.org/10.1177/1080569913506488>.
- George, Diana. 2002. "From Analysis to Design: Visual Communication in the Teaching of Writing." *College Composition and Communication* 54 (1): 11–39. <http://dx.doi.org/10.2307/1512100>.
- Kolb, David. 1984. *Experiential Learning: Experience as the Source of Learning and Development*. Upper Saddle River, NJ: Prentice Hall.
- Richison, Jeannine, Anita Hernandez, and Marcia Carter. 2006. *Theme Sets for Secondary Students: How to Scaffold Core Literature*. Portsmouth, NH: Heinemann.
- Robinson, Ken. 2010. "Changing Paradigms." *YouTube*. Royal Society for the encouragement of the Arts (RSA), February 4. Accessed July 12, 2013. <https://www.youtube.com/watch?v=mCbdS4hSa0s>.
- Rose, Katherine Kensinger. 2009. "Student Perceptions of the Use of Instructor-Made Videos in Online and Face-to-Face Classes." *Journal of Online Learning and Teaching / MERLOT* 5 (3). Accessed June 23, 2013. http://jolt.merlot.org/vol5no3/rose_0909.htm.
- Ruefman, Daniel. 2010. "Examining the Influence of Multimodal New Media Texts and Technologies on First-Year Writing Pedagogies: A Cross Sectional Case Study." PhD diss., Indiana University of Pennsylvania.
- Takayoshi, Pamela, and Cynthia L. Selfe. 2008. "Chapter One: Thinking About Multimodality." In *Multimodal Composing: Resources for Teachers*, ed. Cynthia L. Selfe, 1–12. Cresskill: Hampton Press.
- Uhrmacher, P. Bruce. 2009. "Toward a Theory of Aesthetic Learning Experiences." *Curriculum Inquiry* 39 (5): 613–36. <http://dx.doi.org/10.1111/j.1467-873X.2009.00462.x>.
- Worley, Karen. 2011. "Educating College Students of the Net Generation." *Adult Learning* 22 (3): 31–9. <http://dx.doi.org/10.1177/104515951102200305>.
- Zull, James E. 2002. *The Art of Changing the Brain: Enriching the Practice of Teaching by Exploring the Biology of Learning*. Sterling, VA: Stylus Publishing.