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**Studies Comparing Outcomes Among Onsite, Hybrid, and Fully-Online  
Writing Courses  
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As more people seek their education through technologically-mediated modalities—i.e., people are increasingly taking courses online—questions have arisen about the effectiveness of online education. Perhaps some of these questions, particularly early on, have been framed in reactionary ways based on suspicions of education technology, but legitimate, outcomes-based questions have emerged. Do online as well as hybrid/blended courses provide students with effective learning opportunities? Do these types of courses work better for certain types of learners (and certain types of instructors), and, if so, how do we figure out who is best served? Do technologically-mediated courses provide different social and institutional experiences (e.g., retention)?

While such questions are legitimate, their key terms (e.g., “effective,” “better,” “different”) are often framed against conventional/traditional/onsite/face-to-face (f2f) courses; at worst, they are crudely phrased, positioning technologically-mediated courses defensively against the perceived “gold standard” of the onsite class experience: Do hybrid and online courses offer the same educational experience, opportunities, and, most importantly, outcomes as onsite courses? Certainly we want to know if the courses we teach are helping our students learn (don’t we?). However, the assumption of the onsite gold standard is—to say the least—flawed (see Sener 2004 below). As many veterans of on-campus course assessment would no doubt describe, the assessment measures of onsite courses are often oversimplified, nebulous, and/or laced with cause-and-effect fallacies. Even in a program lucky enough to have clear, agreed-upon course outcomes, those outcomes often defy measurement and are context-, teacher-, and/or student-specific. Despite the current assessment wave, most thoughtful reflection on course assessment reveals that determining what students learn in/because of a course is challenging.

To complicate matters further, this “difference” question between onsite and online instruction is specifically complex for writing courses. Writing researchers, administrators, and teachers have struggled to articulate what students learn in writing classes and, perhaps of equal importance, how concepts and skills *transfer* to other writing situations. This interest in writing knowledge/skill transfer has helped fuel the growth in Writing Studies/Writing About Writing approaches to writing instruction, as described in this CompPile bibliography by Doug Downs: <http://comppile.org/wpa/bibliographies/Bib12/Downs.pdf> (see also the related CompPile bibliography on educational transfer by Robin Snead:

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<http://comppile.org/wpa/bibliographies/Bib18/Snead.pdf>). The assessment challenges here are formidable. Yet researchers and teachers at various campuses who are working to design and articulate smart responses to these challenges are often subjected to an intense (arguably *unfair*) scrutiny because there is no foundational, widely-accepted criteria as to what clearly constitutes success in writing courses on those campuses, period. (At Drexel, we confronted went through a similar issueprocess, particularly with retention questions—see Warnock 2007.) , as I described in “And Then There Were Two: The Growing Pains of an Online Writing Course Faculty Training Initiative.” *Proceedings of the Distance Learning Administration 2007 Conference*, June 2007.) Before we start to feel too badly about the role of writing courses in this conversation, again consider that many people are also asking questions about efficacy and outcomes in education in general, especially higher education.

So the “effectiveness” of online and hybrid courses is more challenging and dynamic than it might first appear. This bibliography examines a sample of the work comparing and contrasting onsite, hybrid, and online writing courses. While my primary goal is to look exclusively at studies comparing writing courses, the entries below include studies of other types of courses that included a writing component as part of the assessment or that contained a particularly rigorous comparative methodology that I felt might be useful for composition scholars and teachers. In addition, a few studies, as noted, do not overtly compare modalities but comment on student behaviors or performances in online courses in ways that lend themselves to comparison with onsite courses. So several threads run through this annotated bibliography:

For those who are looking to this bibliography to respond to direct questions—whether spurred by personal inquisitiveness or an external stakeholder’s request—about the effectiveness of online and hybrid courses, pay particular attention to the *No Significant Difference* website, Means et al. 2010, and Sener 2004. The first two resources provide overviews that summarize hundreds of studies, finding, in general, “no significant difference” based on learning modality. Most direct comparison studies of modality found little or no difference among learners or the overall learning experience, whether in writing courses (Carter 2012, Finlay et al. 2004, Fortune et al. 2006, and Mehlenbacher et al. 2000) or in other types of courses with writing-related components (Bowen et al. 2012, Means et al. 2010, and Sussman & Dutter 2010). Basically, local assessment/comparison studies that seek to uncover or prove difference should be designed in ways that do not recreate well-traversed educational research paths. Sener argues strongly that assessors and researchers should move beyond comparisons and evaluate online learning on its own terms.

While generally few differences have been found in terms of educational outcome based on course modality, some studies identify nuanced differences in course experiences. Boyd 2008 and Ferriman 2013 identify ways digital learners might perform better. Sapp & Simon 2005 find differences in retention rates. Miron & Urschel’s 2012 broad study of a large for-profit educational provider, K12 Inc., advises caution about these types of providers; while not addressing course-level educational outcomes, that large study might help those thinking about major program- or even institution-level online course initiatives. Another large study, by Xu & Jaggars 2013, finds students of certain demographic groups in online courses had lower performances. A similar thread connecting through many studies is student adaptability, attitude, or preparedness, in particular Mehlenbacher et al. 2000, Sussman & Dutter 2010, Hacker

&Wignall 1997, and Xu & Jagers 2013.

In comparing educational modalities, studies often conclude by framing issues to consider about teaching online, including suggested instructor practices and approaches. Repeatedly, interactivity with not just the instructor but fellow students seems connected to student satisfaction and perhaps course success (Finlay et al. 2004, Fortune et al. 2006, Mehlenbacher et al. 2000, Sapp & Simon 2005, and Yagelski & Grabill 1998). Also, several studies indicate the emphasis on the student side in terms of preparation and motivation (Johnson & Card 2008, Sussman & Dutter 2010, and Yagelski & Grabill 1998).

Finally, this bibliography focuses on comparison studies of educational outcomes, but it also includes several pieces that may help define/structure approaches to thinking about the text-centric online writing course, especially Hawisher 1992, Hacker & Wignall 1997, Sener 2004, Wang & Woo 2007, and Yagelski & Grabill 1998.

Note that because of the subject matter, annotations usually briefly describe the study's exigency: to maintain the critical context, described above, of why we are asking comparative questions in the first place, it is necessary to understand what led these researchers to undertake their studies.

I want to emphasize the primary focus of this bibliography on composition and writing courses. Even casual online research will reveal a slew of research investigating online courses vs. onsite courses in general (again, see the *No Significant Difference* website). I also want to emphasize that mostly one finds no trend of difference in educational outcomes for student *writers* in these courses. A great deal of work is yet to be done, not only in how different modalities connect with outcomes but with educational experience. Teacher-researchers could add great value to this area by designing studies with large sample sizes, perhaps not so much to “prove” one modality is superior but to investigate which modalities are appropriate for certain types of students—and teachers. Through these types of studies, we will inevitably discover more about how people learn.

**Bowen, William G.; Matthew M. Chingos; Kelly A. Lack; Thomas I. Nygren**

Interactive learning online at public universities: Evidence from randomized trials

*Ithaka* (May 22, 2012)

<http://www.sr.ithaka.org/research-publications/interactive-learning-online-public-universities-evidence-randomized-trials>

Ithaka was founded by the president of JSTOR; this non-profit says its “fundamental aim is to support the advancement of research, teaching, and learning worldwide.” This report opens with a discussion of the “stagnant” levels of educational attainment in the U.S., despite the growth of online learning. The study suggests that “greater—and smarter—use of technology in teaching is widely seen as a promising way of controlling costs while also reducing achievement gaps and improving access”—as long as quality can be maintained. Quality drives this assessment of the “educational outcomes associated with [...] interactive learning online.” Citing limitations of

other studies, the authors compare over 600 hybrid and onsite students in seven statistics courses at six public universities. Using various approaches, including randomizing the students (but not the faculty), they attempt to determine which group has the more successful outcome in the courses, finding no statistically significant difference. According to Bowen et al. “this study supports a ‘no-harm-done’ conclusion.” The authors also perform what they call a speculative cost analysis of hybrid vs. onsite learning, suggesting the cost savings of the hybrid learning, albeit in a highly qualified way.

**KEYWORDS:** blended, distance, online, statistics-course, hybrid-course, outcomes, interactive, data, cost-analysis, review-of-scholarship

### **Boyd, Patricia Webb**

Analyzing students' perceptions of their learning in online and hybrid first-year composition courses

*Computers and Composition* 25.2 (2008), 224-243

This study investigated “the degree to which our uses of online technologies are helping us achieve LCE (learner-centered education) goals, particularly in first-year composition courses?” asks to what degree does online technology help teachers achieve learner-centered education (LCE) goals, particularly in first-year writing courses? Addressing what she finds as a dearth of research about student perspectives of online courses, Boyd surveys 170 Arizona State University online and hybrid students based on Chickering and Gamson’s Seven Principles of Learner Centered Education. She finds 75% of students said their interactions online with instructors were the same or more than with f2f instructors “and that the online environment provided unique opportunities for them to interact with their instructors” (231). Almost three-quarters of students also report having more or equal interaction with peers online than in onsite courses. Even though they feel interactions with instructors and peers are greater or equal to onsite courses, they want more of both; they recognize the potential for interaction provided by technological modalities but are dissatisfied overall with instructor interactions. Boyd suggests technologies such as Blackboard “can be well suited to achieving learning outcomes of writing courses” (238); in particular, she says message boards, a writing-centric technology, fit well into the goals of an online writing course, as students must write out their thoughts and do so for an “immediate audience” (239). Overall, students’ responses to open survey questions indicate support for LCE goals but responses to closed questions indicate they do not directly connect course written exchanges to their learning and still privilege teacher-centric feedback over peer feedback. In other words, Boyd says, “The interaction was present; students’ understanding of its significance was not” (240). She suggests we are at an educational “transition” point in which students’ expectations based on onsite learning still impact experiences in online courses, and thus online teachers must use overt strategies like frequent metacommentary, explicit discussion of course objectives, and engaged, frequent participation. Boyd includes a useful literature review about interaction and an instructor’s role in dialogue in online courses.

**KEYWORDS:** data, contrast-group, distance, online, FTF-online, blended, FYC, student-opinion, interaction, teacher-student, peer-peer, peer-evaluation, metacommentary

**Carter, LaTanya W.**

Determining if instructional delivery model differences exist in remedial English [doctoral thesis]

Lynchburg, VA: Liberty University (March 2012)  
<http://digitalcommons.liberty.edu/doctoral/511/>

This dissertation conducts a causal study comparing online and face-to-face students in a basic writing English course at one university, controlling for instructional modality. The researcher compares pre- and post-test assessment scores in the course, utilizing an ANCOVA, finding a slight advantage for face-to-face students. However, statistical analysis based on a t-test showed online students more frequently exhibited higher order thinking skills. Because of the difference in outcomes, Carter says, "Online and face-to-face education each has value that can differentiate each instructional delivery model over the other."

KEYWORDS: FTF-online, data, pre-post, evaluation, ANCOVA, t-test, critical-thinking, higher-order, basic, taxonomy

**Ferriman, Nicholas**

The impact of blended e-learning on undergraduate academic essay writing in English (L2)

*Computers and Education* 60.1 (2013), 243-253

This study examines writing differences through a quasi-experimental model, focusing on L2 learners, and it includes a brief but helpful overview of studies describing the value of hybrid learning as an optimal combination of online and onsite learning/teaching strengths. Ferriman describes a quasi-experimental study of a hybrid environment and its effect on academic writing assignments in English at a Thai college. An experimental group of 15 students used a message board (Ferriman chooses the "bulletin board" Nicenet for this study) and face-to-face communication in class to share and discuss essay topics. A control group of 15 students from two smaller classes used only F2F, in-class dialogue. Ferriman says the primary goal was to investigate "the effectiveness of an on-line bulletin board in helping students develop their skills in academic literacy" (244). Ferriman hypothesizes that the message board would compensate for the larger class size of the experimental group and result in no difference in writing performance. He compares the two groups using three variables for each of their three essays: number of references used, word count, and grade. The experimental group was higher on six of the nine outcomes; while the results were not statistically significant, he said, "It would appear that the use of the on-line bulletin board, Nicenet, may have mediated for larger class size." He ends with a discussion of different experimental conditions for such a study as well as how the importance of cultural learning context.

KEYWORDS: computer-mediated communication, cooperative, collaborative, pedagogy, L2, blended-classroom, multilingual, data, contrast-group, grade, essay-length

**Finlay, William; Christy Desmet; Lorraine Evans**

Is it the technology or the teacher? A comparison of online and traditional English composition classes

*Journal of Educational Computing Research* 31.2 (2004), 163-180

The authors base their study on previous research showing students are about as satisfied with their online courses as their f2f courses and perform about as well, essentially testing and examining the “no significant difference” phenomenon. They look at students at a large public university enrolled in both synchronous online (n=27) and f2f versions (n=95) of the same English Composition course. Looking at three student outcomes—satisfaction, learning, and participation in classroom discussion—they find “that being in an online class had a positive effect on satisfaction and participation, but no effect on learning even when we controlled for instructor behaviors and classroom characteristics.” The authors emphasize that the courses studied were synchronous, noting the many asynchronous online studies. They discuss previous work along the same lines as their study, for instance noting that course satisfaction is often connected to the amount of interaction students have with instructors and how clear course objectives are. The classes were not randomized, so the authors note inconsistencies in the populations, in particular that students in the f2f courses had higher GPAs, meaning “our results will probably understate the effect of being in an online class on these outcomes.” They conclude “both the technology and the instructor matter” and that online course success may be due interaction “between teacher and technology that was not captured by the quantitative evidence. The instructors in the online classes deliberately modified their teaching styles to take advantage of the technology. The result was a relaxed, egalitarian, and democratic classroom culture.”

KEYWORDS: pedagogy, distance, FYC, FTF-online, no significant difference, synchronous, data, student-opinion, student-satisfaction, technology

**Fortune, Mary F.; Bethany Shifflett; Robert E. Sibley**

A comparison of online (high tech) and traditional (high touch) learning in business communication courses in Silicon Valley

*Journal of Education for Business* 81.4 (2006), 210-214

<http://www.tandfonline.com/doi/abs/10.3200/JOEB.81.4.210-214>

The authors explore differences in student perceptions of both skill development and the value of face-to-face interaction in a business communication course offered online and onsite, hypothesizing there would be no difference in interaction or perceived learning scores between the two groups. First looking at two f2f courses and one online course, the researchers asked students open-ended questions about skill improvement and overall impressions, developing what they call the High Touch vs. High Tech (HTHT) survey instrument: 51 Likert-scale questions in areas such as demographic information, learning environment, technical skills, and amount of time and course content. They distributed 200 questionnaires to students in eight business communication courses (four online), receiving back 188. The F2F Interaction scale



items try to determine students' penchant for learning in f2f environments (e.g., a sample item was "Face-to-face instruction would help me understand the communication concepts better.") The Perceived Learning scale seeks to determine if students' skills, such as writing and interpersonal skills, improve in the class, based on their perceptions. Assessing the results with a battery of statistical analyses, the authors find that both groups of students found their environment equally effective for skill development (interestingly, the authors note that the test population was from the Silicon Valley, perhaps influencing their comfort with learning technologies). However, the authors find differences in the value placed on f2f interaction, with those taking the f2f courses valuing that type of interaction much more. In line with other studies, the researchers feel their results may support that online learners tend to be more independent; they also suggest instructors in online classes may simulate f2f-type interactions using anecdotes, humor, and tools like instant messaging.

**KEYWORDS:** business-communication, bizcom, no significant difference, interaction, distance, data, FTF-online

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**Hacker, Kenneth L.; Dennis L. Wignall**

Issues in predicting user acceptance of computer-mediated communication (CMC) in inter-university classroom discussion as an alternative to face-to-face interaction

*Communication Reports* 10.1 (1997), 107-114

In the context of this bibliography, this study may be interesting in its efforts to look at how students view electronic communication tools in an academic setting. Specifically, the authors investigated factors of computer-mediated communication (CMC) "that might predict the perception of CMC" as an alternative to face-to-face interaction for student-teacher and student-student interactions via computer for student computer conferencing. The study looked at 71 students who, while in a variety of courses, also participated electronically in the COMCONF conference, "a student CMC conference." The five professors involved in the study administered two questionnaires to the students, one early in the term and the second toward the end of the term, which included questions about how CMC was perceived by these students. From the responses, the researchers concluded that student acceptance of CMC for student conferences "appears most predictable by how interesting it makes the regular university course involving it when first tested." In a sense, did the use of CMC enhance their in-class experiences? Also, initial positive student attitudes toward CMC were connected with positive attitudes later. This study included student computer experience questions, and it is worth noting that in this pool of 1997 subjects, only 24% "self-reported as having a high level of experience with computers." reported high computer experience.

**KEYWORDS:** distance, computer, computer-mediated-communication, classroom, discussion, networked, pedagogy, questionnaire, data, CMC, mediated, computer-mediated, FTF-online

**Hawisher, Gail E.**

Electronic meetings of the minds: Research, electronic conferences, and composition studies.

In Hawisher, Gail E.; Paul LeBlanc (Eds.), *Re-imagining computers and composition: Teaching and research in the virtual age*; Portsmouth, NH: Heinemann (1992), 81-101.

While this foundational piece of the computers and composition literature does not directly compare different modalities, it provides a primary view of electronic conferencing and dialogue, naturally contrasting these forms of communication with onsite talk. Hawisher provides core—and oft-cited—ways of thinking about the textual communications that now comprise so many online and hybrid courses. She explores connections between social constructivist theory and the electronic conference and says that, simply, electronic conferences focus attention on writing while also encouraging a sense of community, equitable participation, and a decrease of leader-centered communication. She analyzes some potential issues with this form of classroom experience, including flaming, communication anxiety, and sensory overload. Studies that look at the differences between modalities based on the textuality of those environments often track back to Hawisher’s chapter.

**KEYWORDS:** review-of-scholarship, teleconferencing, teleconference, networked, synchronous, online, distance

**Johnson, E. Janet; Karen Card**

The effects of instructor and student immediacy behaviors in writing improvement and course satisfaction in a Web-based undergraduate course

*MountainRise* 04.2 (2008)

<http://mountainrise.wcu.edu/index.php/MtnRise/article/view/81/36>

Through an online technical writing course, this study examines “one of the most important factors of student motivation and success online”: instructor contact and peer interaction. Using a case-study approach and qualitative and quantitative data, the authors study instructor and student course behaviors, finding that immediacy and social presence contribute to student achievement and course satisfaction. Interestingly, the authors say instructor “immediacy behaviors” (defined as “verbal and nonverbal actions that communicate warmth, closeness, and availability for communication”) have been investigated while such student behaviors attract less attention because “traditional learning has been instructor-centered” (3). Immediacy online involves chronemics or temporal immediacy, “a powerful immediacy behavior in the form of nonverbal communication—the way we structure and use time in a positive way in a Web-based environment” (2). Here, temporal immediacy refers specifically to instructor and student email responses, supportive messaging, and feedback and responding to writing assignments in a timely way, emphasizing collaboration and dialogue. The researchers look at 24 students to see writing improvement and course satisfaction based on instructor and student immediacy behaviors and measured in various ways, including a Social Presence Indicators Instrument, an anonymous survey, and student self-evaluations. The researchers observe a variety of immediacy



behaviors, seeing connections among these behaviors and findings that all students felt their writing had improved and were satisfied with the course. The instructor provided detailed, corrective-type instruction on student written work, and students identified the detail and timeliness of these responses as key to their improvement, as was immediacy behaviors through peer writing groups. Students also found technology to be a minimal impediment, if at all: “they did not miss the face-to-face experience for this particular course and were not frustrated by the technology” (11). “The instructor’s management of the temporal aspects of the course” was a focus: “Students indicated in their self-evaluations that prompt feedback, frequency of interactions, and instructor availability affected them positively, leading to course satisfaction” (12). The instructor worked hard in this course, modeling immediacy behaviors all term and spending “an inordinate amount of time [...] to ensure that students make tangible progress in developing better writing skills” (17).

**KEYWORDS:** immediacy, Social Presence Indicators Instrument, behavior, technical-writing, techcom, online, chronemics, response, satisfaction, distance-learning, data, student-opinion, gain, student-satisfaction

**Means, Barbara; Yukie Toyama; Robert Murphy; Marianne Bakia; Karla Jones**

Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies

Washington, D. C.: United States Department of Education; Office of Planning, Evaluation, and Policy Development (2010)

<http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>

While not writing-course specific, this oft-cited meta-analysis reviewed more than 1,000 “empirical studies of online learning” from 1996 through July 2008. The authors looked through these studies to identify those that “contrasted an online to a face-to-face condition” and measured student-learning outcomes in a study design that provided enough information “to calculate an effect.” The authors find 50 independent effects that could be subjected to meta-analysis, and through that analysis found that “on average, students in online learning conditions performed modestly better than those receiving face-to-face instruction.” However, the study indicates that the largest advantages were found by those students taking blended or hybrid courses. Because blended or hybrid conditions include additional learning time and instructional elements not received by face-to-face students, the authors said “the positive effects associated with blended learning should not be attributed to the media, per se.” The authors also found that the vast majority of this work did *not* focus on K-12 students, a seemingly understudied population. A good summary of this study was written here in *Inside Higher Ed* (<http://www.insidehighered.com/news/2009/06/29/online>); this article also includes an active post-article dialogue about the study’s findings.

**KEYWORDS:** hybrid course, blended-course, meta-analysis, FTF-online, distance, data, review-of-scholarship

**Mehlenbacher, Brad; Carolyn R. Miller; David Covington; Jamie Larsen**

Active and interactive learning online: A comparison of Web-based and conventional writing classes

*IEEE Transactions on Professional Communication* 43.2 (2000), 166-184  
<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=843644>

This reference-packed study compares students enrolled in two Web-based sections of a technical writing course with students enrolled in a “conventional” version of the class. This was at a time, as the authors note, when people still thought of Web learning in contrast to “cassette-, video-, and television-based distance education.” Using various measures, the researchers found “no significant difference in student performance” between the two modalities, but they did find “intriguing relationships” between students’ *prior* knowledge, attitudes, and learning styles and the Web-based writing environment. In particular, “reflective, global learners” performed better online than “active, sequential learners,” although they found no such difference in conventional courses. They reach a conclusion that speaks widely to comparative efficacy efforts: “Our study highlights the complexity of effective teaching and the difficulty of making comparisons between the online and the classroom environments. In particular, we maintain that the transfer of active learning strategies to the Web is not straightforward and that interactivity as a goal of instructional website design requires significant elaboration” (166). They suggest that continued research about online course design must be linked with understanding of student learning traits, styles, and predilections; they particularly emphasize studying online interactivity. Interestingly, in their introduction, the authors make an overt nod to compositionists’ use of technology, saying, “Writing instruction has welcomed the challenges and the promises of Web-based teaching as much as any field.”

KEYWORDS: technical-writing, techcom, FTF-online, no significant difference, interactivity, distance-learning, data, review-of-scholarship, teacher-student

**Miron, Gary; Jessica Urschel**

Understanding and improving full-time virtual schools: A study of student characteristics, school finance, and school performance in schools operated by K12 Inc.

Boulder, CO: National Education Policy Center (2012)  
<http://nepc.colorado.edu/publication/understanding-improving-virtual>

This research brief is included because it makes an effort to look broadly at a major distance learning entity as a whole or system rather than looking at specific course outcomes. The researchers investigate K12 Inc., a major private education management organization. This lengthy study analyzes student characteristics of K12 students and revenues and expenditures, and it also looks at a variety of school performance outcomes that were deemed troubling in comparison with other educational providers, including low rates of Adequate Yearly Progress, low school performance ratings by state authorities, and low levels of math and reading assessments. The authors make a series of recommendations based on these low performance

outcomes, including revising performance accountability measures for virtual schools and revising financial oversight procedures; even considering that for various reasons accountability measures for traditional schools may not be valid for virtual providers, the authors also recommend that policymakers “slow or put a moratorium on the growth of full-time virtual schools.”

KEYWORDS: school, online, for-profit, distance, K12 Inc., cost-analysis, outcomes, data

**Sapp, David; James Simon**

Comparing grades in online and face-to-face writing courses: Interpersonal accountability and institutional commitment

*Computers and Composition* 22.4 (2005), 471–489  
<http://dx.doi.org/10.1016/j.compcom.2005.08.005>

Citing low retention rates in many online writing courses, the authors “extend this discussion” by looking at how retention is connected to student work and by comparing grades in online and face-to-face undergraduate writing courses. They studied nine sections of two writing courses—a first-year composition and business-writing course—that were offered in online and f2f formats at their institution. They find striking differences in the completion rates between the online and f2f versions of these courses as well as in grades; they use the phrase “thrive or dive” to describe student performance in the online courses, as a high percentage of online students fail or drop compared to the f2f courses. Asking a series of teaching-related questions about these courses, the authors determine grade and completion discrepancies are not due to different faculty or approaches. Sapp and Simon also survey the students in these courses, and their findings are consistent with other research, for instance showing students underestimate online course workload and that online students have trouble connecting with teachers and, even more so, fellow students. They recommend that teachers must develop an interpersonal rapport with online students: “In this sense, education—even online education—is (and must be) more than the delivery of content; it also is the purveyor of the social skills necessary for living satisfying and productive personal and professional lives, for interacting and working with others” (478). Building from their findings and other work, Sapp and Simon offer seven specific teaching recommendations: 1) expand orientation and ice breaking sessions; 2) build in face-to-face meetings; 3) build in accountability in course performance and grading, both for students and teachers; 4) incorporate real-time online activities; 5) be vigilant in student retention efforts; 6) insist upon institutional support; 7) maintain sensitivity to diversity issues as mediated by technology. They conclude that grading consistency is a challenge, and online teachers must work hard to prevent this “thrive or dive” phenomenon.

KEYWORDS: distance, FYC, pass-rate, failure, FTF-online, paper-screen, contrast-group, data, needs-analysis, teacher-student, interpersonal, academic-success, grades, persistence, online, bizcom, orientation, institutional

**Sener, John**

Escaping the comparison trap: Evaluating online learning on its own terms

*Innovate* 01.2 (2004)

<http://www.innovateonline.info/index.php?view=article&id=11>

While not a comparative study, Sener offers support for those frustrated with forced—and perhaps unfair—comparisons between face-to-face and online courses; for example, accreditors giving higher “scrutiny” to online courses instead of f2f courses. Sener describes the various problems with experimental or even quasi-experimental issues when trying to establish a “ballpark equivalence.” For instance, difference between courses may have more to do with instructor experience than delivery mode. Instead of the comparative approach that has lingered for so long, Sener recommends other ways of evaluating online learning in its “own frame of reference,” citing previous work; these include looking at student traits that lead to success, using systems dynamics and discourse analysis as research methods, and using “social presence theory.” For those looking to avoid the “comparison trap,” Sener’s article is a good place to start.

KEYWORDS: online, accreditation, distance-learning, research-method, FTF-online, equivalence

**Sussman, Stephen; Lee Dutter**

Comparing student learning outcomes in face-to-face and online course delivery

*Online Journal of Distance Learning Administration* 13.4 (Winter 2010)

[http://www.westga.edu/~distance/ojdl/winter134/sussman\\_dutter134.html](http://www.westga.edu/~distance/ojdl/winter134/sussman_dutter134.html)

Sussman and Dutter focus on onsite and online sections of an undergraduate social science course, and the authors say they look at real-time comparative data, but not with the intention of proving one modality superior. In comparing numerical scores for a paper assignment and final course grades, the authors found “essentially no difference” in the two types of courses in terms of student outcomes. The authors heavily qualified their results, pointing out the difficulty of conducting such an experiment in a truly experimental setting. Also, while the overall results based on the paper assignment and final course grade reinforce the idea of no significant difference, the researchers took an interesting approach by disaggregating the assessment scores, discovering a great disparity of very high and very low scores. This discovery led them to believe that a “form of selection may be operating” in which some students are well prepared for the online course and some are not, and there are extreme results which are masked when aggregating scores. Because this study focuses on a high-weighted (24% of the total course grade) issue paper, while the authors focused on a social science course it still provides writing researchers and teachers with a way of thinking through the overall place and value of writing assessments in outcomes for students in electronically mediated courses.

KEYWORDS: FTF-online, no significant difference, assessment, distance-learning, social-science-course, quality, grade, data, high-low

**Wang, Qiyun Wang; Huay Lit Woo**

Comparing asynchronous online discussions and face-to-face discussions in a classroom setting

*British Journal of Educational Technology* 38.2 (2007), 272–286

The authors wanted to compare differences between two types of conversations that took place in a classroom space: In-class asynchronous online discussions (with computers in a classroom) and face-to-face discussions. In a group of 24 graduate students, Wang & Woo conducted these types of discussions and then looked for differences using observational notes and student reflections. The researchers created a variety of themes for evaluating the pros and cons of each conversational modality. The top five themes that had major differences between face-to-face and in-class asynchronous online discussions were atmosphere, responses, efficiency, interactivity, and communication. Of these, only “atmosphere” (defined in the study as “authenticity, comfort, aggression, equal access and dominance”) favored the online discussions. The researchers, however, were not comparing students in a distance learning environment; again, these students were all in the same room for each type of discussion, leading to easy advantages for face-to-face conversations in terms of response time and efficiency. They also provide suggestions on how both types of discussions can be better designed, although the online discussions were considered in terms of students being in an actual space together, not truly in a distance learning situation.

KEYWORDS: asynchronous, discussion, online, FTF-online, distance, data, graduate, conversation-analysis

**Western Interstate Commission for Higher Education**

No significant difference (2001-)

<http://www.nosignificantdifference.org/>

This is a key place to start when asking questions comparing learning modalities. This Website was started as a companion to Thomas L. Russell's *The No Significant Difference Phenomenon* (2001, IDECC) and documents hundreds of studies that find no significant difference in educational outcomes based on different types of course delivery, ranging from correspondence courses to face-to-face to online. While primarily serving as a searchable database of studies, in an effort to be comprehensive in terms of educational efficacy, the site also lists studies that *do* show significant difference in educational outcomes. This is a valuable site for research about comparisons of different educational modalities and outcomes.

KEYWORDS: no significant difference, online, distance, bibliography, annotated, FTF-online

**Xu, Di; Shanna Smith Jaggars**

Adaptability to online learning: Differences across types of students and academic subject areas (Working Paper No. 54)

Community College Research Center (February 2013)

<http://ccrc.tc.columbia.edu/media/k2/attachments/adaptability-to-online-learning.pdf>

This study examined the “adaption challenge” of online learners by looking at nearly 500,000 courses taken by over 40,000 community and technical college students in Washington State. Xu and Jaggars examine “how well students adapt to the online environment in terms of their ability to persist and earn strong grades in online courses” relative to onsite courses. The authors attribute the variety of results for online learners found in other studies to certain student populations and subject areas, and they add that student characteristics have been used in prior studies as “straightforward predictors” rather than as potential influences on learner adaptability. Their detailed investigation of these courses and students shows many things, including that online courses tend to be more popular in the arts and humanities and less so in the natural sciences. In general, they find that student persistence is lower in online courses as is average final grade, and these differences were acute for certain types of students: “Overall, the online format had a significantly negative relationship with both course persistence and course grade, indicating that the typical student had difficulty adapting to online courses [...] Specifically, we found that males, Black students, and students with lower levels of Academic preparation experienced significantly stronger negative coefficients for online learning compared with their counterparts, in terms of both course persistence and course grade” (23). They suggest that performance gaps between groups may be exacerbated online, with the troubling implication “that the continued expansion of online learning could strengthen, rather than ameliorate, educational inequity” (23). Interestingly, older students may not perform as well online as their younger counterparts but they seem to adapt better. They also find that different types of students tend to “cluster” into subject areas, with English and social sciences seeming to attract higher proportions of “less-adaptable students.” They conclude by suggesting four improvements to institutions’ online courses: screening, scaffolding, early warning, and wholesale improvement.

**KEYWORDS:** computer, CMC, contrast-group, computer-mediated, distance, FTF-online, undergraduate, two-year, online, Washington State, academic-success, socioeconomic status, age, data, minority, two-year, vocational, GPA, peer effects

**Yagelski, Robert P.; Jeffrey T Grabill**

Computer-mediated communication in the undergraduate writing classroom: A study of the relationship of online discourse and classroom discourse in two writing classes

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While this study does not compare efficacy among modalities, it presents in-depth research about how online and f2f communication complement and differ from each other. Yagelski and Grabill start with the premise that computer-mediated communication (CMC) is viewed as beneficial to



“our collective understanding of the specific uses and effects of these technologies on instruction and learning in traditional classroom settings is limited” (12). From there, they inquire about the effects of CMC and connections between CMC and traditional f2f communications in two undergraduate writing-intensive courses that feature CMC-supplemented conventional in-class conversations: What was the nature of student participation in course-related online discussions? What factors might have affected student participation in course-related online discourse? How did online discourse relate to f2f discourse? Might perceptions of CMC affect student online participation? Quantitative and qualitative analysis of the results of field notes, interviews, surveys, and monitoring of online discussions showed that student participation in online discussions related “in complex ways” to factors associated with f2f class discourse, such as how the course was structured; how CMC was managed, evaluated, and presented by teachers; and students’ perceptions of the role of electronic conversations and their importance in the class. The authors say their findings complicate some previous studies about the equitable nature of CMC, although they corroborate other findings about how factors such as grading, assignment structure, and instructor participation influence student participation. The study found that “the nature of students’ online participation is a function of other complex and sometimes conflicting factors related to students’ sense of the purpose(s) of CMC within a mixed mode course and, perhaps most intriguing, to their positions as undergraduate students in traditionally organized university courses...[the online environments in these courses] are complex discursive spaces that can be as difficult and complicated for students to negotiate as the more traditional classroom—perhaps more so” (35).

**KEYWORDS:** computer, CMC, contrast-group, gain, data, mediated, computer-mediated, undergraduate, distance-learning, participation