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Addressing the Decline of Academic Performance Among First-Year Composition Students: A Usability Analysis of Two Important Online Resources

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ABSTRACT

An increasing number of students entering college lack the academic skills necessary to perform well at the college level, forcing professors and academic institutions to lower standards. Students approach higher education as a commodity, and as consumers they assert their desire for easier course work by giving poor evaluations to instructors whose courses they find too demanding or difficult. Eliminating student evaluations is one necessary change that will help reverse declining standards in higher education and increase performance; providing effective venues for supplemental instruction is another. Teaching basic writing skills in freshman composition courses would waste valuable instruction time that must be spent on higher-order concerns, such as critical thinking, abstract reasoning, essay development, and research skills. Online writing labs offer lower-order instruction in grammar, punctuation, syntax, and style for students at any level, as do the learning programs that accompany composition textbooks and handbooks, yet these resources are under-utilized by students who need the most help. Usability studies would reveal site-specific reasons students avoid or abandon them. This paper includes an initial view of two online writing resources from the perspective of usability: what works about the design and functionality, and what most likely does not.

CHAPTER 1   STUDENT COMPETENCE AND SUPPLEMENTAL RESOURCES

The Familiar Lament

Whether muttered or whispered or bellowed in frustration, this complaint from professors has been echoing through the halls of colleges and universities for over a century: "The kids today can't write!" As early as 1896, Harvard professors complained about the poor writing quality of their freshman class, calling for more stringent instruction at the preparatory school level (Brereton 45). More than one hundred years have passed, yet the problem has not been solved: teachers unfailingly find each incoming class more academically impoverished than the previous one. In the digital age, students' preoccupation with social networking and bad habits from texting certainly contribute to poor writing. But adults throughout history have been consistently alarmed by the behavior of the younger generation, predictably finding them ill mannered, arrogant, immodest, lazy, and reckless. The following quote, although its origin is uncertain, has been widely circulated on the internet and attributed to Socrates: "The young people of today think of nothing but themselves. They have no reverence for parents or old age. They are impatient of all restraint. They talk as if they alone knew everything and what passes for wisdom with us is foolishness with them." Could the professors' perennial complaint be dismissed as merely

one variation of this age-old curmudgeonly perception? To some extent, yes, but not entirely.

Perhaps in years past the "shortcomings of youth" were more perceptual than actual, but research over the past several years has in fact shown a measurable decline in student abilities, notably, in reading and writing. There has been a concomitant increase in time spent on the computer as well as an increase in the popularity of social networking sites among all ages and grade levels. Certain studies are more reassuring: the decade-long Stanford Study of Writing, begun in 2001 under the direction of Andrea Lunsford, indicates that Facebook, the "sound-byte" oriented Twitter with its 140-character entry maximum, and other social networking tools have *not* caused the death of the written word, as some educators and pundits had gravely predicted, but that students are writing more than ever; in fact, they're writing far more than previous generations. But what about the quality of this writing? Lunsford describes student writing today as "different," as it is, for example, more immediate and contains much greater awareness of audience from that of earlier generations. An analysis of student papers shows that Stanford students today generate about three times more prose than students from the mid 1980s, and that the mistakes differ from what they were twenty years ago (Haven). Yet this research project, one must remember, studies Stanford students, and one can safely assume the quality of their writing is not as abysmal as much of the writing found in college classrooms of lesser selectivity and prestige. Students in

my classes, I've found, frequently write more pages than I ask them to, yet this writing is often simplistic, illogical, or rambling, and infused with middle school-level mistakes. Whether uttered by a professor at a top-tier school or one at a lesser institution, the perennial complaint about freshman writing (which includes not only grammar, but also reasoning and critical thinking) has always been based on widely divergent standards. If lesser-ranking schools must further lower their standards (in math and science as well as English) to enroll new students and then to retain them, it's not difficult to imagine the eventual decline of American achievement and prosperity.

But it's not as if complaints about the skill levels of graduating high school students entering college have fallen on deaf ears. As Lee Campbell and Debra Jacobs detail in "The Standards Movement and the Commodity of American Standardized English," the standards movement that began in earnest in the early 1980s has only gained in momentum since then, ever more specifically and rigorously defining minimal competencies and the student outcomes that are to demonstrate that students possess them. If anything, it ought to be the case that the competencies of first-year college students have increased in academic areas overall, writing included. But this is not the case.

It certainly appears that at an administrative level, colleges and universities consider entering students to be sufficiently prepared for college level work. Basic writing programs are being eliminated, relegated to community colleges or cut altogether. Yet as Nicole Pepinster Greene and Patricia J.

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McAlexander indicate in their preface to *Basic Writing in America*, "the threatened elimination of basic writing programs in America's universities and four-year colleges" is directly at odds with "the students' need for such programs" (x). Along with the disappearance of basic writing programs, the amount of instructional focus on basic compositional skills in the first-year composition curriculum has likewise diminished. Teaching basic compositional skills *would*, in fact, supplant valuable instruction time that should be spent on higher-order concerns, such as critical thinking, research skills, and essay development for academic purposes.

But graduate assistants and adjunct professors who teach first-year writing courses continue to be dismayed about the extent to which their students are underprepared to write college-level papers; many need some degree of basic writing instruction or the remedial programs that are no longer offered. New teachers are also surprised to find that most of the students in their classrooms have very poor reasoning skills and precious little cultural knowledge. Despite twelve years of schooling, these new college students have not quite grasped the logic that underlies coherence and organization in essay writing, nor have they mastered the conventions of standardized written English. Of course, in a teaching load of forty to eighty to a hundred students, a few good writers will emerge– some astonishingly and delightfully good. But many write so poorly that a colleague and I once joked about reinstating the missing "E" in the A–F grading scale, which we proposed would stand for "How did this kid Ever get into

college??" The first question that comes to mind is: why have high school standards dropped so low that these students can graduate? And the second: if so many students need remedial writing instruction, why, then, are they not funneled into such courses? Unfortunately, those answers are to be found in complex political, social, and economic forces affecting both students and schools–primary, secondary, and post-secondary–that are not easy to rectify.

Project Overview: The Need to Assess the Usability of Supplemental Instructional Resources

Many students admitted to four-year colleges and universities need supplemental instruction in writing; this is the reality. To provide this help with minimal classroom teaching time, instructors may direct struggling students to the writing center; non-native English speakers have the additional option of going to the ESL center for help with their papers. But these valuable resources entail staffing and scheduling constraints that hinder many students, particularly those with jobs or children, from taking advantage of them. Class size restricts teacher-student writing conferences during class time to a mere ten or fifteen minutes once per semester. However valuable these one-on-one consultations are, teachers and writing center staff cannot provide enough individualized instruction to match the growing need. Fortunately, a proportion of the deficiencies in student writing can be addressed in other ways.

Besides the writing center, there are two other resources that teachers can recommend or assign to students: OWLs (Online Writing Labs), and online instructional programs included with the purchase of handbooks and composition textbooks. These resources offer information and tutorials on grammar, punctuation, and syntax, as well as supplemental instruction on many other important aspects of writing, such as the writing process, organization, and the perpetually bedeviling thesis statement. But students (and teachers) will not profit from them unless the instruction provided is effective: studies of their effectiveness are warranted, and usability studies are a good place to start. Like any website, OWLs and textbook companion programs will be more or less effective depending on whether or not students find them comprehensible and relatively easy–or at least not painful–to use. Analysis of a preeminent OWL and of the companion program to a bestselling handbook from the standpoint of their usability will reveal strengths and areas that need improvement. Improving usability is an important and necessary first step toward increasing the chances that students will benefit from the instruction these kinds of online venues offer.

Chapter One explores the perception that students are notoriously bad writers. Chapter Two shows that this observation is not just based on anecdotal accounts, but that there are good reasons for arriving at this claim. The third chapter makes a case for the value of using online instructional resources and presents an overview of usability principles. The fourth chapter analyzes Purdue's OWL from the perspective of usability–what works about the design, content,

and functionality, and what most likely does not–and the fifth does the same for

Pearson's MyCompLab. Chapter Six recaps and concludes the paper, and offers a

few suggestions.

CHAPTER 2   THE PERENNIAL LAMENT IN A NEW MILLENNIUM

A Cursory Look at the Decline of America's Academic Performance

America's standing in international ratings for academic performance has

plummeted, not only in math and science, but in reading and writing as well.

Professors across the curriculum lament the increasing numbers of students who

enter college ill prepared for writing college-level papers. In a May 2008 article in

The Chronicle of Higher Education, Marty Nemko states: "Today, amazingly, a

majority of the students whom colleges admit are grossly underprepared. Only

23 percent of the 1.3 million high school graduates of 2007 who took the ACT

examination were ready for college-level work in the core subjects of English,

math, reading, and science" (17).

This sad situation is not a recent phenomenon, but the result of a gradual

but steady decline attributed to a variety of sociological factors, most notably the

number of hours students spend in front of the television and, recently, the

internet. In his acerbic but thoroughly-researched *The Dumbest Generation: How

the Digital Age Stupefies Young Americans and Jeopardizes Our Future*, Emory

University English professor Mark Bauerlein reports the results of several national

surveys that leave little room for doubt about at least one cause of America's

mediocre global standing: the 2006 *High School Survey of Student Engagement*,

based on responses from over 81,000 students in 110 schools in 26 states, reveals that over 90 percent spent *less than five hours* a week on homework, and 55 percent spent *less than one hour*. The U.S. Department of Education's *NAEP 2004 Trends in Academic Progress* surveyed seventeen year-olds about how many hours they spent on homework the night before: 26 percent said they didn't have any homework, 13 percent said they didn't do the homework they were assigned. Of those who did do homework, 28 percent spent less than an hour, and 22 percent spent between one hour and two. Only 11 percent spent over two hours on their homework (Bauerlein 4-5). Shocking? Yes. Deplorable? Absolutely. And the news only gets worse.

One might speculate that high school students who continue on to college would begin to take homework more seriously, yet this is sadly not the case. While college professors estimate that students should spend about 25 hours per week studying, the 2006 *National Survey of Student Engagement* revealed that a mere 11 percent actually devoted that much (self-reported) time, while 26 percent spent between six and ten hours, and 18 percent only one to five (Bauerlein 5-6).

Keeping in mind that these percentages reflect time studying for *all* classes, including tough, fact and formula-based courses such as math and chemistry, it's safe to surmise that college students prioritize their homework and spend precious little time on English, assuming they can manage at least a B without much effort, since that was their experience in high school. First-year

students who did well in high school English are often taken aback by lower-than-expected assessments of their first college essay. The rude awakening is even worse for those who enrolled in advanced placement (AP) courses but, for whatever reason, didn't test out of the first-year composition classes. Over the last decade, it has become commonplace for high schools to offer AP courses in various subjects, and English is among the most commonly offered. Those students who did fairly well in the regular classes were not comparing their performance to the higher achievers (who were sequestered in the AP courses), and therefore enter college with an unrealistic perspective on their abilities.

Advanced Placement Programs and the
Changing Population of First-Year Composition

A brief look at some of the statistical data on AP credit strongly suggests that the perception many first-year composition instructors have about the overall decline in the compositional skills of first-year students is likely valid. Consider the table below, which was taken from the College Board's *Advanced Placement Program National Summary Report, 1999–2008*.

TABLE 1: Number of students taking AP examinations

Number and percent change in the number of students taking Advanced Placement (AP) examinations, by race/ethnicity: 1999–2008

Year 1999	Total[1]	White	Black	Hispanic	Asian	American Indian/ Alaska Native
2000	747,922	504,600	36,158	74,852	85,756	3,584
2001	820,880	549,065	40,078	86,018	92,762	3,472
2002	913,251	607,816	45,271	98,495	102,653	3,896
2003	998,329	660,225	51,160	114,246	111,704	4,530
2004	1,081,102	702,489	57,001	130,042	121,038	4,974
2005	1,197,439	762,548	67,702	148,960	135,815	5,654
2006	1,312,523	816,301	79,171	166,197	147,381	6,449
2007	1,432,169	890,169	92,574	188,323	162,505	7,084
2008	1,546,020	949,986	108,545	209,721	177,198	7,750
% change 1999 to 2008	125.4	113.1	249.9	233.7	133.5	147.1

[1] Total includes other race/ethnicity categories not separately shown. NOTE: Data reported are for all students who completed an *Advanced* Placement exam. The College Board collects racial/ethnic information based on the following categories: American Indian/Alaskan, Asian/Asian American, Black/Afro-American, Latino (Chicano/Mexican, Puerto Rican, Other Latino), White, and Other. Black refers to test-takers who identified themselves as Black/Afro-American, and Hispanic refers to the sum of all Latino subgroups. Race categories exclude persons of Hispanic ethnicity.

(National Center for Education Statistics)

The breakdown of numbers by race/ethnicity, while certainly valuable

information, is not central to my purpose here, which is simply to establish the

tremendous increase year after year since 1999 in the number of students

overall who have taken AP examinations. In 2005, well over one million students in the United States took at least one AP exam, representing almost 23 percent of all high school students (College Board, 2006). Just three years later, the total number grew by about 350 thousand, more than a 22 percent increase. In less than a decade, the total number of students taking AP examinations has increased by 125 percent.

Although I was unable to locate this kind of specific nation-wide statistical data for AP exams in English (the College Board's national reports simply indicate that AP exams in English are among the most frequently taken), reports from individual states consistently show that the exam in English Language and Composition is among the top two or three most popular AP exams taken, and it is often the top. A 2011 report prepared by the state of Washington's Higher Education Coordinating Board, for example, shares the following information:

> In 2010, more than 28 percent of Washington high school seniors had taken an Advanced Placement (AP) Exam during high school. This is more than double the percentage of all seniors who took one in 2001, when the program was first offered in the state. The 28 percent participation rate was very close to the national average of 28.3 percent for 2010. (HECB 1)

The following table, copied from the report, presents numerical information about the tests most frequently taken and the percentage of tests that scored a "3" or higher:

TABLE 2: AP tests taken most frequently

Table 1: AP tests taken most frequently by Washington's 2010 senior class during high school

Subject	# Taking Test	% Scoring 3+
English Language and Composition	7,104	61%
U.S. History	6,627	52
English Literature & Composition	6,163	58
Calculus AB	5,085	60
US Government and Politics	3,661	63
Biology	2,753	45
World History	2,511	60
Statistics	2,452	56
Chemistry	1,808	49
European History	1,703	53
Physics B	1,430	61
Environmental Science	1,426	55
Psychology	1,350	68
Spanish Language	1080	63
Calculus BC	1,011	76

As the example of students in the state of Washington indicates, the majority of students who take AP exams pass them with a score of at least a 3. The 2010 national report from the College Board states, "Overall, nearly 60 percent of all AP test takers receive AP scores of at least 3" (College Board 2011).

The significance of a score of 3 or higher for first-year composition is that a it will provide a student with credit at most colleges and universities for the first semester course in the given subject. At the Florida research-one university where I teach first-year composition, a 3 will give the student credit for ENC 1101, while a 4 or 5 will provide credit for both 1101 and 1102, the entire two-semester sequence of first-year composition.

With more and more students entering colleges and universities with their requirements already met, it's clear that the population of students in first-year composition classes has changed. What's more, it's clear that such change is ongoing. During the 1999–2000 academic year, 13,253 high schools offered AP programs. During 2008-2009, based on the most recent figures available, 17,861 high schools had them (College Board, *Annual AP Program Participation 1956–2010*). The following table reflects that the state of Florida ranks as 12th in the nation in terms of the percentage of Florida high schools that offer AP programs.

TABLE 3: Florida's ranking among states offering AP courses

Rank	Fig.	Description	U.S. Avg	High / State	Low / State	FL
13	4.1a	Public High Schools Offering Advanced Placement (AP) or International Baccalaureate (IB) Courses in the Four Core Subject Areas	34.8%	67.3% / MD	4.8% / ND	48.8%
12	4.1b	Public High Schools Offering Advanced Placement (AP) in the Four Core Subject Areas	33.9%	67.3% / MD	4.8% / ND	48.6%
4	4.1c	Public High Schools Offering International Baccalaureate (IB) Courses in the Four Core Subject Area	2.8%	9.9% / SC	0.0% / RI	7.4%

* Indicator data not available for all states

(College Board, *Completion Agenda*)

It should be noted that students do not have to participate in AP programs to take an AP exam (and may sidestep the analytical and critical thinking skills developed in first-year composition). However, the strong correlation between the dramatic increase in the number of AP exams taken each year and the number of high schools that offer the program unmistakably indicates that as more schools offer such programs, even more students will take and pass the exams, presumably with the English exam remaining among the most popular.

The New Population and the Demands of First-Year Writing

In addition to the increased enrollment of foreign-born students for whom English is a second language, there is little question that the dramatic increase in the number of students who bypass first-year composition with AP credit has changed the population the classroom. One might argue that the absence of higher achieving students from first-year courses has no bearing on the *preparedness* of the students remaining; but the point to consider is how the change in the classroom population affects instruction, expectations, and outcomes. While many students have mastered high school's five-paragraph essay and write adequate, if uninspired, prose, an alarming number of first-year students submit papers containing a panoply of errors: cock-eyed grammar; haphazard punctuation; tediously simplistic or maddeningly convoluted sentence structure; meandering paragraphs; puzzling vocabulary choices; slipshod reasoning; and often a thesis, if there is one, that does nothing other than state the obvious.

The population change affects teaching in other ways. Each and every underprepared student on a teacher's roster represents extra time that takes away from more advanced interaction. Additionally, for the teacher, time responding to first drafts is more far more laborious, grading more tedious. Classroom time in college should be spent on higher-level skills, such as thinking critically about social issues or learning how to construct a persuasive argument; it's unfortunate–perhaps even foreboding–that critical thinking time has to be sacrificed because students still don't understand what's wrong with a sentence fragment or how they're supposed to know where the commas go.

At the same time that the population of the class has been changing, the first-year composition curriculum has also been changing—but not in light of the population change. A dissonance has arisen: while greater numbers of increasingly underprepared students are being admitted, the curricula of first-year composition programs are continually being altered so as to reflect the greater intellectual sophistication that the given university and/or the given accreditation board wants to see. When English departments make course requirements more rigorous, instructors not only must try to motivate their students to accept a heavier course load than they bargained for (and which they will complain about), but also have the additional burden of trying to motivate their students to learn–on their own time–all those dreary grammar and punctuation rules that escaped their attention in high school.

FYC programs have long been viewed as providing writing instruction that

serves the larger academic mission of colleges and universities. The first-year

program at the research-one university where I teach has been specifically

designed to prepare students for the academic writing that will be required in

their first four years of college. The FYC program emphasizes that students learn

research skills in order to find support for their opinions, to correctly cite sources,

to prepare Works Cited pages and annotated bibliographies. The program is also

intended to foster critical thinking and analysis—a major departure from the

"knowledge in–knowledge out" and expressivist writing they have done in K–12.

The transition from high school to college writing turns out to be difficult for

most first-year students, not only those entering state universities and colleges,

but even for those entering Ivy League schools. Nancy Sommers, Director of

Expository Writing at Harvard who has tracked the progress of Harvard's

incoming freshmen for several years, declares, "Writing shows students the

distance they need to leap, the thresholds they need to cross. . . . Writing gives

students their 'Dorothy moment,' that feeling of not being in Kansas anymore"

(Sommers qtd. in Shen).

As is the case in many non-Ivy League colleges across the country in

today's tenuous economy, students at my institution may have an especially hard

time meeting the requirements of first-year composition. Many work ten or

twenty hours a week, and some up to forty; they consequently do not put in the

time they should to research, ponder, write a first draft, re-evaluate, write a

second draft, consider feedback, learn from their mistakes, then rewrite the

paper yet again. For increasing numbers, with America's changing demographics, English is not their native tongue and they have additional difficulties with grammar and idioms. But the problems are broader, and far more serious, than factors such as part-time jobs and ESL issues account for.

Students are *resistant* to college pedagogy—not just that of first-year composition, but that of their other courses as well. They have a narrow, naïve view of what they think they should be required to learn about a subject—whether that subject is English or engineering, calculus or chemistry—and they abhor "wasting time" on what they consider irrelevant. Most skim through reading assignments while multitasking, if they do the reading at all. They certainly do not understand writing as a process, one that involves revision of thought as well as of words. Proper spelling, capitalization, and punctuation–conspicuous by their absence in text messaging–must strike them as archaic given their resistance to mastering these details of communication. Although they comply when their drafts will be graded, they balk at multiple-draft requirements, preferring to allocate a block of time to writing the paper once from start to finish and then being done with it. Revising is tedious, boring. It's clearly difficult for them to force themselves to revise what *feels* like a project they've completed. Revising requires more work for less satisfaction because it's still the same paper, a paper on a topic they've already tired of.

Although resistance is hardly new (Durst, Brooke, Nathan), technology amplifies this problem by delivering, right to their metaphorical doorstep, an

infinite number of distractions that were not available to previous generations. YouTube videos provide innumerable opportunities for instant entertainment, while Facebook and various other social networking sites and text messaging keep them irresistibly preoccupied with updates on their friends. An unending supply of mindless but addicting online games is a click away on their laptops, iPods and smart phones. With diversion available to them 24 hours a day, they have little tolerance for boredom and an increasingly hard time staying on task with the more complex thinking required of them by academia. But again, the problem is even deeper and broader than opportunities for diversion account for.

In *The Dumbest Generation*, Bauerlein contends that social networking technology has enabled the natural adolescent preoccupation with peer approval to explode into a national obsession, one that supplants interest in cultural, social, or civic matters, literally jeopardizing our democracy. Maggie Jackson, in *Distracted: The Erosion of Attention and the Coming Dark Age*, laments the American proclivity for the simple rather than the complex, the superficial for the deep, and the expedient for the commendable, inclinations that are increasingly the norm in our consumerist society. Like Bauerlein, Jackson predicts that such "McThinking," not just by students but the general population as well, will lead to dire consequences for our country. In a "culture of distraction," writes Jackson, we lose "the powers of focus, awareness, and judgment that fuel self-control." Without these, "we cannot fend off distractions, set goals, manage a complex, changing environment, and ultimately shape the trajectory of our lives" (233).

Nick Carr's nationally-debated "Is Google Making Us Stupid?", the July/August 2008 cover story of *The Atlantic*, reveals how instant access/instant results internet technology insidiously robs us—even those of us who are readers—of our ability to maintain focused attention. And not just psychologically, but neurologically: the neural structures that enable us to sustain attention and engage in deep reading, when underused, literally wither and die, making it a struggle to understand and absorb complex written ideas. In *The Age of American Unreason,* Susan Jacoby traces America's forty-year decline in respect for knowledge, a disturbing trend that has left us in a morass of public ignorance, anti-rationalism and anti-intellectualism that profoundly threatens our democracy. With an American public that has little respect for knowledge and a frightening inability to understand science (resulting in eight years of a president who stood brazenly in opposition to advanced scientific thinking and endorsed the teaching of intelligent design), we have good reason to fear for our collective future (Jacoby 28). Yet this is the culture our students are inundated with, immersed in, and surrounded by, outside the classroom. We've got our work cut out for us.

While social networking over the internet, so appealing to the young, can be reasonably argued to be nothing more than the digital version of passing notes in class or talking for hours on the telephone, my own classroom experience leads me to believe that the kids are not just having fun with Facebook and texting, but that they are truly addicted, in the true

neurobiological sense, to these activities. Hoping for a lively class discussion on the social issues that will affect their lives, I wind up my reflections on the importance of critical thinking in a democratic society, and ask them to close their laptops or put away the cell phones they've surreptitiously (yet obviously) been texting on. For some of them, this is torture. Sweat forms on their brows. They stare blankly, unblinking (presumably imagining all the cybersocial interaction they're missing). A few students participate, and some I know are engaged although too shy to speak up, but most can think of nothing to say. Discussions so often fizzled in this atmosphere that I settled for letting the extroverted Facebook addicts keep their laptops open and multitask their way through a class discussion. Partial participation and half their attention, I decided, was better than none.

An enormous problem, in part related to multitasking and unchecked socializing, is that students are increasingly resistant to reading, either for school or for pleasure. In *Reading Between the Lives*, an excellent–if unsettling– documentary about a representative sample of students at a California community college, the students readily and unabashedly admit to completing entire semesters without ever opening a textbook. They dislike reading, they're stymied by advanced vocabulary, and they can't focus long enough to absorb the information they're supposed to be learning. This excerpt from the film's transcript encapsulates their perspective on reading assignments:

Kahlif: It's pretty much, how I feel when I open that book and take a look at it. It's no real strategy... scanning... scanning... I don't really have a good technique.

Matt: But if I'm not in the mood to do it, I'll just do it half way, and my assignments won't come out as good.   Neal: I could read something and it just, go through one ear and out the other. It just...

Shirley: You be wanting to read to and I just be like you know you're just like a... It's going through one ear and out the other.   Steve: Reading... It's going through one ear and out the other. And it's just like, I try to remember things and I just can't. If I don't know anything about it.   Jennifer: I did take a study class at the beginning of my college career, and they did do a little, trying to set up systems for you, but everybody's different.   James: Without reading, you're not going to be able to get though stuff. But there's ways to get around it. Like I said, I'd much rather have more visual or more listening stuff, instead of the reading.

 Matt Hohl: Like in history, I go through the book, but then I also watch the History Channel and I learn from my dad, from him reading books and stuff on history. So I always, like I said, me and my teachers bump heads cause I know certain things that they might not know, that aren't in the book yet... Cause I can Bullshit on some papers pretty good, but I have to read some of it to be able to bullshit through the rest of it.

Megan: Well what I was going to do last night, but I was too tired, was at least finish the chapter after I was in the middle of it. So that way, I felt like I accomplished something. Which is something I'm going to hopefully, maybe try and do before my math class.

Mack: Well I lag, lag until, almost like, the last day.

C.J: To be honest, I do more of the reading on Monday morning. [*Jack laughs*] (McFarland 6-7)

These are community college students, but their sentiments are echoed by many

of my students and confirmed by professors in colleges and universities across

the country. It's a national disaster. Yet all these students who not only hate to read but *refuse* to read—and I am mainly speaking of recent high school graduates rather than older, returning students—believe themselves to be "college material." They compensate for a paucity of academic skills with an abundance of confidence.

Lacking a solid foundation in reading and writing skills, these overconfident freshman composition students find themselves disappointed, and sometimes angry, when their papers are returned with C or D grades. And they seem surprised by the number of elements that need work, especially if they did fairly well, or even very well, in high school English; apparently their teachers graded only on content, or on what they were *trying* to say. Yet, curiously, even after their "Dorothy moment," they expend little effort in improving their skills, much less in *mastering* the language they use to convey their ideas.

Besides reading and learning grammar, many are resistant to any academic endeavor that is tedious or time-consuming. Despite their professor's emphasis on using scholarly resources, despite librarian-led instruction in research techniques using library databases, they continue to rely on superficial Google searches to find the requisite support for their papers. This, coupled with their inability to distinguish a credible website appropriate for academic work from one that is highly biased or blatantly commercial, results in haphazard support for a position they've predetermined is correct, whether they've really thought it through or not. While I personally applaud their progressive views on,

for example, topics such as gay marriage and gay adoption ("love and let love" seems to be their philosophy), it's nearly impossible to get them to consider the complex reasons social issues are not easily resolved. Whatever they don't agree with, whatever doesn't interest them, they simply tune out.

Grammar is one of those things that gets tuned out, logic another. Surprisingly, even the better writers often resist learning new skills. Although instructors point out areas in their papers that need attention, offering insight into the reasons their logic doesn't hold up, or suggesting resources to learn about various grammar and punctuation issues, the majority of students revise only minimally, patching up wounded sentences by sticking a synonym here and a semicolon there. Rarely will they rethink the logic of their papers or scrap their scant, inadequate sources for ones that are credible.

Why not? William Perry's scheme of intellectual and ethical development offers insight into the first problem: students at the age they typically enter college are at a stage of cognitive development characterized by dualistic thinking. They see problems as having a right or wrong answer, and considering a multiplicity of viewpoints is *cognitively* difficult for them. Even as they move beyond dualism to multiplicity, they still resist reasoning and proof, favoring what "feels" right. It stands to reason, then, that they would be reluctant to rethink the logic of their argument. Even if they do try, they probably end up in the same place, with a point of view that still *feels* right to them even if they can't explain it better, so they don't revise. What about their resistance to research?

25

We all know that even with an excellent choice of keywords, due to the volume of information returned, good research is time-consuming and tedious. That's two strikes against it. Good research also involves a tremendous amount of reading– and that delivers research its deathblow.

In reading their final drafts, teachers find it painfully obvious that students spend little or no time using their handbook (which all of them dislike) or using recommended college websites to learn grammar, punctuation, formatting, or style. No matter how often the teacher reminds them of these resources, ones that would improve not just their writing but their grades as well, they seem unable or unwilling to spend the extra time. When asked, a few say they looked at them once or twice, but the majority admit to not using the resources at all. Students vary quite a bit in their attitude towards their mistakes: some feel embarrassed about their inadequacy, others don't seem to care because their future career won't involve much writing (or so they think), and still others resent rules for writing that are so different from speaking and think either the rules should change or teachers should stop being so picky. Among these are students who sincerely want to improve their writing but can't seem to get the hang of it. The punctuation and grammatical errors that students frequently make stem from a variety of causes: ignorance of the rules they were supposed to learn in K–12 classes is, of course, a primary reason, but mistakes can also result from carelessness, poor reading skills, not proofreading, and being in a hurry. The sheer number of errors in a paper can be fatiguing for the teacher

and daunting for the student. In his 1983 article titled "Minimal Marking,"
Richard Haswell asserts that over-marking papers leads students to experience
information overload and has repeatedly been shown to be ineffective for
improving writing. His methods of addressing this problem have proven
successful. Rather than circle all errors and provide explanations, he maintains,
the professor should place checkmarks in the margin to indicate one or more
errors in a line. This benefits both professor and student in several important
ways. Students must hunt down their mistakes– this actively engages them in
the correction process and makes them cognizant of which errors are due to
sloppiness and which result from not understanding the rules (which, in a perfect
world, they would then be eager to learn). Additionally, this practice results in
less tedium for the professor, who is then less likely to become worn down and
disgruntled from correcting the same sorts of mistakes over and over, and allows
time for addressing more substantial errors (601). This excellent practice has
been adopted by many teachers, myself included. Yet, in spite of this method of
marking, simple mistakes seem to persist, paper after paper. The mystery is
why.

According to recent research, errors that were the most common in earlier
eras have been supplanted by others in this age of grammar and spell checkers,
as elucidated in Andrea Lunsford and Karen Lunsford's 2008 article "Mistakes Are
a Way of Life: A National Comparative Study." Although this recent study, which
began in 2006, carries the disclaimer that it may not accurately reflect the

current status of college writing because it was far smaller than the earlier studies used for data comparison (due to labyrinthian IRB requirements that precluded thousands of colleges and teachers from participating), taken at face value, the percentage of errors that beginning writers make has remained fairly consistent since 1917. The *types* of errors included in the top twenty, though, have shifted in position. For example, the top ten errors in the 1986 Connors and Lunsford study were:

1. No comma after introductory element

2. Vague pronoun reference

3. No comma in compound sentence

4. Wrong word

5. No comma in non-restrictive element

6. Wrong/missing inflected endings

7. Wrong or missing preposition

8. Comma splice

9. Possessive apostrophe error

10. Tense shift

The top ten errors in the 2006 Lunsford and Lunsford study were:

1. Wrong word

2. Missing comma after an introductory element

3. Incomplete or missing documentation

4. Vague pronoun reference

5. Spelling error (including homonyms)

6. Mechanical error with a quotation

7. Unnecessary comma

8. Unnecessary or missing capitalization

9. Missing word

10. Faulty sentence structure

Many of the current errors, the authors speculate, can be attributed to the use of word processing programs; a percentage of faulty sentence structure errors results from imprecise cutting and pasting, for example, and wrong word errors often stem from the mixed blessing of spell checkers:

> But every blessing brings its own curse. In this case, many of the wrong word errors appear to be the result of spell-checker suggestions. A student trying to spell "frantic," for example, apparently accepted the spell-checker's suggestion of "fanatic." Wrong word for sure. In addition, some students appear to be using a thesaurus feature without also using a dictionary to understand the nuances of meaning for various words— "artistic," for example, when "aesthetic" is the appropriate choice. Still other wrong word mistakes seem to result from choosing a word that has a somewhat similar sound: "concur" rather than "conclude" or "analyses" rather than "analyzes." Finally, many wrong words seem to come from the

simple failure to proofread: writing "begging" for "beginning" is no doubt

such a case in point. (Lunsford and Lunsford 796)

The authors conclude that, given the observation that roughly the same

percentage of errors has been made by generations of students for almost a

hundred years, it's time to accept that "mistakes are a fact of life" and part of

the learning process. That may well be true– but are students learning as much

as they could be?

Surprisingly, even *they* don't seem to think so, according to a recent

survey. In January 2011, New York University sociology professor Richard Arum

and University of Virginia assistant professor of sociology Josipa Roksa published

their analysis of the current state of higher education in *Academically Adrift:*

Limited Learning on College Campuses. The book discusses the results of a study

that followed 2,300 students enrolled at 24 colleges and universities over four

years. Statistically representative of undergraduates across the country, these

students were evaluated with the College Learning Assessment, a respected tool

that measures analytical reasoning, critical thinking, and writing skills.

Additionally, the students were surveyed to determine how much time they spent

studying and how many papers they wrote for their courses. The results are

troubling, to put it mildly:

Forty-five percent of students made no gains on the CLA during their first

two years in college. Thirty-six percent made no gains over the entire four

years. They learned nothing. On average, students improved by less than half a standard deviation in four years. "American higher education," the researchers found, "is characterized by limited or no learning for a large proportion of students." (Carey)

Although a slightly larger percentage of students followed in the study had gone to better high schools and then on to more academically rigorous colleges and universities, these findings are still alarming. Yet they are not all that surprising when correlated with the amount of time the students reported spending on coursework: 35 percent reported five hours a week or less; 50 percent did not have one course in the previous semester that required 20 pages of writing.

Confirming what Mark Bauerlein, Susan Jacoby and others have been claiming will result from the decline in academic standards and student performance, co-author of *Academically Adrift,* Richard Arum, in an interview for National Public Radio, states: "Our country today is part of a global economic system, where we no longer have the luxury to put large numbers of kids through college and university and not demand of them that they are developing these higher order skills that are necessary not just for them, but for our society as a whole."

One obstacle, a phenomenon of recent decades, impedes both teaching and learning, contributing to the enormous task of educating present and future generations of college students– their consumer mentality. Students see a

college education not as a privilege, as it was for centuries, but as an unfortunate prerequisite to getting a decent job, a prerequisite they must not only endure, like high school, but now pay for. As buyers, they expect colleges and universities to compete for their dollar by offering them what they typically like to spend their money on: entertainment. They have come to expect this both outside the classroom and within. In tandem with a predisposition for McThinking, this consumer-culture mentality has had unforeseen negative consequences on academic standards. University of Virginia professor and award-winning scholar Mark Edmundson wrote an article for *Harper's* in 1997 on this unfortunate change, and it is even more relevant today. Titled "On the Uses of a Liberal Education as Lite Entertainment for Bored College Students," Edmundson laments the consumer atmosphere that allows professors to be evaluated by their students, not on the basis of the breadth of their knowledge and expertise, but rather on their ability to make their courses *fun*. He does know how to give students what they want and always receives excellent evaluations: students describe him as humorous, interesting, and entertaining (just as they might describe the pilot for a new television show, he notes). Yet Edmundson admits he's uncomfortable with the image of himself that emerges from these evaluations: "Most of all I dislike the attitude of calm consumer expertise that pervades the responses. I'm disturbed by the serene belief that my function–and, more important, Freud's, or Shakespeare's, or Blake's–is to divert, entertain, and interest" (310). He cautions how detrimental it will be to

the future of higher education to continue the practice of allowing students to evaluate teachers, given their preferences for infotainment. And he is correct. Professors today must reduce reading requirements because students loudly proclaim that they hate reading; many try to keep their students engaged by showing films or YouTube videos. There is unquestionable educational value in quality multimedia presentations, including YouTube, yet their increasing use, especially when they are used as an alternative to reading, indicates a certain pandering to student preferences for visual entertainment in the classroom. Many professors would *like* to demand higher levels of performance and greater personal responsibility for learning from their students, but are reluctant to push too hard since poor evaluations may affect their pay, promotion, or even future employment (not to mention that nobody likes to be labeled "unreasonable" or, worse, "boring"). Given the reduced respect for knowledge in American culture, and, by extension, for those who fall into the category of *intellectuals*, students expect their views to be just as worthy as those of their instructors. Edmundson reports that professors who attempt to use the Socratic method to challenge their students' ideas, beliefs, or opinions often find themselves facing unpleasant consequences: "A controversial teacher can send students hurrying to the dean and the counselors claiming to have been offended" (319). Consequently, all professors are under pressure to give students what they, as buyers, expect: to be amused and entertained, to receive higher than average grades, and to have all their academic challenges be "lite."

In "What Students Want: A Meditation on Course Evaluations," also written during the mid-1990s, Montana State University English professor Paul Trout echoes Edmundson's observations and sentiments. He traces the origins of poor performance among American students to their K–12 education, referencing Charles Sykes' 1995 *Dumbing Down Our Kids*, which he describes as

> a harrowing account of anti-intellectual theories and practices in K-through-twelve instruction—that much of primary and secondary education has virtually surrendered to this entertainment ethos. Every meaningful aspect of education—grading, reading, memorization, superior performance, classes for the gifted, honor rolls, even correct grammar, spelling, and computation—is willingly sacrificed to make "learning" comfortable, easy, joyful, exciting, and above all "fun!"

Trout reproduces scores of verbatim comments about professors from student evaluation forms. He finds it especially outrageous that students dislike teachers who do not conceal the fact that they might actually know more than *they* do. A sampling of some of these comments:

> . . . he often belittled us when we asked questions and made us feel awkward / he should not be so snappy and condescending / she also seemed to put her own opinions in as fact and pulled stuff out of no where! / I think the teacher should not try to impose his viewpoints on us / I felt that the instructor pushed her views on the class and this was

somewhat offensive / try not to dwell on [your Ph. D.] –it is indirectly condescending / he needs to recognize everyone's opinion is valid, and not to look so highly upon himself. . .

Trout believes these attitudes are the natural consequence of K–12 experience, where students were fed a steady diet of high praise for mediocre work, kid-glove handling of their self-esteem, and social promotion despite failing performance. He agrees with and summarizes the assessment of professor Michael Platt, author of a series of essays on education and learning collected in *Souls Without Longing*. According to Trout, Platt believes these forms

> . . .teach students that students are not personally responsible for anything they say; that students are competent to judge their teachers and are essentially equal to them; that students should judge their teachers on how well they have satisfied students' expectations; that students need not engage in self-evaluation; that what students feel about the class is more important than what they learn; that comfort is the test of good teaching; and, that demanding teachers are not so good as mediocre but entertaining ones.

The lack of engagement, resistance to pedagogy, inability to focus, refusal to read, and inadequate amount of time devoted to assignments are all serious problems that are difficult for untenured teachers to tackle given the pressure they're under to maintain student approval. In the business world, the idea that

employees should determine the pay and promotion of their supervisors through evaluations would be preposterous. To garner favor, supervisors would lighten their employees' workload, grant longer lunch hours, turn a blind eye to unrestricted internet surfing during work hours, and let substandard work pass as acceptable. As a result, the company's product or service would suffer severely, likely bringing the enterprise to ruin. This is exactly what is going on in higher education. While complaints and suggestions–delivered anonymously, privately, and solely to teachers–would be valuable feedback and give students a voice, eliminating the administration's practice of asking students to *evaluate* teachers would put an end to grade inflation and enable colleges and universities to enforce higher academic standards. With a greater risk of a low GPA or even failing out of school altogether, students would necessarily have to take their courses more seriously, learn to read, learn to focus, and spend more time on assignments than they do on Facebook and beer pong. As the upshot of these behavioral changes, they might actually learn what professors so earnestly try to teach them. The outcome would be graduates who are far better qualified, not only to compete for jobs, but to perform them.

Richard Arum agrees. He suggests that the decline of critical thinking and writing skills revealed in his study stems from a decline of academic rigor, which in turn is precipitated by the fact that the principal means used to evaluate faculty are student evaluations. In the February 2011 NPR interview he states: "There's a huge incentive set up in the system [for] asking students very little,

grading them easily, entertaining them, and [then] your course evaluations will be high."

Ending student evaluations would be a major step in redressing mediocre quality in post-secondary education. But the fact that so many students enter college underprepared and would be unlikely to succeed if given serious, challenging coursework is an enormous problem that must be addressed and corrected *before* the students even apply to college. Education reform leaders Michelle Rhee and Geoffrey Canada, featured in the 2010 documentary *Waiting for Superman,* place much of the blame for our failing school system on underperforming and clearly incompetent teachers who cannot be fired because they are protected by tenure and a union contract. While the film does not mention disruptive students who drain their teachers' patience as well as morale, unrealistic parents, or Mark Bauerlein's accusation that students are far too preoccupied with themselves, their friends, and their own insular social world to care about learning, knowledge, and academic skills, the film, though not without its critics, is certain to stir up a public outcry.

Before reform takes hold (and hopefully it will), first-year composition instructors must deal with the situation as it is now: their students need remedial help with writing. They must motivate these often unrealistic, overconfident, and resistant students to use resources such as online writing labs and instructional grammar programs to help them help themselves.

CHAPTER 3   THE USABILITY OF ONLINE INSTRUCTIONAL RESOURCES

The Case for Online Instructional Resources

One of the top complaints expressed by employers is that even their college-educated employees write poorly. Instructors of freshman composition must keep their focus on higher order concerns, yet guide their students to resources that will teach them, on their own time, the rules of composition and grammar that they have not mastered. Writing Center tutors can help students with the more difficult challenges in writing college-level papers, such as clarifying their ideas, maintaining focus, organizing their arguments, and recognizing the difference between fact and opinion. The one-on-one interaction with a tutor can never be adequately replaced by a book or even by an interactive computer program. Yet grammar, punctuation, and many other aspects of writing *can* be learned through handbooks and online resources. As with English instructors, tutors must use their limited time in a way that is most beneficial to the students. When tutors refuse to be editors, the students must accept responsibility for making up for their shortcomings in English grammar and mechanics. One always-available and no-cost resource they have at their disposal is the online writing lab.

Yet my experience, and that of my colleagues, is that students rarely take advantage of these resources. Part of the explanation, surely, is their lassitude, as well as their involvement in activities that are decidedly more fun. But it's also true that OWLs, like many commercial websites, are often guilty of not being user friendly. Usability research has repeatedly shown that users will abandon a site after a few clicks if they find it frustrating or don't find what they want. Students are no different; in addition, they are easily distracted and easily bored. Making a bad situation worse, many OWLs are composed of dated resources–work sheets, drill activities and so on–that have been "pulled out of the mothballs, dusted off, and digitized" (Hobson 483). A brief look at the online writing lab from the standpoint of usability, rather than at the extent of its offerings, will reveal areas that could be improved, increasing the chances that students will actually take advantage of all that OWLs have to offer.

Some General Principles of Usability

In the Information Age, students (as well as the rest of us) are bombarded with information and sinking under information overload. Good web writing takes this into consideration and approaches content as a conversation rather than a lecture, allowing users to ask questions and get answers quickly and easily. One huge mistake web designers make is assuming their users will read their content; in actual practice, users don't read much, especially before

they get to the information they're looking for. Instead, they scan topics and skim content before they start to read, and they only want to read the minimum amount they need to meet their needs. Jakob Neilsen, considered by the industry as the world's leading authority in web usability, has found that viewers seeing a website for the first time spend less than 30 seconds on the site's home page, and less than two minutes on the entire site if they don't find what they want. Eye tracking "heatmap" studies (that measure eye fixations) done by the Neilsen Norman Group reveal that readers scan each page in an "F" pattern (Pernice and Nielson 14-15); in the following image, red indicates the most eye fixations, yellow fewer, blue fewer still, and gray none at all:
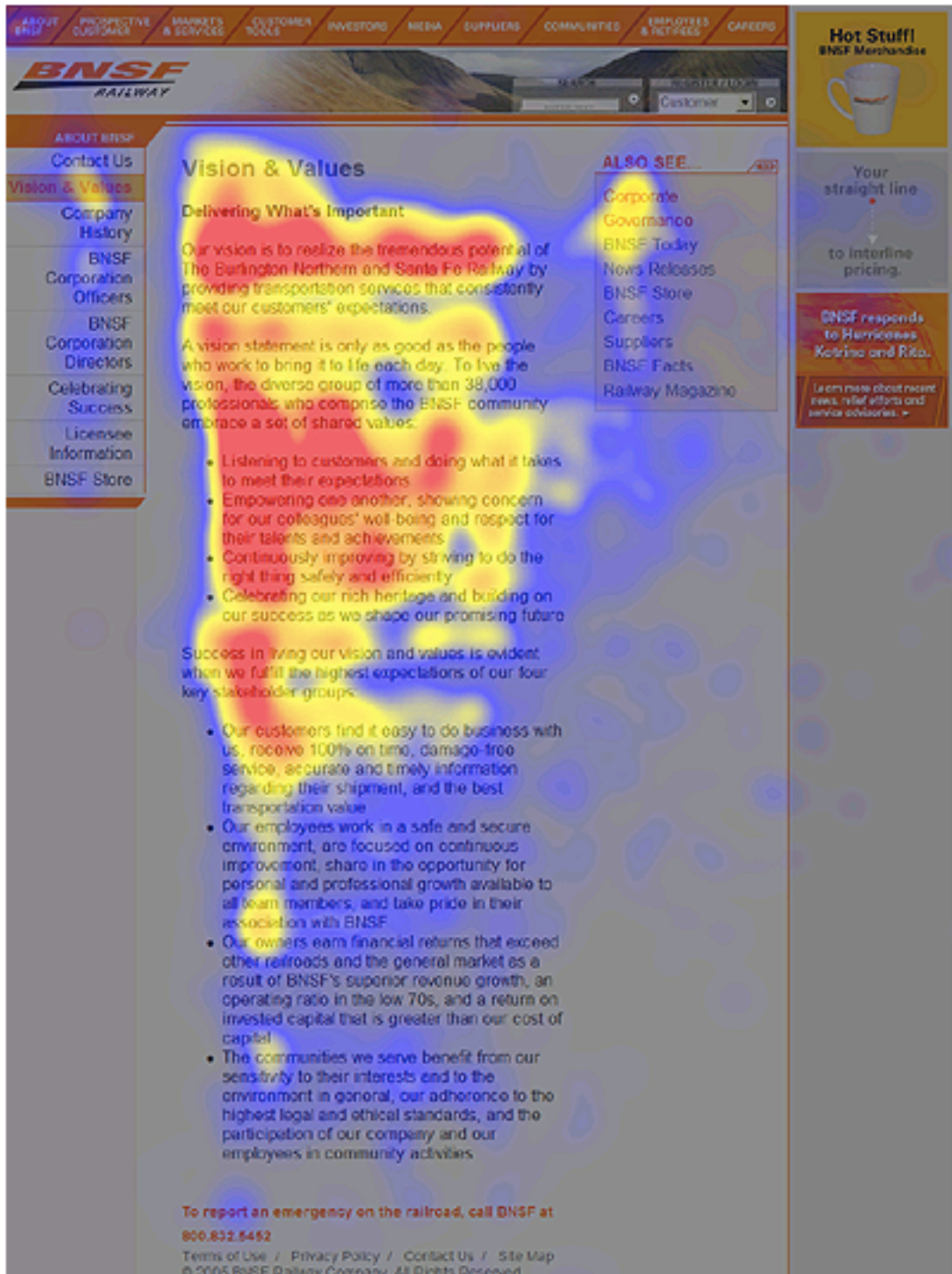
Figure 1   F pattern

Readers scan for headlines and bullets that will guide them to the information they seek– they won't read entire paragraphs. Banner ads were effective at grabbing a user's attention just a few years ago, yet their ubiquity has resulted in what is now known as "banner blindness," as the following heatmap images illustrate:

Figure 2   Banner blindness 1

Figure 3   Banner blindness 2 & 3

The Nielsen Norman Group found that banner blindness holds true even for page

elements that are not ads– users just tune them out, sometimes missing

essential information. For example, a non-profit health website had important

advice–contained within in a box–about what to do immediately if you think you

might be experiencing a heart attack– but users didn't see it (Steel 1). Similarly,

pop ups are quickly dismissed and flashing graphics are ignored.

Content should be concise and visually appealing. As for copy, Nielsen

recommends that there should be no more than one idea per paragraph, since

users scan for only the information they need. When several ideas are contained

in a single paragraph, they are likely to be missed, as users read the first few

words and move on. For this reason, the inverted pyramid writing style used by

news reporters is the best strategy: the most important words should come first.

Websites should also strive to speak the user's language, with words and

phrases that are familiar rather than intimidating or confusing; this is especially

true for navigation. Additionally, since users have a short attention span, the

more information there is on a page, the less likely each item is to be noticed.

Users scan headings and are more likely read bullets than paragraphs. The

biggest error in web design (often not the fault of designers but done at the

insistence of content providers) is presenting users with "a wall of words." No

mater how charming or fascinating or enlightening a provider believes this

information to be, unless it is precisely the information users are looking for, they

won't read it. They'll either click on another page, or they'll flee the site entirely.

Good graphic designers know the importance of surrounding text with

white space– it both makes the text stand out and makes it *easier* to read, and

ease reduces cognitive load. Well-chosen visuals add interest to the page, but

too many become clutter. A recent study found that users can asses the

attractiveness of a website in just one-twentieth of a second (Nielsen "Powers").

This is not to say that users will necessarily leave a site if they don't like the look

of it, but their unconscious visual assessment will affect their overall satisfaction.

Besides contributing to usability, visual appeal will influence how likely the user is

to return. Saturated colors are attention getting, but they cause eye fatigue, and

should not be used when the goal is to retain the user for long periods of time.

Similarly, small print may allow more content to fit on a single page, yet the

eyestrain and additional effort required to find information result in a negative

user experience. Content that may be flattering or important to the company or

institution but is of little interest to the intended audience should be eliminated.

Such content amounts to noise that also detracts from the user's experience.

Each obstruction, large or small, adds to cognitive load; the greater the cognitive

load, the greater the likelihood a user will abandon the site, never to return.

The most important concept behind successful web design, whether for

commerce, government, or education, is: "know your user." First, consider

everything that, as novices, users *don't* know, and offer alternative words or

phrases that will lead them to what they are looking for quickly, or they will give

up, assuming it's not to be found (or that *they* will never find it). Secondly, know

their preferences for gathering information (for example, speed over depth, ease

over completeness), as well as their habits (such as multitasking). The user's

perspective should be the foremost consideration in any design decision. Any

other approach is detrimental at worst, and ineffective at best.

While businesses lose untold numbers of sales by ignoring these principles

(since the competition is just a mouse click away), online writing labs lose untold

numbers of students their intention is to help. Students are not as highly

motivated, on an emotional level, to use educational websites as they are to use

the internet for social networking, sports news, entertainment, gaming or

shopping. In addition, they are easily distracted, easily frustrated, quickly bored,

and very impatient. And the majority of them–certainly the ones who need online

writing labs the most–don't like to read, don't read fast, and don't read well. All

of these factors must be taken into consideration if the goal is to help them learn

to be better writers.

CHAPTER 4   USABILITY PRINCIPLES AND PURDUE'S OWL

Purdue's 2010 OWL

Considered the gold standard of online writing labs, the award-winning

OWL at Purdue does offer help on an extensive array of writing topics.

Unfortunately, the site commits just about every usability crime possible (with

the exception of flashing graphics and annoying music). The OWL at Purdue

recently included a notice stating the site is being redesigned, and perhaps its

problems will soon be corrected. On the other hand, an earlier design, found in

internet archives, was actually better in terms of usability than its current

incarnation; sometimes improvements turn out to be counterproductive.

The Purdue OWL's Home page "for non-Purdue instructors and students,"

largely identical to the main site but omitting links to on-campus services,

contains a number of poor usability choices that are repeated throughout the

site. The most striking is the waste of space in the browser window– roughly *half*

is unused. Moreover, this unused space is filled with a highly saturated, eye-

fatiguing orange, presumably Purdue's "Old Gold" school color, which might be

fine for a football uniform but is decidedly unpleasing as a website theme. The

designer also uses this color for hyperlinks and subheadings, adding a smattering

of gray, black, and brown for larger headings. Given that red/green themes

remind us of Christmas, lavender/yellow of Easter bunnies and fuzzy chicks, and

black/orange of Halloween frights, Purdue's orange/white/brown theme calls to mind (to my mind at least) a Thanksgiving pumpkin that's starting to spoil. The atrocious color scheme aside, Purdue's Home page is cluttered with words, many of them inscrutable, unnecessary, or redundant. For example, "Non-Purdue College Level Instructors and Students" is repeated twice, separated by two boxes that users will completely ignore while they search for advice about writing:
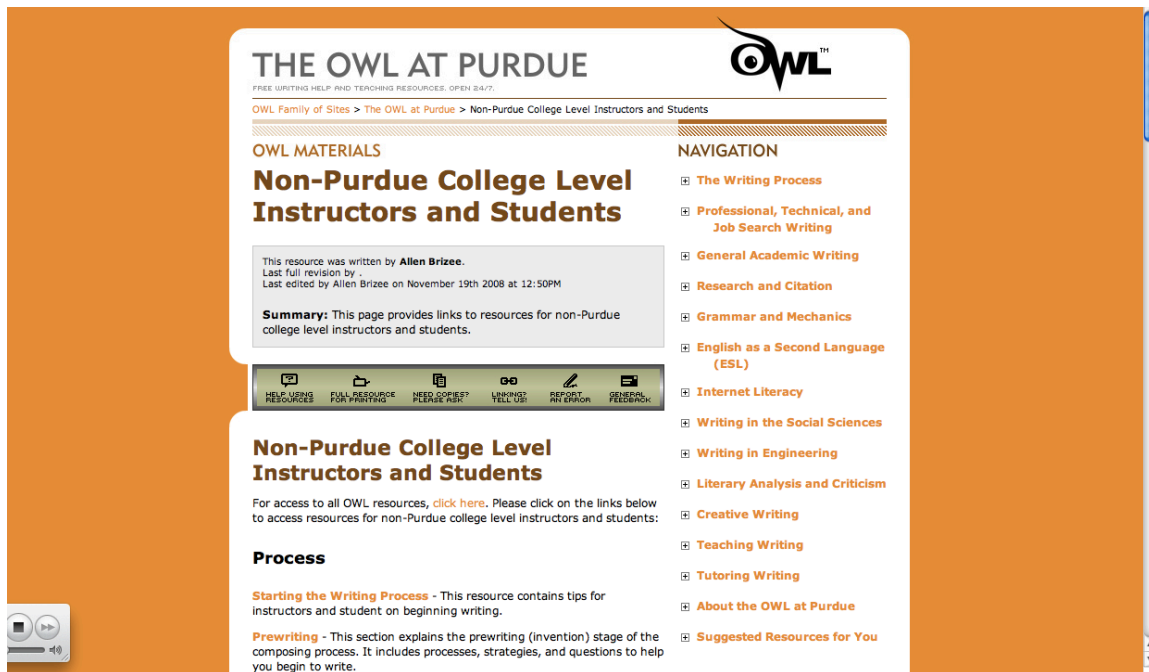

Figure 4   OWL Home page 2010

Just above the first of these redundant headings, we find the phrase "OWL MATERIALS." This provides no useful information– what else would we find on the page but OWL materials? Above that phrase we do find a useful feature, navigational "breadcrumbs," just where we'd expect to find them. This is good, as web pages should always show users the path that led them to where they

are, and provide a way to return to previous pages without having to rely on the browser's back button, especially when browser history might be filled with a dozen hyperlinked pages. (Unfortunately, the designer has been inconsistent, and the breadcrumbs don't retrace all steps of the path on every page, but often leap to another area.) Just above the breadcrumbs, if we can make it out (a magnifying glass is helpful), we see that this page consists of "Free writing help and teaching resources, open 24/7." Is that bit of information necessary? Don't we already know it's free? Has it been our experience that websites disappear after midnight? But taglines are common, and this one would be innocuous if it weren't for the fact that it is unreadable, which puts it in the category of visual noise. If the user *does* make the extra effort required to read the unnecessary words, that exertion has added to eyestrain and cognitive load.

The first of the two rectangular boxes contains information of little interest to the vast majority of users; if it's necessary for some users, Purdue instructors perhaps, to know who edited the page and at what precise date and time, this info box should be placed in a less prominent place. Most likely, the information is useful only to those few who are editing and maintaining the site.

This resource was written by **Allen Brizee**.
Last full revision by .
Last edited by Allen Brizee on November 19th 2008 at 12:50PM

Summary: This page provides links to resources for non-Purdue college level instructors and students.
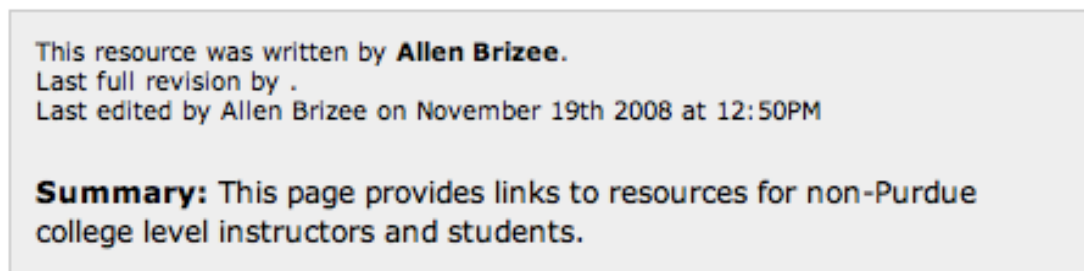
Figure 5   Contributor box

The summary tells us yet again that the page provides resources for non-Purdue instructors and students, in case we missed it the first and second time and forgot that we navigated here intentionally. The metallic sort-of-silver-colored toolbar containing six cryptic icons with teeny, tiny lettering is also likely to be skipped over.

Figure 6   Toolbar 2010

Requesting copies, linking, error reporting, and feedback all lead to a single contact form and could probably be served by a single icon; the toolbar could also be placed higher on the page, where a user expects to find toolbars.

The right sidebar contains a categorized list of all links to writing help, each item marked by a box with a plus sign indicating that more subheadings are contained within. Though unimaginative, the convention and symbol are familiar to PC users. A search box would be useful but isn't included. Selecting an item brings the information into a web template "frame," leaving the sidebar visible. While keeping the sidebar accessible is useful, the designer's early choice of a space-wasting template means that explanations must be contained within a cramped, four-inch vertical space to the left of it. Under "Grammar and Mechanics" we can find, for example, a subheading for commas:

Quick Guide to Commas

1. Use commas to separate independent clauses when they are joined by any of these seven coordinating conjunctions: *and, but, for, or, nor, so, yet.*

2. Use commas after introductory a) clauses, b) phrases, or c) words that come before the main clause.

3. Use a pair of commas in the middle of a sentence to set off clauses, phrases, and words that are not essential to the meaning of the sentence. Use one comma before to indicate the beginning of the pause and one at the end to indicate the end of the pause.

4. Do not use commas to set off essential elements of the sentence, such as clauses beginning with *that* (relative clauses). *That* clauses after nouns are always essential. *That* clauses following a verb expressing mental action are always essential.

5. Use commas to separate three or more words, phrases, or clauses written in a series.

6. Use commas to separate two or more coordinate adjectives that describe the same noun. Be sure never to add an extra comma between the final adjective and the noun itself or to use commas with non-coordinate adjectives.

7. Use a comma near the end of a sentence to separate contrasted coordinate elements or to indicate a distinct pause or shift.

8. Use commas to set off phrases at the end of the sentence that refer back to the beginning or middle of the sentence. Such phrases are free modifiers that can be placed anywhere in the sentence without causing confusion.

9. Use commas to set off all geographical names, items in dates (except the month and day), addresses (except the street number and name), and titles in names.

10. Use a comma to shift between the main discourse and a quotation.

11. Use commas wherever necessary to prevent possible confusion or misreading.

Figure 7   Guide to commas 2010

First impression: a wall of words. While an English teacher may–possibly–find this list of rules helpful as a refresher, it violates the most basic rule of usability: know your user. A novice, a struggling student needing help with the enigmatic comma, will find this of little value, especially since no examples are given. It is abstract, contains unfamiliar terms and phrases, and quickly feels, if not intimidating, at the very least confusing. For example:

> 4. Do not use commas to set off essential elements of the sentence, such as clauses beginning with *that*. *That* clauses after nouns are always essential. *That* clauses following a verb expressing mental action are always essential.

What is insidiously harmful about this sort of "explanation" is that the words themselves are not entirely unfamiliar, yet they don't make sense. For the student needing help, this rule is as clear as mud. How discouraging.

Continuing on to a link further down on the page, the user encounters more hard-to-read print and more explanations containing unfamiliar words and concepts:

Comma

Use a comma to join 2 independent clauses by a comma and a coordinating conjunction (and, but, or, for, nor, so).

Road construction can be inconvenient, but it is necessary.

The new house has a large fenced backyard, so I am sure our dog will enjoy it.

Use a comma after an introductory phrase, prepositional phrase, or dependent clause.

To get a good grade, you must complete all your assignments.

Because Dad caught the chicken pox, we canceled our vacation.

After the wedding, the guests attended the reception.

Relative Pronouns
Sentence Clarity
Sentence Clarity Presentation
Sentence Fragments
Sentence Punctuation
   Patterns
Spelling
Subject/Verb Agreement
Teaching and Assessing
   Grammar
Transitions and Transitional
   Devices
Two-Part (Phrasal) Verbs
   (idioms)
Verb Tenses

⊞ English as a Second Language
   (ESL)

⊞ Internet Literacy

⊞ Writing in the Social Sciences

⊞ Writing in Engineering

⊞ Literary Analysis and Criticism

Figure 8   Comma usage

In contrast, the design of the original OWL at Purdue, though far from perfect by today's standards, used space more effectively, was easier on the eyes, made good use of hyperlinks, offered a search box, and was more user-friendly:
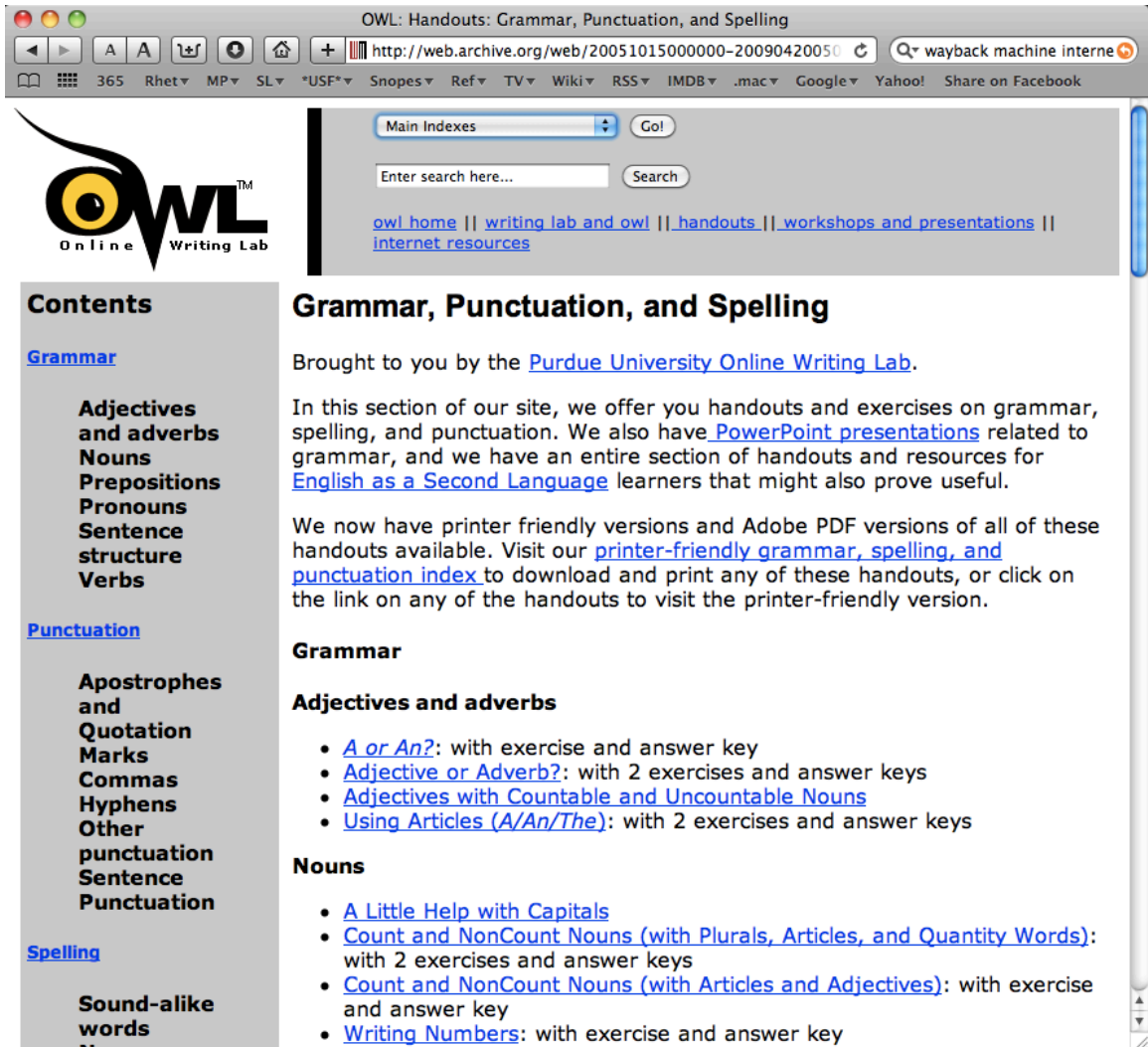
Figure 9   Purdue's OWL– archived version

Although it's hard to tell from the screenshot, the original page filled the browser

window and could be stretched to any size, making it eminently more readable.

In contrast to the current Purdue OWL comma page, explanations of comma

usage on the former site were made clear with simple examples and the use of

color:

1. Use commas to separate independent clauses when they are joined by any of these seven coordinating conjunctions: *and*, *but*, *for*, *or*, *nor*, *so*, *yet*.

    The game was over, but the crowd refused to leave.
    The student explained her question, yet the instructor still didn't seem to understand.
    Yesterday was her brother's birthday, so she took him out to dinner.

2. Use commas after introductory a) clauses, b) phrases, or c) words that come before the main clause.

    a. Common starter words for introductory clauses that should be followed by a comma include *after, although, as, because, if, since, when, while.*

        While I was eating, the cat scratched at the door.
        Because her alarm clock was broken, she was late for class.
        If you are ill, you ought to see a doctor.
        When the snow stops falling, we'll shovel the driveway.

Figure 10   Purdue's Owl– archived version 2

The new Purdue OWL may offer help on more topics than the previous version, but eliminating the search box was a mistake. The sidebar list contains inconsistencies that can cause hurried or impatient students to assume the information they are looking for is not there. The alphabetized "Grammar and Mechanics" list starts with "Active and Passive Voice." Isn't it more likely that a student would be looking under P for "passive voice" having been told to avoid it in a comment on a paper? Since it tops the list, the student will probably find it. But what about "Relative Pronouns" or "Two-part Verbs"? Shouldn't these be alphabetized according to their key words? Every website, or handbook for that matter, must strike a balance between an index that is so overly detailed and cross-referenced that it becomes confusing, and one that is more readable but ineffective. A major advantage computer-based sources have over print is the search function– that Purdue no longer includes one doesn't make sense.

It seems that those in charge of Purdue's OWL are making efforts to update their materials, using graphical elements to enhance comprehension,

as the following screenshot illustrates:

Active and Passive Voice

Using Active Versus Passive Voice

In a sentence using **active voice**, the subject of the sentence performs the action expressed in the verb.

The dog *bit* the boy.

IMAGE © PURDUE OWL

The arrow points from the subject performing the action (the dog) to the individual being acted upon (the boy). This is an example of a sentence using the active voice.

Scientists *have conducted* experiments to test the hypothesis.

IMAGE © PURDUE OWL

Sample active voice sentence with the subject performing the action described by the verb.

Watching a framed, mobile world through a car's windshield reminds me of watching a movie or TV.

IMAGE © PURDUE OWL

The active voice sentence subject (watching a framed, mobile world) performs the action of reminding the speaker of something.

Each example above includes a sentence subject performing the action expressed by the verb.

View **examples** of these verb tenses in the active voice. **Please note** we are in the process of updating our resources and handouts, so these materials will change to reflect those revisions.

Figure 11   OWL update– Active and Passive Voice

And yet, look at all the unnecessary verbiage. The heading "Active and Passive

Voice" is followed by "Using Active Versus Passive Voice." The phrases are so

close as to seem identical, especially when users just scan headings, and the end

result is visual noise. In writing for the web, the concise choice is best: "Using

Active Voice" would be a better subheading. As for the illustrations themselves,

the whole point of using the arrow graphic is to make the direction of the action

clear *without* additional words– why, then, add more words to explain the

graphic? This verbosity becomes tiring. Students find working on grammar and

punctuation tedious to begin with; such weight added to their cognitive load

likely dooms the website to the "never to return" category. And that's a shame.

Update on Purdue's OWL and Usability Reassessments

Some of the pages I used to illustrate Purdue's usability errors have

subsequently been updated. The redesigned start page for non-Purdue

instructors and students–which comes up in the first few choices in an internet

search–makes better use of space, eliminates the eye-fatiguing orange

background, expands the viewable space, eliminates redundant headings,

simplifies the color scheme, and reinstates the search box:

Figure 12   Owl Home page 2010 for comparison

Figure 13   OWL Home page 2011 redesign

This is certainly an improvement, but white space still seems to be anathema to the website's designers. Since users like to get to what they're looking for and not waste time, the student-user looking for grammar instruction would barely glance at the welcome message before locating the headings in the sidebar, and then most likely click on the General Writing link, since it's the first choice and a logical place to start. This brings a different set of choices and a different sidebar.
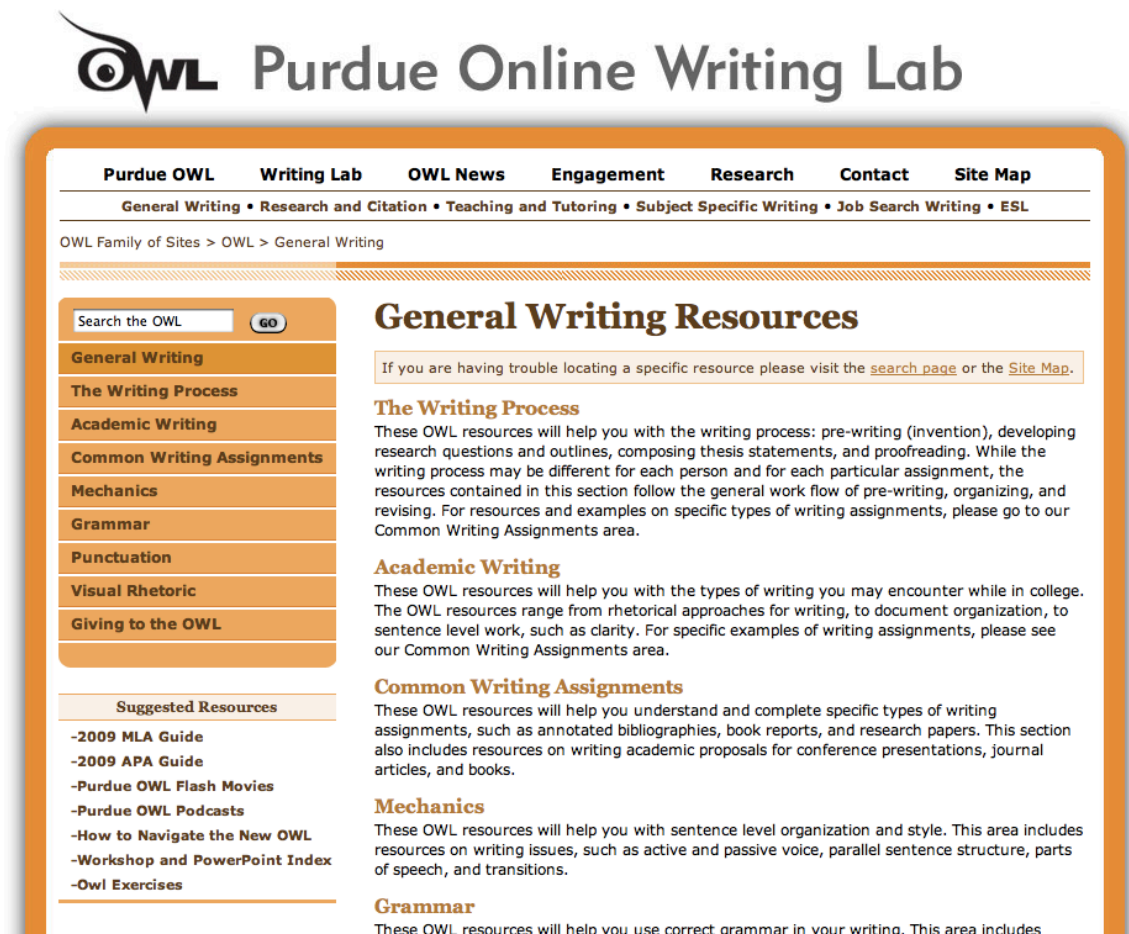
Figure 14   OWL Sidebar choices

There are still too many words here for the average student (the page, which requires scrolling, is much longer than the screenshot), but some of the topics

they typically have problems with appear in the sidebar and are clickable. The

Grammar link brings up this page:
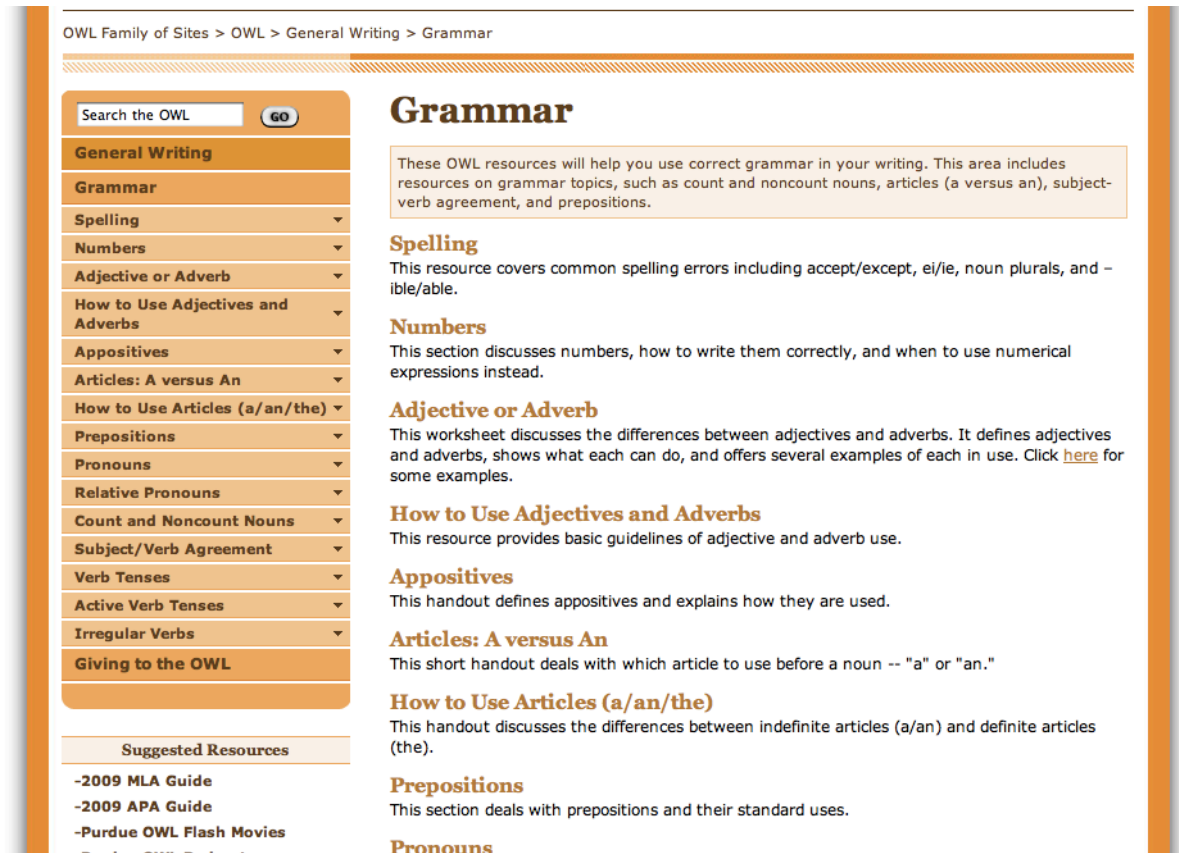
Figure 15   Sidebar grammar links

But what is the organization here? The user will wonder what it is, consciously or

unconsciously, in order to feel oriented. It's not alphabetical, since Spelling and

Numbers top the list. Must be by importance. Numbers? Is that such a major

concern that it merits second billing? No, so the list couldn't be organized by

level of importance. But after those topics come Adjectives and Appositives and

Articles, so it must be alphabetical. Next come some words that begin with P,

Prepositions and Pronouns, and then . . . well now we're back to the third letter

of the alphabet, with Count and Noncount Nouns. Not seeing any logical way to find what you're looking adds to cognitive load. (Good thing they brought back the search box.)

If the user searches on commas, the page that comes up now looks like this:

Commas: Quick Rules

Summary: This resource offers a number of pages about comma use.
Contributors: Dana Driscoll, Allen Brizee
Last Edited: 2010-04-17 06:02:09

The comma is a valuable, useful punctuation device because it separates the structural elements of sentences into manageable segments. The rules provided here are those found in traditional handbooks; however, in certain rhetorical contexts and for specific purposes, these rules may be broken.

The following is a short guide to get you started using commas. This resource also includes sections with more detailed rules and examples.

Quick Guide to Commas

1. Use commas to separate independent clauses when they are joined by any of these seven coordinating conjunctions: *and, but, for, or, nor, so, yet.*

2. Use commas after introductory a) clauses, b) phrases, or c) words that come before the main clause.

3. Use a pair of commas in the middle of a sentence to set off clauses, phrases, and words that are not essential to the meaning of the sentence. Use one comma before to indicate the beginning of the pause and one at the end to indicate the end of the pause.

4. Do not use commas to set off essential elements of the sentence, such as clauses beginning with *that* (relative clauses). *That* clauses after nouns are always essential. *That* clauses following a verb expressing mental action are always essential.

5. Use commas to separate three or more words, phrases, or clauses written in a series.

6. Use commas to separate two or more coordinate adjectives that describe the same noun. Be sure never to add an extra comma between the final adjective and the noun itself or to use commas with non-coordinate adjectives.

7. Use a comma near the end of a sentence to separate contrasted coordinate elements or to indicate a distinct pause or shift.

8. Use commas to set off phrases at the end of the sentence that refer back to the beginning or middle of the sentence. Such phrases are free modifiers that can be placed anywhere in the sentence without causing confusion.

9. Use commas to set off all geographical names, items in dates (except the month and day), addresses (except the street number and name), and titles in names.

10. Use a comma to shift between the main discourse and a quotation.

11. Use commas wherever necessary to prevent possible confusion or misreading.

Figure 16   Guide to commas 2011

Unfortunately, it's the same wall of words that was in the previous version. This so-called Quick Guide to Commas is not going to be at all helpful *to the kind of student that needs help with commas*. If the weak writer manages to get past

#4, consider if he or she will be able to interpret cryptic language such as "coordinate adjectives" in #6, or "contrasted coordinate elements" in #7, or #8's "Use commas to set off phrases at the end of the sentence that refer back to the beginning or middle of the sentence. Such phrases are free modifiers that can be placed anywhere in the sentence without confusion." Even *I* don't know what they're talking about without an example. The basic writer is likely to say "Huh?" or some other choice words that one shouldn't say in front of children. There's nothing "quick" about this Quick Guide because the language is so dense and difficult. This negative experience with what was supposed to be "quick," and therefore presumably easy, will very likely discourage the student from clicking on the next section, Extended Rules for Commas. This is quite tragic because there, finally, is where the examples have been hidden:

6. Use commas to separate two or more coordinate adjectives that describe the same noun. Be sure never to add an extra comma between the final adjective and the noun itself or to use commas with non-coordinate adjectives.

Coordinate adjectives are adjectives with equal ("co"-ordinate) status in describing the noun; neither adjective is subordinate to the other. You can decide if two adjectives in a row are coordinate by asking the following questions:

- Does the sentence make sense if the adjectives are written in reverse order?
- Does the sentence make sense if the adjectives are written with *and* between them?

If you answer yes to these questions, then the adjectives are coordinate and should be separated by a comma. Here are some examples of coordinate and non-coordinate adjectives:

```
He was a difficult, stubborn child. (coordinate)
They lived in a white frame house. (non-coordinate)
She often wore a gray wool shawl. (non-coordinate)
Your cousin has an easy, happy smile. (coordinate)
```

Figure 17   Extended rules for commas

7. Use a comma near the end of a sentence to separate contrasted coordinate elements or to indicate a distinct pause or shift.

He was merely ignorant, not stupid.

The chimpanzee seemed reflective, almost human.

You're one of the senator's close friends, aren't you?

The speaker seemed innocent, even gullible.

Figure 18   Extended rules for commas 2

The examples make the verbiage comprehensible. The problem of students not sticking around long enough to learn about, and possibly even conquer, the troublesome comma could be rectified by changing the topic names. Extended Rules for Commas could become: Commas Explained, with Examples. Quick Rules for Commas could be relabeled: Comma Rules for Nerds.

The OWL's new look has altered two prominent visual elements, with mixed results. The oddly metallic tool bar
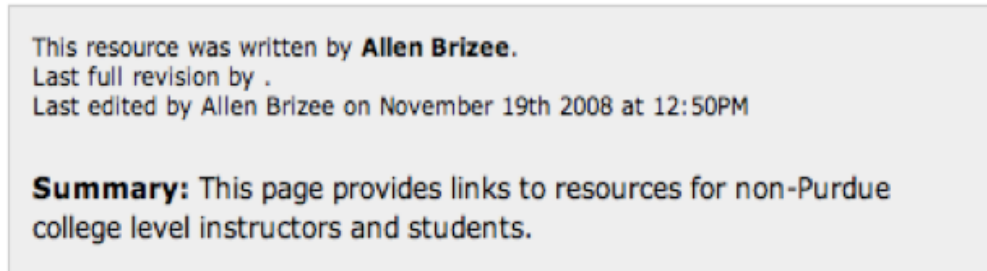
Figure 19   Toolbar 2010

has dropped a few icons, adopted the general color scheme, and added convenient forward and back buttons:

Figure 20   Toolbar 2011

The box that is of interest only to the site's developers

This resource was written by **Allen Brizee**.
Last full revision by .
Last edited by Allen Brizee on November 19th 2008 at 12:50PM
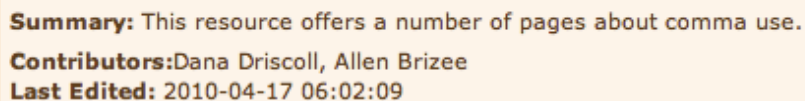
Summary: This page provides links to resources for non-Purdue college level instructors and students.

Figure 21   Contributor box

is still prominently displayed, adding to visual noise for the user, but it too has

taken on the color scheme and so does not demand quite so much attention.

The time the page was edited, down to the minute, was irrelevant to the user

before, but, curiously, instead of minimizing the intrusion of this information in

the writing and grammar space, we are now able to know by whom the page

was last edited and when, not just to the day or hour or minute, *but to the very*

second.

Commas: Quick Rules

Summary: This resource offers a number of pages about comma use.
Contributors: Dana Driscoll, Allen Brizee
Last Edited: 2010-04-17 06:02:09

Figure 22   Contributor box 2011

Purdue generously offers its OWL to help students just as their tagline indicates– entirely for free and available 24 hours a day, seven days a week. My critique is not meant to imply any ingratitude, any lack of appreciation for their effort and dedication; they are trying their best and do provide an extremely valuable resource not only for students, but for scholars, business and freelance writers, and anyone who has a quick question or needs a refresher on proper grammar, punctuation, mechanics, or reference styles. Purdue's OWL will likely remain the best free resource available for supplemental online writing instruction. Another resource, though not free, is now available to students needing more extensive lessons than can be found in the OWL: textbook publishers' interactive instructional programs.

CHAPTER 5   USABILITY PRINCIPLES AND MYCOMPLAB

MyCompLab's Initial Performance

One of the most popular textbook online supplemental programs is Pearson's MyCompLab. An access code is included with the purchase of a new grammar handbook; students who buy used textbooks have the option of buying an access code online (once they stop grumbling about the additional cost and asking over and over if they really need it).

MyCompLab in 2007 was packed with features and enthusiastically marketed to first-year composition instructors as the ultimate teaching and learning resource. In reality, it was a usability nightmare. Although MyCompLab's design was visually appealing and appeared to be straightforward, navigation proved difficult and confusing, not only for resistant and motivated students alike, but even for highly motivated instructors. For example, lessons on various topics were grouped in one section, while corresponding exercises, modified ESL exercises, and multimedia tutorials were scattered throughout unconnected, remote parts of the site. Additionally, once the user arrived at a particular section, it was difficult to back out and return to the original topic list. Navigation choices were unclear– following a seemingly promising exit strategy often led the user further into the labyrinth. After several unsuccessful attempts–

which resulted in ever mounting frustration and irritation–the most expedient solution became quitting and starting over. Such a negative user experience provoked many complaints, to which the company responded by offering online text chat, email, and phone support with company representatives, and finally additional on-campus training sessions for instructors. None of these was a viable solution to MyCompLab's poor design, however, as teachers still found the site unwieldy. They also remained burdened with the task of then attempting to explain the program's non-intuitive features to their students, who are notoriously uninterested in struggling with anything that involves "extra homework," especially when it's intended to teach them a subject they don't want to spend their time learning. Not surprisingly, many instructors just opted not to use the over-hyped program at all.

Eventually Pearson got the message that MyCompLab's problems were not the fault of technology-challenged instructors and lazy students, but that their product was a failure. The program did not merely fail to provide a satisfying user experience, but it succeeded spectacularly in generating animosity towards the company. As a result, MyCompLab underwent a complete overhaul.

MyCompLab's User-Centered Redesign

Thankfully, the new version largely adheres to the principles of user-centered design. To summarize key program design principles:

- The user should feel in control of the experience, which the site or program assures will be positive.

- The user's real-world circumstances and needs should always be considered.

- Both information and navigation should be clear, concise, and consistent.

- Information in any given window should be supportive of the user's task.

- The user should be able to select from clear routes to perform a particular task; breadcrumbs leading back to previous pages should be prominent. Where appropriate, a mechanism such as "exit," "undo," or "cancel" should be available in the event of mistakes without trapping the user in extended dialogue windows or leading to a dead end.

- Features should be largely self-explanatory, and tool tips should pop up when the user hovers over an icon, button, or tab. Since cognitive overload fatigues and discourages users, the need for help and documentation should be assiduously minimized.

- Reducing errors should be a high priority: responses should be

constrained (without overly limiting choices), and the program

should guide users down the correct path.

- Providing adequate feedback is important: users should have

    confirmation that they were successful. Buttons should change

    color or appear pressed in, and new pages, while maintaining a

    consistent design theme, should be easily distinguishable from the

    previous page.

After the login page, the student is presented with two options: to either join a

course set up by the instructor (this requires a class access code) which provides

a customized schedule of assignments and records the student's test scores for

viewing by the instructor, or to work independently. The second choice provides

a useful backup plan in the event that the student has lost the access code or if,

for whatever unknown reason, it doesn't work. Providing the option for students

to work independently rather than *requiring* the instructor to set up a list of

assignments for the entire class offers expediency and flexibility, as students of

varying degrees of grammatical competence can choose topics to study

according to their highest priorities or their instructor's recommendations. Note

the Zen-like simplicity of this initial page: the expansive use of white space

against a dark background focuses the user's attention, avoids distracting

elements, and sets the tone for the new MyCompLab experience—one that

promises to be uncomplicated and user-friendly.

Figure 23   MyCompLab – initial choice

Joining the instructor's course brings the student to a home page that offers easily distinguishable choices. The design uses color that capitalizes on the user's intuitive knowledge of computer conventions. Headings in black type, for example, are used to categorize areas of interest; subheadings appear in gray, while phrases in blue link to other relevant pages. Abundant white space and a judicious use of icons make choices clear. A few select topics—those of primary interest to students—stand out in orange, the complementary color for dark and blue violet, providing the greatest visual contrast and drawing the user's attention.
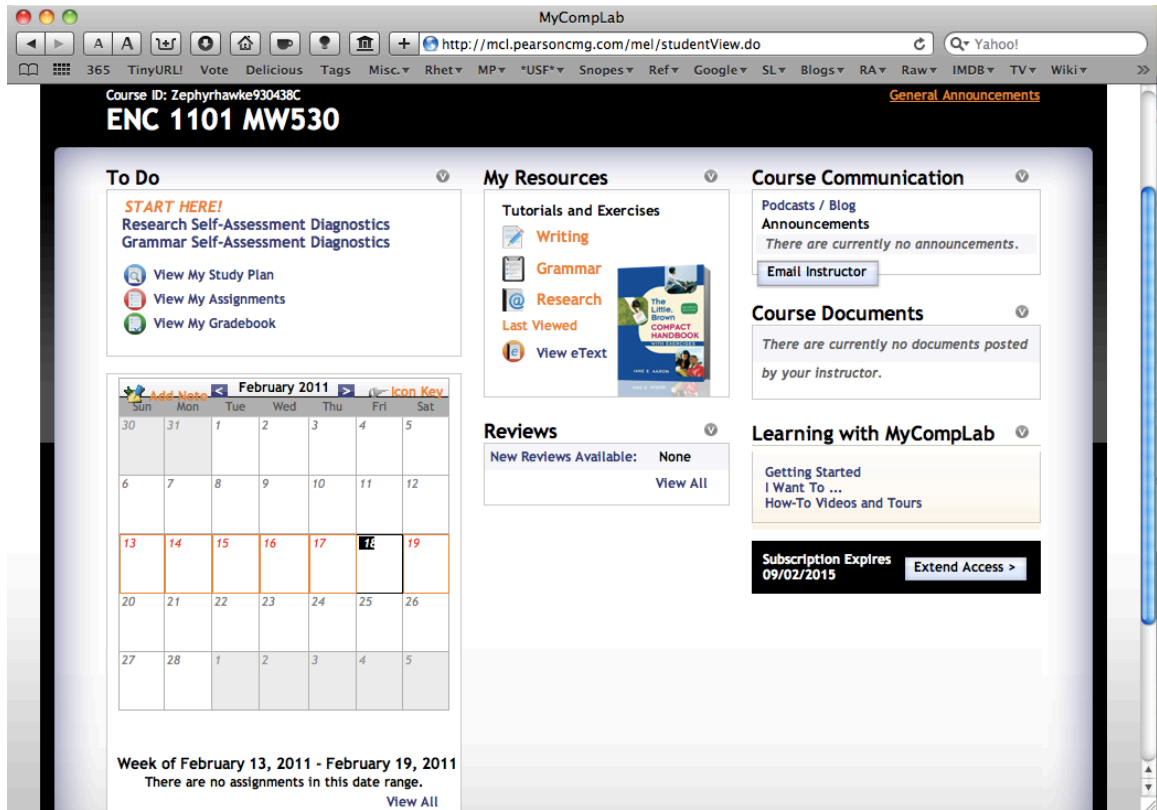
Figure 24   MyCompLab Home page

As students complete assigned exercises, the instructor can see their scores plus

the time they spent working on the assignments:

Figure 25   MyCompLab– instructor view

The "Work on Your Own" option brings the user to another Zen-like page of

initial choices:

Figure 26   MyCompLab "Work on Your Own" choices

While so much blank space may seem "wasteful" or inefficient, the practice

serves several purposes. This design is visually calming as opposed to

stimulating, leading the user to begin the introductory experience feeling relaxed

and reassured rather than overwhelmed and possibly even confused. The white

space invites the user to *take in* information rather than tune it out, fostering

confident exploration of the limited options presented. Clicking on "View eText,"

in the MyCompLab program for my classes, opens a separate window containing

the digital version of the *Little, Brown Compact Handbook*. Students then know

that their handbook is conveniently available for consultation at all times, with

clickable chapter headings and subheadings that lead to the desired information

instantaneously, without having to flip through printed pages of small print

scanning for keywords. Unfortunately, the next button, "View Media Index," still

contains flaws that recall the former MyCompLab disaster. After clicking on this

button, a list of topics appears in a separate window– so far, so good:
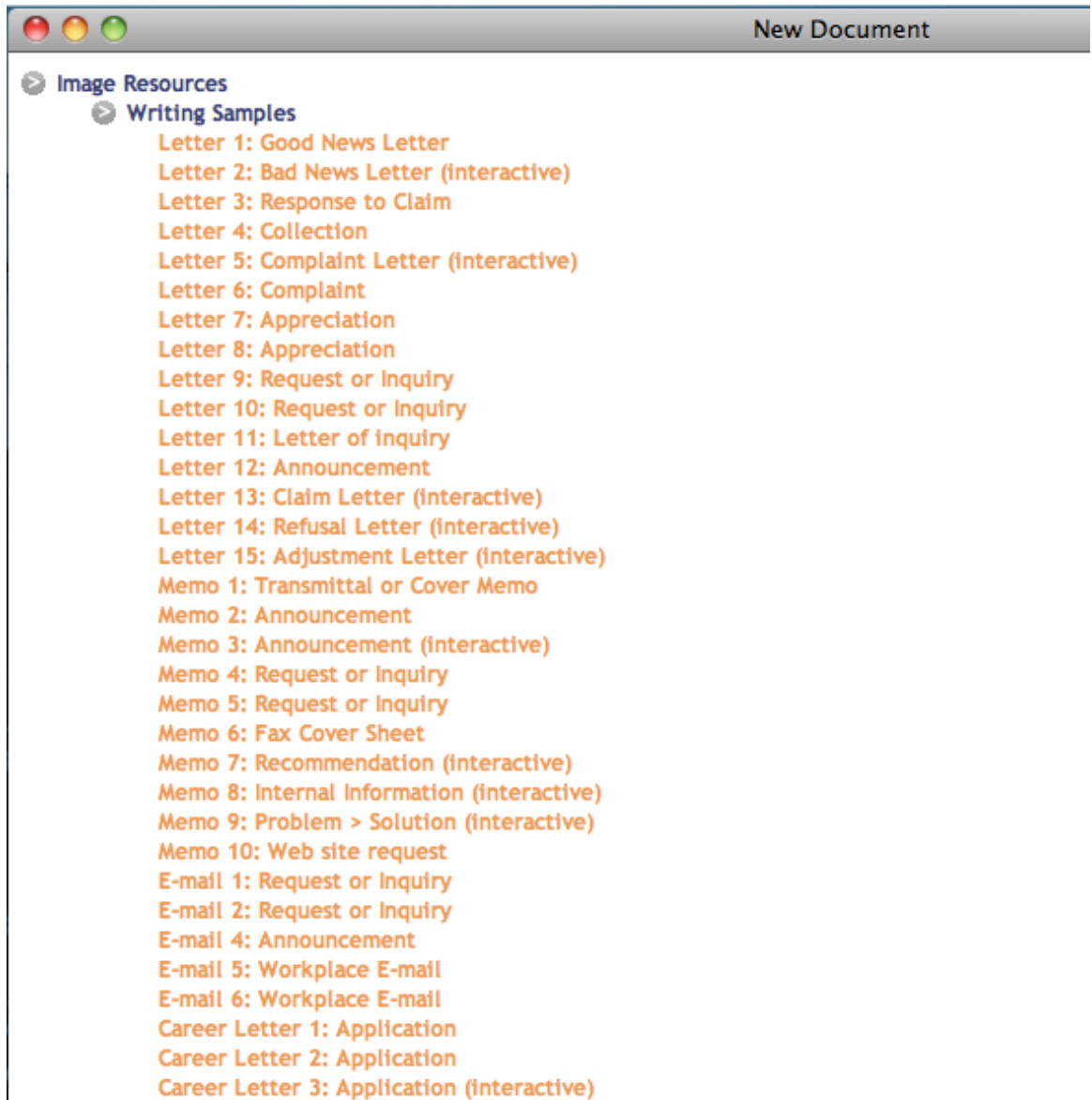
Figure 27   View Media Index 1

Figure 28   View Media Index 2

But clicking on the links on this index page provides inconsistent results. Those in

this first section open sample documents in a separate window, but others, such

as those under the headings "Research Writing Samples" and "Image-based

Exercises," do not open in a separate window, but instead hijack the Resources

page. The separate window disappears, as does–at first glance–the Resources

page, although actually only the Resources *pane* has been taken over, as it is

now filled with the requested sample. The student who was merely exploring

may then try using the browser window's back button to return to familiar

territory. This unexpected result could inhibit further exploration, which is

unfortunate because valuable resources–which once again open in a separate

window–appear further down on the Media Index page, such as the extensive list

of grammar video tutorials:

Informational Graphics
Grammar Video Tutorials
Common Grammar Errors: 2. Lack of Pronoun-Antecedent Agreement
Common Grammar Errors: 3. Lack of Subject-Verb Agreement
Common Grammar Errors: 4. Faulty Shift in Tense
Common Grammar Errors: 5. Pronoun Reference Problems
Common Grammar Errors: 6. Pronoun Case Problems
Common Grammar Errors: 7. Sentence Fragments
Common Grammar Errors: 8. Double Negatives
Common Grammar Errors: 9. Fused (Run-On) Sentences
Common Grammar Errors: 10. Dangling or Misplaced Modifiers
Common Grammar Errors: 11. Wrong Verb Tense or Verb Form
Common Grammar Errors: 12. Adjective-Adverb Confusion
Common Grammar Errors: 13. Missing or Unnecessary Commas
Common Grammar Errors: 14. Misusing the Apostrophe
Common Grammar Errors: 15. Transitions
Common Grammar Errors: 16. Spelling Errors
Common Grammar Errors: 17. Lack of Parallel Structure
Common Grammar Errors: 18. Capitalization Errors
Common Grammar Errors: 19. Wordiness and Redundancy
Common Grammar Errors: 20. Preposition Problems
Writing in Action Series: Using Style and Grammar Checkers
Writing in Action Series: Comma Problems and Word Processing
Writing in Action Series: How to Recognize Apostrophe Problems
Writing in Action Series: Exploring Appropriate Language
Writing in Action Series: Learning What Pronouns to Use

Figure 29   View Media Index 3

Although the "Research Writing Samples" and "Image-based Exercises" links do not behave as expected but open in the Resources window, the observant student will probably notice that the three original choices–Writing, Grammar, Research–still appear in the sidebar. Despite the cultural myth that young people are all computer savvy upon exiting the womb, in reality, students vary enormously in their level of computer-related competence. All can perform familiar tasks with ease, but many are stymied by unpredictable behavior and unskilled at troubleshooting. Unexpected results cause some students to give up, rather than persevere and run the risk of feeling stupid or demoralized. Typically, these are the very students who need the most help with basic skills in English.

If all goes well, after some exploration the student will return to the designated task and click on the Grammar heading, which reveals this submenu:
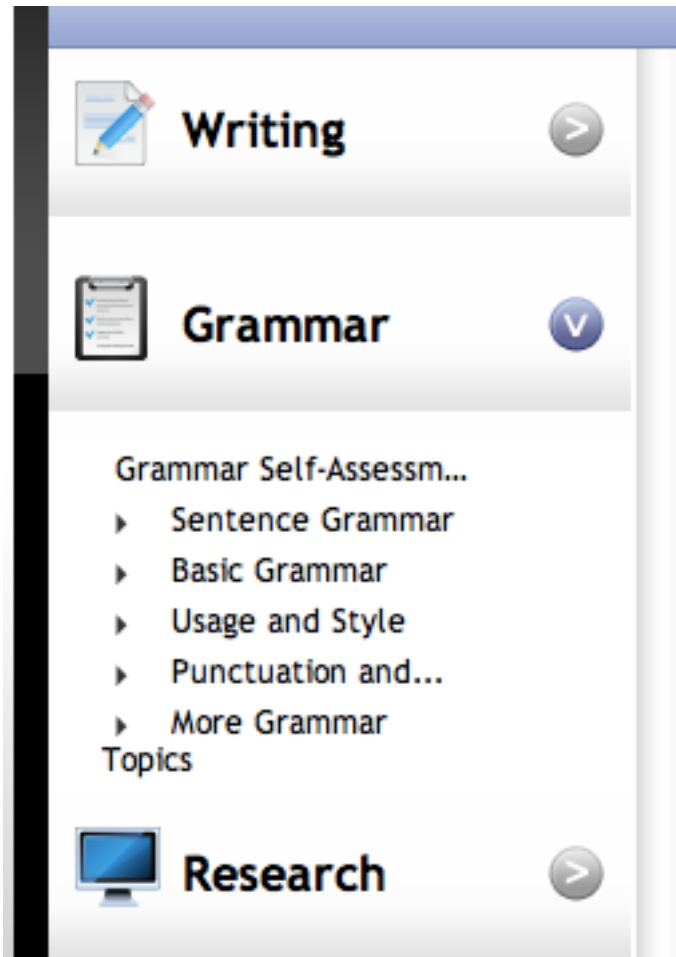

Figure 30   Grammar submenu

Clicking on the arrows next to the limited topics expands or contracts the list into manageable chunks. These lists makes it easier for them to find terms they're looking for without visual overload, and they are also likely to recognize terms they have heard in class or seen written in the margins of their papers, as well as those specifically assigned by their professors. The key to good program

design is avoiding cognitive overload, which can result in blindness to what may

be right before the user's eyes.
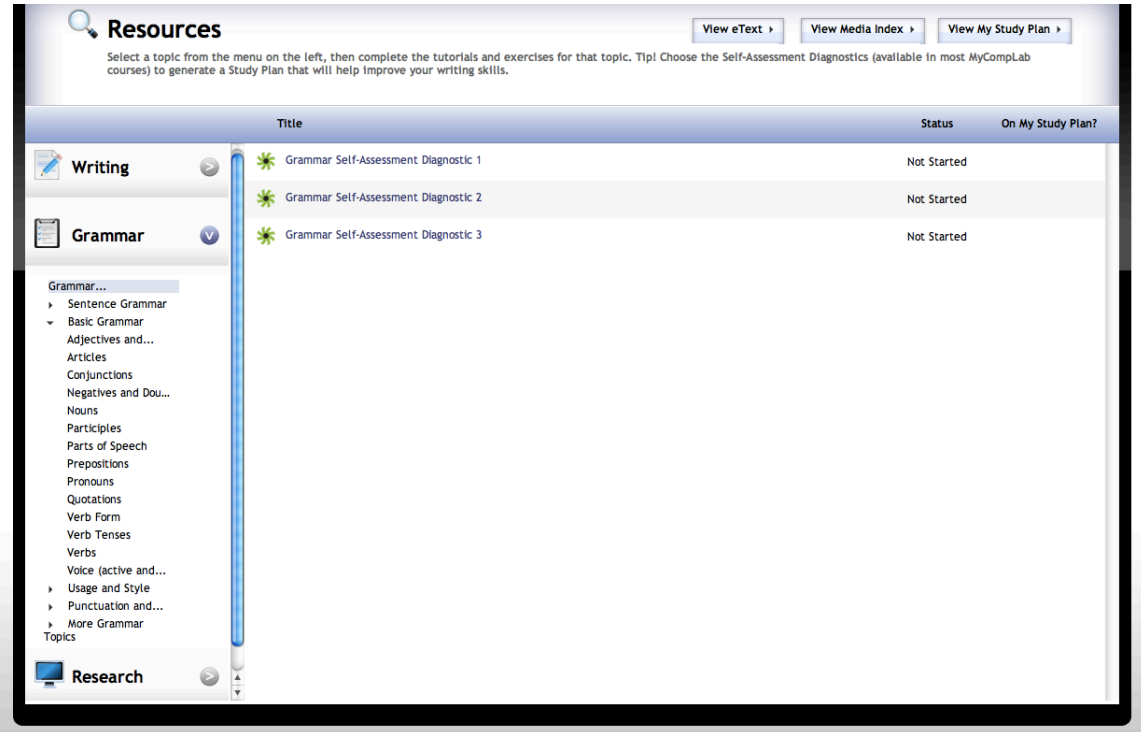
Figure 31   Avoiding cognitive overload with white space

The first choice under "Sentence Grammar" brings information about "Clauses

and Phrases" into the Resources pane:

Figure 32   Resources page

The book icons, in attention grabbing red, indicate instruction. This instruction is presented clearly, illustrated with examples, and followed by a quick, two-option exercise to test comprehension:
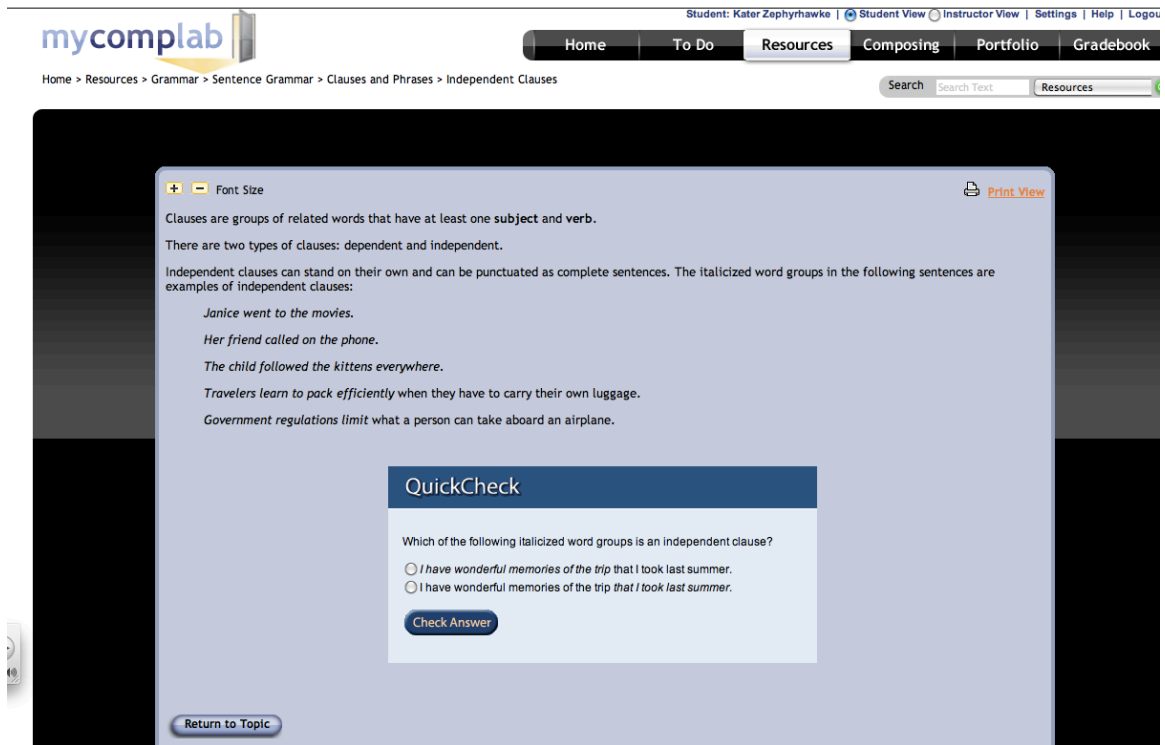
Figure 33   Quick Check

Note the "Return to Topic" button in the lower left corner, which returns the user to the page listing topics for instruction and their corresponding exercises. The green pinwheel icons link to these exercises. Unfortunately, the new MyCompLab retains a design flaw from the previous version, violating a basic principle of good usability: the design does not include an "escape" or "cancel" option. Once an exercise is started, the user cannot opt not to continue, as the "Return to Topic" button is gone– the only choice offered is "Next Question."
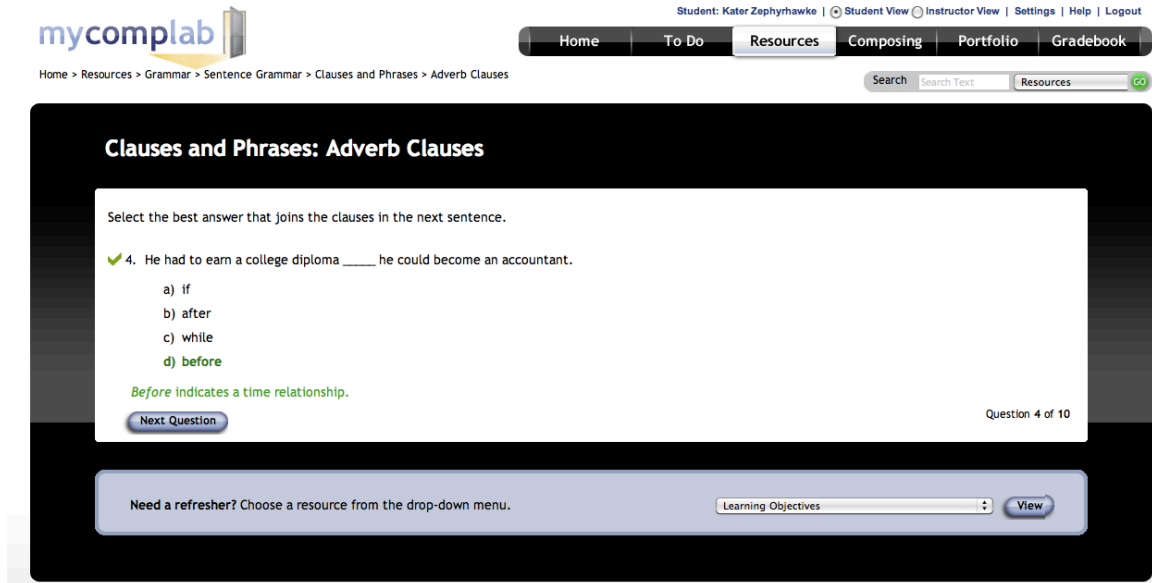
Figure 34   Next Question design flaw 1

Presumably this design choice intended to prevent the student from erasing

wrong answers and skewing test results, yet a "Save for Later" option would

rectify the problem. As it stands, the student is not in control, but constrained by

the program, coerced into completing a set of questions he or she may not have

prepared for or does not have time for. Using the browser's back button, a

common and familiar strategy, does not return the user to the Resources page,

but brings up this window with a single option:

Figure 35   Next Question design flaw 2

The user can only escape by stepping back through browser history enough times to return to the list of topics, effectively outsmarting the program's attempt to force completion of the exercise. Although this solution works, the attempted coercion detracts from a positive user experience and colors the student's attitude towards the program. Negative experiences such as this reduce the likelihood that a student will return to the site willingly.

On the positive side, the interactive exercises are well thought out and appear to be in the target range of comprehension for a majority of students. Instruction is simply and clearly stated, as in this example on dependent clauses:
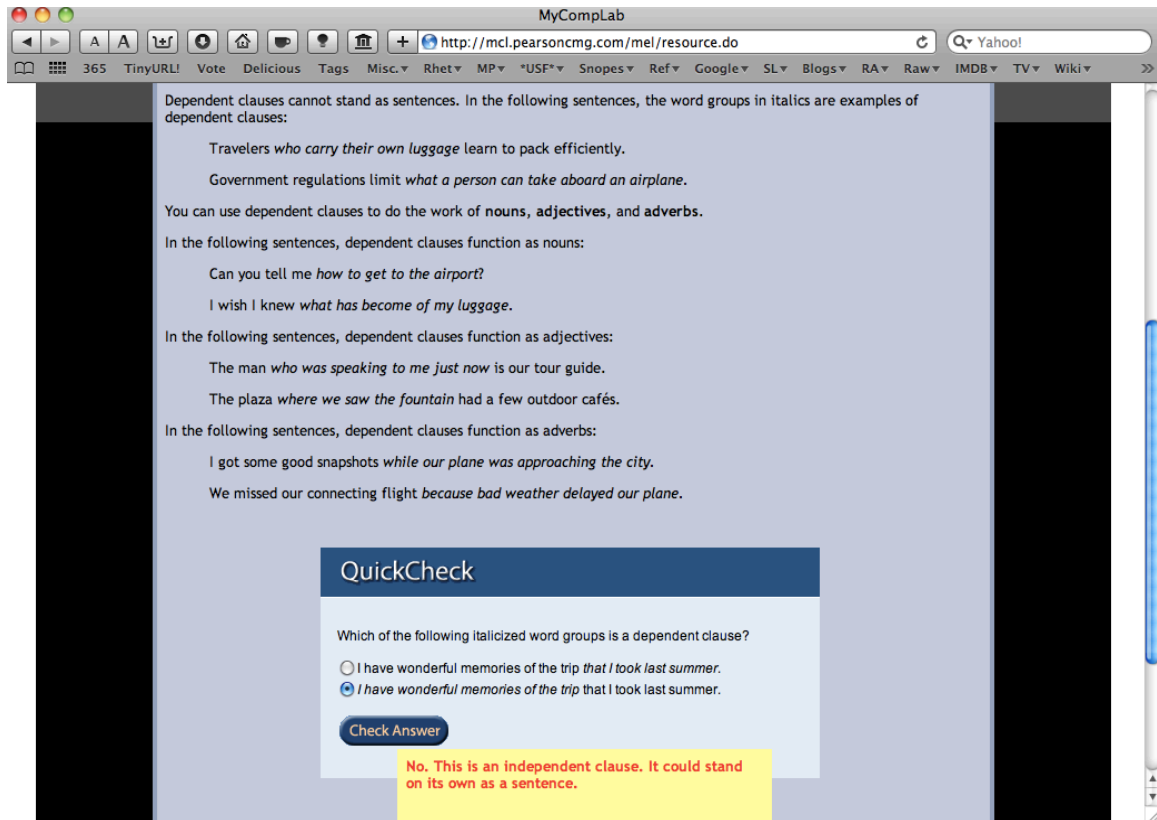
Figure 36   Clear instruction with pop-up

Note that a wrong answer on the QuickCheck prompts a pop up window

explaining why it is wrong. Correct answers prompt similar reinforcement of the

principle.

The program provides clear and immediate feedback on each answer

before the user can proceed to the next question. Concise explanations are given

for both correct and incorrect answers in the quizzes, reinforcing the learning

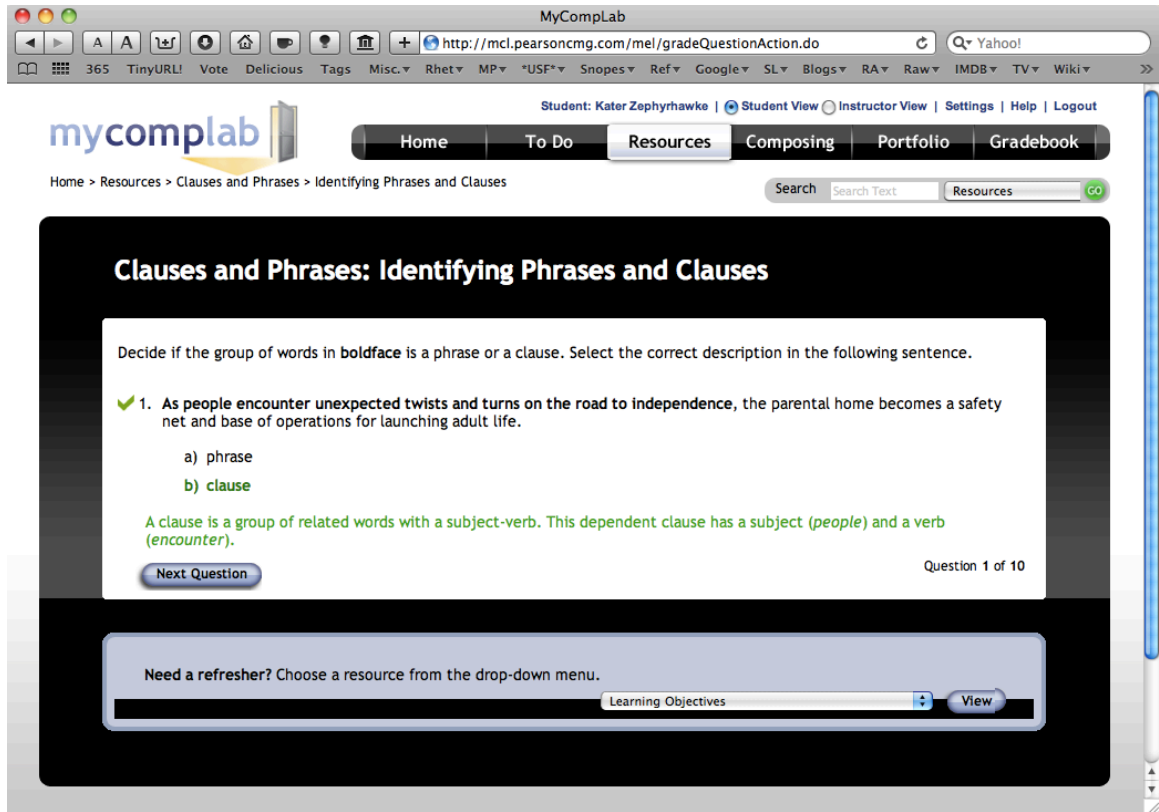process with each succeeding question:

Figure 37   Immediate feedback

At any time during the quiz, the student can choose from several options for a "refresher" in a drop down menu:
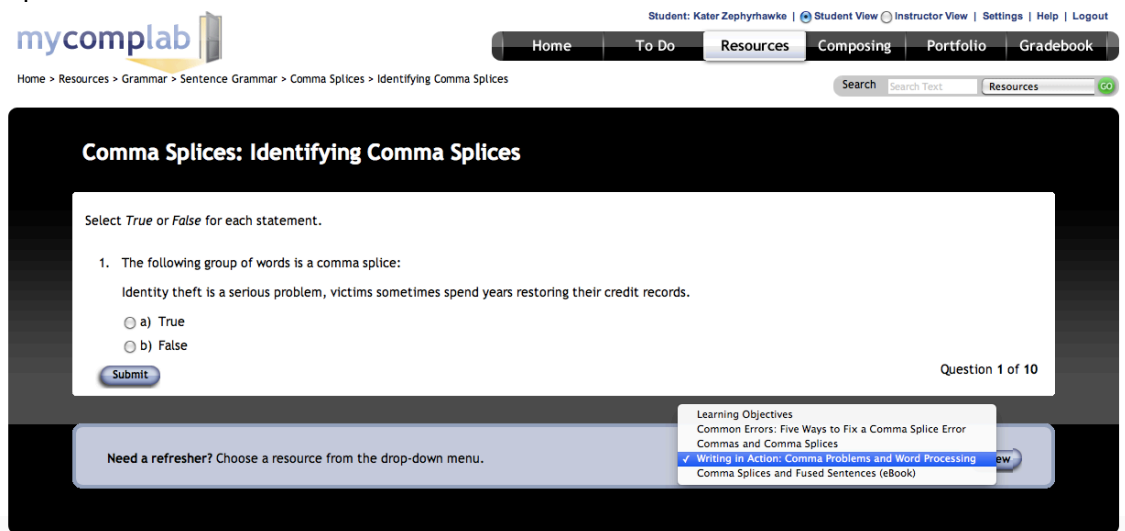

Figure 38   Refresher dropdown menu

Some options are static text, and others are short, multimedia presentations, as illustrated by this "Writing in Action" video screenshot:
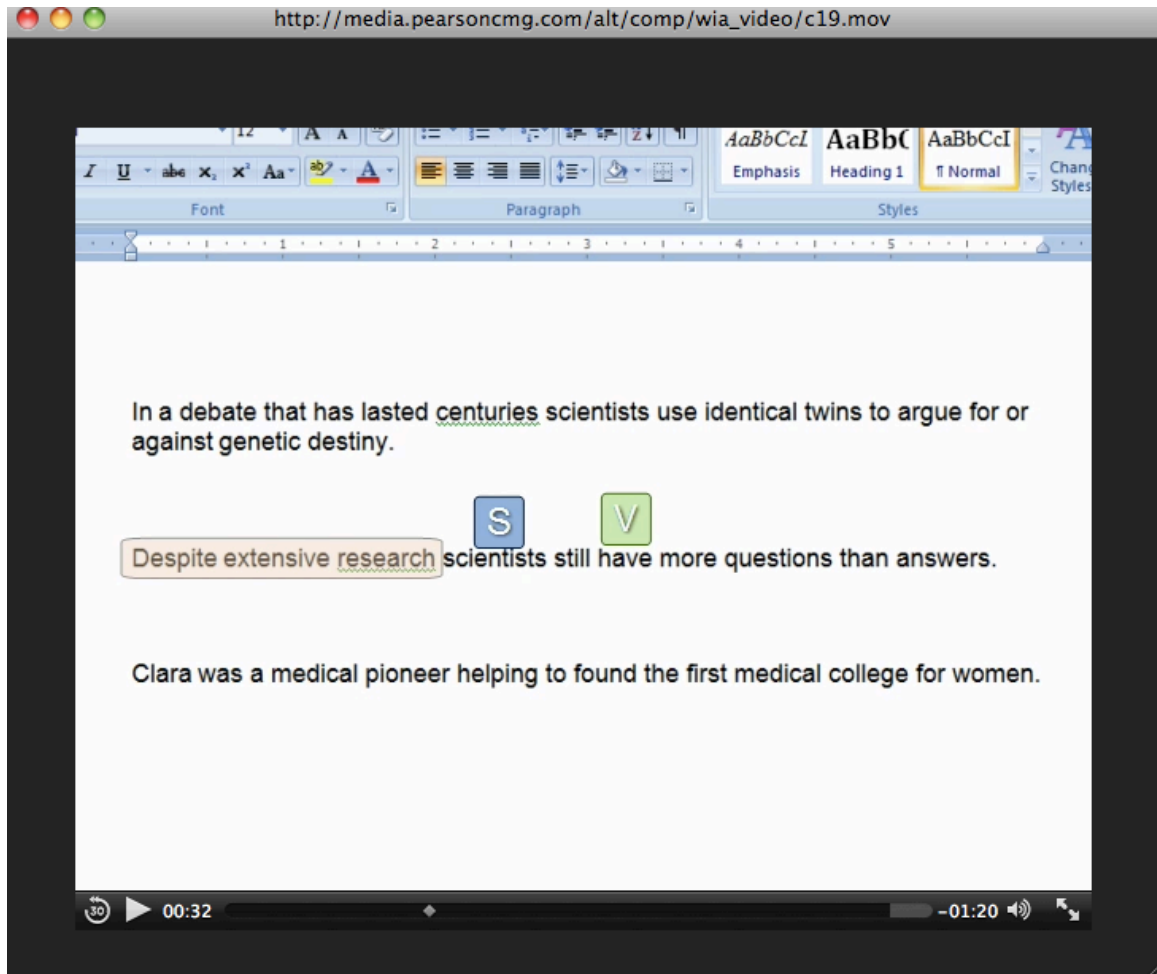

Figure 39   Video screenshot

Refresher choices also include audio accompanied by text, which gives the user three possibilities: listening, reading, or reading along while listening. In addition to accommodating individual learning styles, choices like these give the user a greater sense of control. The designers could have chosen to have the audio play

automatically, but many people find an unexpected voice emerging from the screen annoying, intrusive, and sometimes inconvenient. Although the user can mute the computer's sound, the experience will be a negative one. Giving the user choices and a sense of control increases the likelihood of a positive assessment of the program. While the following screenshot
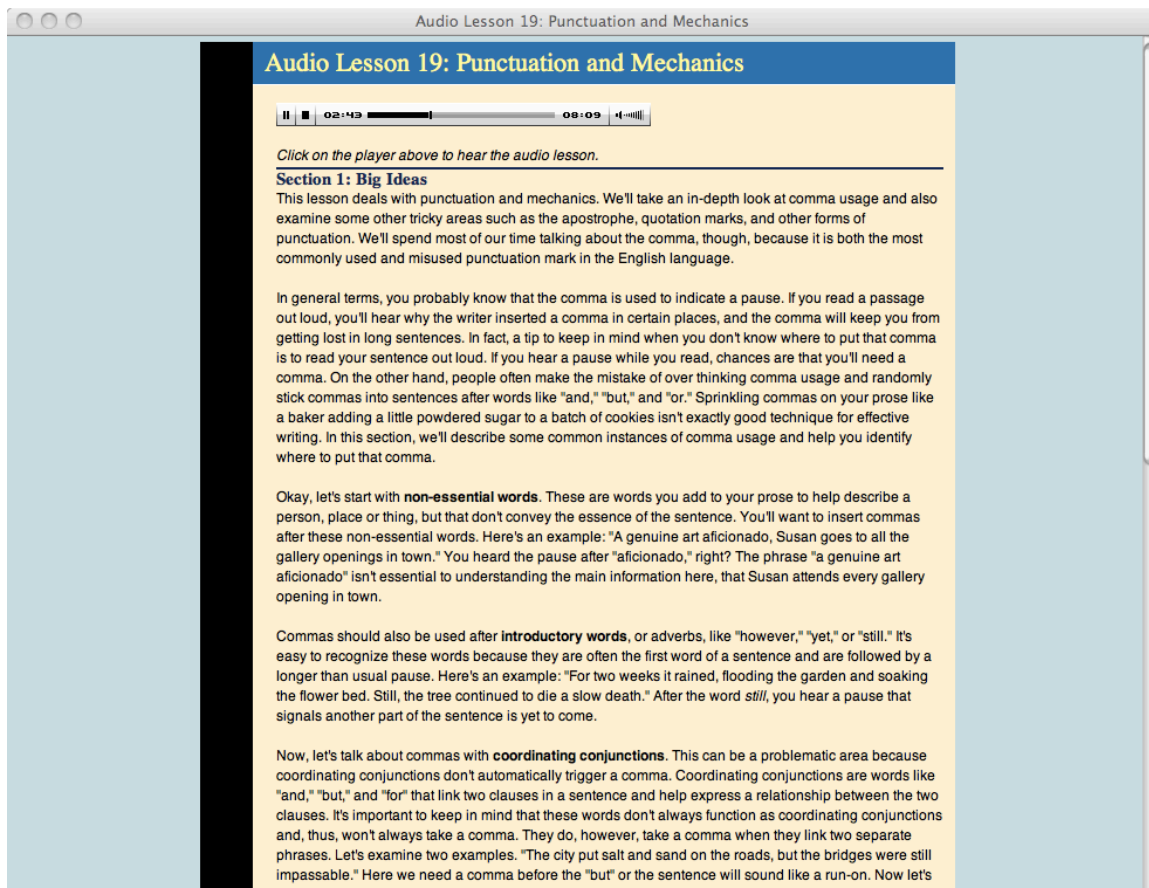

Figure 40   Audio lesson

is, strictly speaking, a "wall of words," the friendly, conversational style alleviates some of the dread the student is likely to feel when approaching the tedious topic of punctuation.

MyCompLab's instructional materials are generally written in an accessible, congenial style, using language the student is familiar with (except for grammatical terms, a necessary evil), and often addressing the student through use of the second person. Video tutorials often contain audio of question and answer scripts, presenting a mini one-act play of a teacher explaining the quirks and vicissitudes of English grammar to a confused but earnest student.

After completing a quiz, the student can view (or print) the entire ten-question test and see all right and wrong answers accompanied by explanations that are slightly more detailed, yet still easy to understand:

Figure 41   Test answers– right , with explanations

X 3. Which of the following is a compound sentence?

    a) Her mother was executed on false charges of adultery, so Elizabeth was then declared illegitimate.

    b) After her mother was executed on false charges of adultery, Elizabeth was then declared illegitimate.

    c) Elizabeth was declared illegitimate, after her mother was executed on false charges of adultery.

    d) Elizabeth was declared illegitimate when her mother was executed on false charges of adultery.

A compound sentence consists of two or more independent clauses. These clauses may be connected by either a coordinating conjunction or a semicolon with or without a conjunctive adverb. In this case, the two independent clauses are connected by a comma and the coordinating conjunction *so*. The two incorrect choices are complex, not compound, sentences.

X 4. Which of the following is a compound sentence?

    a) Elizabeth I never married, so she was known as "the Virgin Queen."

    b) Elizabeth I, known as "the Virgin Queen," never married.

    c) Because Elizabeth I never married, she was known as "the Virgin Queen."

    d) Elizabeth I was known as "the Virgin Queen" because she never married.

A compound sentence consists of two or more independent clauses. These clauses may be connected by either a coordinating conjunction or a semicolon with or without a conjunctive adverb. In this case, the two independent clauses are connected by a comma and the coordinating conjunction *so*. One of the incorrect choices is a sentence containing an appositive set off by commas, and the other incorrect choice is a complex sentence with a dependent clause beginning with *Because*.

Figure 42   Test answers– wrong, with explanations

MyCompLab's redesign probably saved the program from extinction. It now lives up to its expectations and has become a useful resource for students who lack the grammar and punctuation skills they were supposed to have mastered in high school. Students who actually make the time to use it give it high ratings, often commenting that the program makes learning grammar a lot easier and more interesting.

More extensive research, such as observing students using Purdue's OWL or Pearson's MyCompLab followed by a survey or interview, is needed to elucidate ways these websites can be further improved to become the truly valuable resources they have the potential to be, and might uncover some unexpected reasons students don't learn as much as we wish they would.

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CHAPTER 6   CONCLUSION

Computers are no longer optional in post-secondary education; students are expected to be computer literate and to own or have access to a computer. Online communication among students, faculty, and administration is expected, and using a content management system such as Blackboard is now required. But technology used in education is both a blessing and a curse. Done well, technology facilitates a positive college experience, but done poorly, it can contribute to frustration, resistance, and alienation. College administration and department websites can be maddeningly and absurdly difficult to navigate. Library websites have too high a learning curve for undergraduates; as a consequence, many students are unable to use them well and unwilling to use them consistently. These academic websites should also be analyzed and redesigned according to principles of usability. User-centered design benefits not only the students (and faculty) using these college sites, but it also benefits the administrative staff who must otherwise spend time answering questions and serving as back up for the many errors and unaccomplished tasks that result from confusing site design. When technology uses up more time than seems reasonable, it's more likely that study time rather than leisure time will be sacrificed to compensate.

And study time is something most American students should not be

sacrificing. In December 2010, the results of the *Program for International*

Student Assessment, or PISA, shocked American authorities in education, even

though they were already well aware of decades of declining academic

performance in primary and secondary schools. Administered by the Paris-based

Organization for Economic Cooperation and Development, the test was given to

thousands of 15-year-old students in 65 countries in North America, Europe,

Eastern Europe, and Asia. Scientifically validated for reliability, the test measures

students' ability to demonstrate thinking skills and apply their knowledge to novel

situations. In other words, this measurement gives a better indication of how

these students will be able to perform in the real world as opposed to school,

where knowing just enough to get the answers right on a test is–to many of

them–all that matters. Students from Shanghai topped the list in all three

categories–science, reading, and math–with scores 20 to 40 points above the

country achieving second place. Asian countries generally outperformed Western

countries with the exception of Finland. The United States fell into the middle or

lower third in every category:

TABLE 4: An international education test, performance by country

An International Education Test

The Organization for Economic Cooperation and Development has released the results of its 2009 PISA (Program for International Student Assessment) test of 15-year-old students in 65 countries.
In the Math and Science tests, all participating regions of China outperformed the United States.

SCIENCE	PISA SCORE	READING	PISA SCORE	MATH	PISA SCORE
Shanghai, China*	575	Shanghai, China	556	Shanghai, China	600
Finland	554	Korea	539	Singapore	562
Hong Kong, China	549	Finland	536	Hong Kong, China	555
Singapore	542	Hong Kong, China	533	Korea	546
Japan	539	Singapore	526	Taiwan	543
Korea	538	Canada	524	Finland	541
New Zealand	532	New Zealand	521	Liechtenstein	536
Canada	529	Japan	520	Switzerland	534
Estonia	528	Australia	515	Japan	529
Australia	527	Netherlands	508	Canada	527
Netherlands	522	Belgium	506	Netherlands	526
Taiwan	520	Norway	503	Macao, China	525
Germany	520	Estonia	501	New Zealand	519
Liechtenstein	520	Switzerland	501	Belgium	515
Switzerland	517	Poland	500	Australia	514
Britain	514	Iceland	500	Germany	513
Slovenia	512	United States	500	Estonia	512
Macao, China	511	Liechtenstein	499	Iceland	507
Poland	508	Sweden	497	Denmark	503
Ireland	508	Germany	497	Slovenia	501
Belgium	507	Ireland	496	Norway	498
Hungary	503	France	496	France	497
United States	502	Taiwan	495	Slovakia	497
AVERAGE SCORE	501	Denmark	495	AVERAGE SCORE	497
Czech Republic	500	Britain	494	Austria	496
Norway	500	Hungary	494	Poland	495
Denmark	499	AVERAGE SCORE	494	Sweden	494
France	498	Portugal	489	Czech Republic	493
Iceland	496	Macao, China	487	Britain	492
Sweden	495	Italy	486	Hungary	490
Austria	494	Latvia	484	Luxembourg	489
Latvia	494	Slovenia	483	United States	487
Portugal	493	Greece	483	Ireland	487

*In the study, China was represented by the city Shanghai and by the administrative regions Hong Kong and Macao.

The December 7, 2010 *New York Times* article accompanying this table quotes U.S. Secretary of Education Arne Duncan as saying: "We have to see this as a wake-up call. . . . I know skeptics will want to argue with the results, but we consider them to be accurate and reliable, and we have to see them as a challenge to get better. . . . The United States came in 23rd or 24th in most subjects. We can quibble, or we can face the brutal truth that we're being out-educated" (Dillon 1).

Yes, the truth is brutal indeed for a country that has always prided itself as being superior to all others. But perhaps this kind of national face slap is just what we needed. In 1961, when the Russians beat America by being the first to put a man in space, our country was spurred to action and began prioritizing education and science programs. We need that kind of national unity once again so that bickering opponents from every corner of the educational debate will put aside their own agendas and work together towards finally solving the crisis in education. We can no longer continue to rest on our laurels and believe America is "the greatest nation on earth" while we rapidly fall behind the economic and educational performance of previously "underdeveloped" nations.

American educators face an enormous task in this new global economy. We must inspire our students to take their education seriously so that they will be able to compete with students who come from countries where education is valued and from families where superior performance is not only expected, but insisted upon. This will not be easy. The "fast food" mentality has been seeping

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into every aspect of American culture for decades, gradually undermining the cultural ethos of innovation, hard work, and determination that once defined us. Adolescents in public schools, it seems, not only expect that they should not have to work very hard or very long at anything, but actively resist when anyone demands them to do so. Many K–12 teachers–pressured by intrusive parents who seem personally offended when their children receive mediocre grades or by administrators who encourage "teaching to the test" in order to receive state funding–eventually cave in to the demands or leave the profession. Parents must begin to recognize the fact that a teacher cannot force-feed knowledge to unwilling or unmotivated students. Also necessary is halting the trend to run institutions of higher learning on the corporate model, although administrators in public universities that are now scrambling for funding in the face of repeated budget cuts may see this model as the only viable solution. But decisions based on the bottom line often sacrifice traditional and vital goals of the academy, such as cultivating broad cultural knowledge, expertise, and wisdom. Sadly, this is increasingly the case, as is evidenced by Humanities departments that are steadily shrinking and even disappearing entirely. Additionally, practices that stem from commercializing universities–such as vying for students by accepting transfer credits from inferior, profit-motivated online colleges the way supermarkets accept their competitors' discount coupons–will lead to further degradation of educational quality and the true, real-world value of a college diploma. As critics of our increasingly anti-intellectual, consumption-oriented

society such as Mark Bauerlein, Maggie Jackson and Susan Jacoby fear, these

corporate-model solutions–combined with student evaluations, reduced

expectations, truncated reading requirements, and lowered standards–may

conceivably lead to an "educated" population incapable of thinking critically,

lacking in analytical skills, oblivious of history, and so uninformed and ignorant of

the world around them that our democracy will no longer be viable. If almost

half of enrolled students have improved only minimally in critical thinking,

complex reasoning, and writing in the first two years of college, as Arum and

Roksa's study shows, and if over one third of recent graduates claim they

"haven't learned much" after four years of college, then higher education–even

while it's giving student-consumers what they ask for–is clearly failing them.

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