Purdue Owl as an Aid in Revision: a Pilot Study Based on Two Tests and One Writing Assignment for an Undergraduate Online Composition One Class.

M. W. Shealy

Technical Communication and Rhetoric

Texas Tech University

mark.w.shealy@ttue.edu

Technical Communication and Rhetoric

Texas Tech University

Purdue Owl as an Aid in Revision: a Pilot Study Based on Two Tests and One Writing
Assignment for an Undergraduate Online Composition One Class.

STATEMENT OF PURPOSE

The object of this study was to determine whether Purdue OWL (online writing lab) at
https://owl.english.purdue.edu/ is useful to students in revising papers, whether revised papers
include more accurate changes to errors, and whether post-revision tests indicate a better
understanding of how to apply rules learned from the Purdue Owl site. My hypothesis was that
using simple links to Purdue OWL information on specific grammar and punctuation rules may
be both an effective teaching instrument and a useful assessment tool.

SCHOLARLY CONTEXT

As what we mean by a grammar handbook changes, the use of open-access instructional
materials through sites such as the Purdue OWL will increasingly allow students to check their
own assignments and monitor their personal learning processes online through systems that
provide feedback (Douglas Eyeman interviewed in Walker et. al., 2011, p. 330). My study
generally follows one by Mills (2012) that investigates the impact of an Internet-based program
designed to improve basic writing skills in grammar and punctuation scores on a competency test
of her design. While Mills calls for further studies that might examine control variables such as
age, gender, etc., I extend her study to the online class environment. And while there are
significant differences between my study and Mills' study, my goal is similar to hers of
determining the viability of using resources outside those generated in-class or in-institution.
OWL links are often used in Composition One classes I design for the Language & Literature
department at Gulf Coast State College in Panama City, FL, where I teach, so the question had
an immediate relevance for me. Let me qualify here that while I hope my research speaks to a
need for more generalizable studies on the subject, I realize that this pilot study d not do more
than provide data from two classes for limited analysis. Nevertheless, addition pseudo-
experimental studies of this nature may lead a greater understanding of how Purdue OWL,
OWLs in general, and—even more broadly—composition-related teaching sources outside
proprietary college computer networks may be incorporated. As online class design evolves to

accommodate a social-media-based future, such questions and studies will have immediate relevance.

Instructors in online composition classes often make use of online information outside the Learning Management System (LMS) to help students improve grammar, punctuation, and basic writing skills. Again, as online composition class design increasingly includes components outside the proprietary system, instructors must consider new ways of designing assignments and tools for assessing student learning. Obviously, education technologies (EdTech) have dramatically developed over the past 20-30 years, forcing a radical rethinking of traditional pedagogy and lesson plans for composition instruction. As use of new media increases, both infrastructural and supportive in face-to-face (f2f) and online classes, ways to effectively make use of simple, cost effective teaching tools will be increasingly in demand; and as social media develops into something beyond the current Web, the future of composition may be something like the current "cloud" in which resources and guides (both human and software) are increasingly "out there" and detached from either f2f classes or LMS systems as we know them (Walker, 2011, p.329).

If composition education and teaching resources will increasingly be outside the classroom and the LMS, there is a necessary move toward decentralization in which instructors will need to be instrumental. As Fred Kemp has noted, "Instructors are inherently and sometimes egotistically managers of the knowledge they have dominion over. There will be a somewhat painful 'letting go' of this managerial role, however, as learners increasingly need not so much a 'what' to know as a 'how' to know, and this shift will significantly affect the instructor's role" (Walker, 2011, p. 330). Likewise, the notion of the "textbook" is quickly evolving. In my Composition One classes, the department no longer assigns a textbook since instructors are assumed to have a wealth of information and teaching tools at their fingertips through the internet. Small, focused studies on the use of EdTech tools may help instructors and writing program managers more fully realize the new "open source" nature of current online education: innovations such as the OpenCourseWare (OCW) movement, MOOCs, class websites, blogs, and wikis; Skype, YouTube and embedded videos; wireless microphones, computer tablets, mobile devices, interactive whiteboards, online study; educational video games, podcasts, twitter, and social media. There seems to be no end in sight for tech-based improvements in

teaching.At the same time, students are increasingly empowered to assistant each other and work more closely with instructors to influence class design and lesson plans.

Though the role of the instructor seems to be at risk given these decentering techniques, the role but not the instructor herself is what will change most. Self-teaching in formal and informal university setting can never replace human-centered learning; instructors as facilitators, mentors, and guides can't be replaced by even the most sophisticated teaching software. Online learning demands "the reconstruction of student and instructor roles, relations and practices" (Vonderwell, 2004, p. 31) and "evaluating student learning takes on a new meaning in online classroom environment where students and instructors do not share physical proximity" (Vonderwell & Boboc 2013, p.23). Online learner participation are affected by technology characteristics experience and information overload (Vonderwell, 2007, p.225), so a lack of repetition in class design and in emulating what is offered by other college services serves both student and teacher. Assessment tools used diagnostically to "upgrade" teaching and learning will be increasingly important as a means of quickly changing class design to meet student needs in an evolving EdTech environment. Such tools include all activities in which instructors and students engage that provide information on what instructors need to rethink how they teach, how they related students, how they communicate, and how evaluating success takes place.

However, the nature of teaching is changing so quickly that such rethinking is often unrealistic; understanding how students react to inexpensive non-proprietary information sources is one way to increase instructor productivity by preventing needless repetition of information. While self-teaching using an OWL can't recreate the effectiveness of one-to-one student/instructor learning or the sort of assistance students receive in a f2f tutoring labs, such self-teaching can encourage students to efficiently review basic grammar and punctuation rules/usage and be more thorough in revising simple essays composition classes. As the nature of teaching with EdTech changes in f2f and online environments, so has classroom support through libraries and writing centers changed. Digital composition in composition classes has impacted the ways writing centers work with students, try new methods, and rethink a focus on grammatical correctness (Pantelides, 2012, p.269). Such changes extend increasingly to online writing assistance. My online classes in composition include a very integral embedded librarian component and feature a writing center module within the LMS class shell to give students easy access to research assistance and tutoring aids. In online tutoring there is an increasing

interactivity between tutor and student (Rilling, 2005, p.358), so as the online class becomes more accommodating of inter-departmental and student peer group work, a sound understanding of what works in the real world is necessary.

Unfortunately, there are relatively few studies regarding the use of online sources for composition classes in state colleges. [Questions regarding proprietary schools and commercial software are not addressed here since for-profit motives may affect the outsourcing of assessment tools and testing of student performance.] For instance, the list of scholarship and research on OWLs (listed on the OWL Scholarship and Research page of the Purdue OWL) indicates few documents within the past five years. While including useful assessments of OWL usage and development—of 39 resource citations, only eight were dated 2008 and after, and 25 were dated 2000 or earlier. The use of major library databases through EBSCO HOST or the use of Google Scholar, likewise, failed to turn up more than dozen articles on the use of OWLs in online education and even fewer on the significant Purdue OWL. As of 2009, however, a redesigned Purdue OWL has averaged over 100 million annual visits from all 50 U.S. states and over 150 countries around the world (Usability Research in the Writing Lab) (Salvo, 2009, p. 107). Testing has shown that the redesigned Purdue OWL is also more user-centered, leading to a more efficient online source of writing information (Driscoll). Therefore, while the Purdue OWL (and perhaps similar sites) seems to be more effective and increasingly used globally within all types of instructional situations, not much is known about how OWLs work and why. This gap indicates that little research has been ongoing regarding the use of OWLs generally or Purdue OWL specifically, and while there is some theory in the literature related to Purdue OWL design, there is little on the specifics or successes of its use by those outside Purdue. This microstudy addresses this gap in research on OWL use for online composition classes.

METHODS

The participants in this study were approximately 30 undergraduate students, ages 16-60, enrolled in the fall 2013 ENC1101 sections 85088 and 85089 at Gulf Coast State College in Panama City, FL (GCSC). The total number of students in the two classes was 57, but many of the students were not active, participating members in class. Also, students who did not participate correctly in the study were omitted from the data results. The sections were taught by Mark Shealy, a middle-aged white male. Students, coming from a wide range of racial, ethnic,

and cultural backgrounds with varying educational and career goals, were required to take this course as part of their degree requirements. The study included all students active in the classes; they experienced a minor change in two weeks of instruction as a result of this study.

Students were asked to take a short grammar/punctuation pretest and posttest (see appendix A and B) and to revise a 500-word midterm exam paper. The test group was be given links to Purdue Owl for help in revising; the control group was not given links to Purdue Owl for help in revising the paper. The object of this study was to determine:

1. Whether Purdue OWL information on specific grammar and punctuation rules is useful to students in revising papers.
2. Whether revised papers include more accurate changes to errors.
3. Whether post-revision tests indicate a better understanding of how to apply rules learned from the Purdue Owl site.

I assigned students a pre-test made up of 10 questions on (mostly) comma usage (and based on practice exercises from the Purdue Owl site). The pretest was due on Friday, week eight of the semester, and all students were asked to choose correctly punctuated sentences; no students were given any additional information from OWL or any other grammar rule source for the pretest. Students revised papers in the week following the pretest and were asked to take a post-revision test (identical to the first, but with different sentence content). Revisions were given to the test group with web links (using the Microsoft Word comment function) to specific OWL pages concerning comma usage and related comma/grammar questions such as run-on sentences and comma splices, etc. The control group was given papers with errors marked with the MS Word comment function but with no links. No student was informed initially that the exercise was part of a study so as to avoid unwanted factors. The revision was due one week after the pretest, week nine; the posttest was due to be taken a day after revisions were submitted. The test group completed a short survey (via Survey Monkey) after completing the revision and tests. Test result data was downloaded from the Angel (Blackboard) LMS and statistically coded using an online calculator resource.

RESULTS

Control Group -- Test One

Data Set: 100, 100, 50, 37.5, 75, 100, 100, 80, 80, 70, 90, 90, 70, 100, 87.5, 90, 90, 80, 90, 100

Basic Statistics:

Minimum: 37.5

Maximum: 100

Count: 20

Sum: 1680

Mean: 84

Median: 90

Mode: 100

Standard Deviation: 17.12

Variance: 293

Control Group -- Test Two

Data Set: 90, 90, 70, 30, 60, 90, 100, 80, 50, 60, 80, 70, 90, 90, 90, 70, 40, 90, 30, 80

Basic Statistics:

Minimum: 30

Maximum: 100

Count: 20

Sum: 1450

Mean: 72.5

Median: 80

Mode: 90

Standard Deviation: 21.24

Variance: 451.3

Test Group -- Test One

Data Set: 100, 60, 90, 60, 100, 50, 80, 80, 70, 100, 100, 100, 60, 100, 80, 90, 100, 100, 100, 100

Basic Statistics:

Minimum: 50

Maximum: 100

Count: 20

Sum: 1720

Mean: 86

Median: 95

Mode: 100

Standard Deviation: 17.29

Variance: 298.

Test Group -- Test Two

Data Set: 90, 80, 90, 50, 80, 40, 70, 70, 80, 70, 100, 100, 90, 90, 70, 80, 80, 90, 60, 80

Basic Statistics:

Minimum: 40

Maximum: 100

Count: 20

Sum: 1560

Mean: 78

Median: 80

Mode: 80

Standard Deviation: 15.42

Variance: 237.9

Control Group mean score of 78.25

Control Group median score of 85

Test Group mean score of 82

Test Group median score of 87.5

Note that both Control Group and Test Group test results went DOWN after revision. This finding is in direct contrast to what I expected—that results for the test group would go up. Because the median scores of both groups were so close (85 and 87.5), I believe that outlier high or low scores by one or two students did not affect the group mean scores. Mean scores for the two groups (78.25 and 82) were not significantly different, so I don't believe that factors such as competence, grades, etc. between the two groups played a role.

The revisions data revealed a different picture. There was a noticeable difference in how well the test group and the control group were able to correct their test papers based on whether or not they made use of Purdue OWL. There was a 12.5 point means score difference in how well students did in revisions, 71.25 for the control group versus 83.75 for the test group. Revisions were graded according to the percentage of errors (indicated on the graded paper I returned) that were corrected. Students who failed to revise under 10% of the indicated errors received a grade of 100, etc. Under 10% = 100, over 10% = 90, over 20% = 80, over 30% = 70, over 40% = 0. See data below.

REVISIONS

Control Group

Data Set: 100, 70, 90, 80, 70, 70, 80, 100, 70, 100, 70, 70, 100, 70, 0, 0

Basic Statistics:

Minimum: 0

Maximum: 100

Count: 16

Sum: 1140

Mean: 71.25

Median: 70

Mode: 70

Standard Deviation: 30.52

Variance: 931.7

Test Group

Data Set: 100, 100, 100, 90, 70, 80, 100, 100, 90, 90, 0, 90, 80, 70, 90, 90

Basic Statistics:

Minimum: 0

Maximum: 100

Count: 16

Sum: 1340

Mean: 83.75

Median: 90

Mode: 90

Standard Deviation: 24.46

Variance: 598.3

Control Group -- mean 71.25 -- median 70

Test Group -- mean 83.75 -- median 90

For the survey, I stuck to a few simple questions for the test group. See below.

SURVEY

1. How much time did you spending using Purdue OWL while revising your paper?

a. the entire time I was revising

b. part of the time I was revising

c. did not use Purdue OWL

[3 entire time -- 8 part time -- 0 none]

2. How satisfied were you with Purdue OWL as a source in revising your paper?

a. very satisfied

b. satisfied

c. somewhat satisfied

d. not satisfied

[5 very satisfied -- 4 satisfied -- 2 somewhat -- 0 not satisfied]

3. Would you use Purdue OWL again for revising papers?

a. yes

b. no

All said they would use Purdue OWL again.

What the survey indicates is that Purdue OWL was seen by students in this study as useful in revising papers. While not all students were very satisfied, another survey for another study would have to determine the reasons for this lack of satisfaction. Most likely some degree of inability to understand the information on the OWL may have been a main reason, but whether

such an inability might be due to OWL usability or to student weakness is debatable. The fact that most students used the OWL part of the time rather than the entire time that they were revising may indicate that OWL information was not necessary for most students in correcting every error for the revision.

FINAL REMARKS

Since the goal of this study was to determine whether Purdue OWL information on specific grammar and punctuation rules was useful to students in revising papers, whether revised papers include more accurate changes to errors, and whether post-revision tests indicate a better understanding of how to apply rules learned from the Purdue Owl site; the results of this study are mixed. The study does indicate that Purdue OWL is useful as a teaching tool for revision, but the study does not indicate that OWL was useful as an assessment tool for testing. However, the lack of reliable data in regard to OWL for assessment may be due to one or more factors. Was the post-test more difficult than the pre-test? Were untested factors such as gender, age, personal time constraints, online access, etc. relevant? Based on revision data, the OWL seems to be a good source for real-time revisions. The study doesn't indicate that the OWL improves tests scores, but this fact may be due to methodological weakness. In retrospect, the method could have been refined to obtain better results. I believe that another study using groups from future composition classes may reveal again that Purdue OWL is useful for revisions and may show that test scores rise based on revisions using OWL.

References

Bergmann, L. S. (2008). Writing Centers and Cross-Curricular Literacy Programs as Models for
    Faculty Development. Pedagogy, 8(3), 523-536.

Driscoll, D. L., Brizee, H. A., Salvo, M., & Sousa, M. (2008). Usability and User-Centered
    Theory for 21st Century OWLs. In P. Zemliansky, & K. St.Amant (Eds.) Handbook of
    Research on Virtual Workplaces and the New Nature of Business Practices (pp. 614-
    631). Hershey, PA: Information Science Reference. doi:10.4018/978-1-59904-893-
    2.ch045

Mills, Roxanne (2012). Does using an internet based program for improving student performance
    work in a college composition course? *Education* 130(4) Summer, 652-656.

Pantelides, Kate (2012). Negotiating what's at stake in informal writing in the writing center.
    Computers and Composition 29(4) Dec., 269-279.

Rilling, Sarah (2005). The development of an ESL OWL, or learning how to tutor writing online.
    Computers and Composition 22, 357–374. EBSCO

Salvo, Michael J. Salvo, Ren, Jingfang, Brizee, H., Conard-Salvo, Tammy S. (2009). Usability
    research in the writing lab: sustaining discourse and pedagogy. *Computers and
    Composition* 26, 107–121.

Vonderwell, Selma, & Boboc, Marius (2013). Promoting formative assessment in online
    teaching and learning. *Tech Trends* 57(4), 22-27.

Vonderwell, S., Liang, X., & Alderman, K. (2007). Asynchronous discussions and assessment in
    online learning. *Journal of Research on Technology in Education*, 39(3), 309-328.

Vonderwell, S. (2004). Assessing online learning and teaching: Adapting the Minute Paper.
    TechTrends, 48(A), 29-31.

Walker, Janice R.; Blair, Kristine L.; Eyman, Douglas; Hart-Davidson, Bill; McLeod, Mike;
    Grabill, Jeff; Kemp, Fred…Vitanza, Victor J. (2011). Computers and composition 20/20:
    a conversation piece, or what some very smart people have to say about the future.
    Computers and Composition 28(4), 327-346.

Appendix A -- pretest

1. Choose the correct sentence.

A) Dan behaves more pleasant than John.

B) Dan behaves more pleasantly than John.

C) Dan behaves pleasant more than John.

D) More pleasant than John behaves Dan.

E) None of the above.

2. Choose the correct sentence.

A) Does our car run good enough to enter the race?

B) Does our car go good enough to enter the race?

C) Does our car run well enough to enter the race?

D) Is our well car good enough to enter the race?

E) None of the above.

3. Choose the correct sentence.

A) Several countries participated in the airlift Italy, Belgium, France, and Luxembourg.

B) Several countries participated, in the airlift: Italy, Belgium, France and Luxembourg.

C) Several countries--participated in the airlift--Italy, Belgium, France, and Luxembourg.

D) Several countries participated in the airlift: Italy, Belgium, France, and Luxembourg.

E) None of the above.

4. Choose the correct sentence.

A) 4. Judge Wilkinson later, to be nominated for, the Supreme Court had ruled against civil rights.

B) 4. Judge Wilkinson, later to be nominated for the Supreme Court, had ruled against civil rights.

C) 4. Judge Carswell later to be nominated for the Supreme Court had ruled against civil rights.

D) 4. Judge Wilkinson later to be nominated, for the Supreme Court, had ruled against civil rights.

E) None of the above.

5. Choose the correct sentence.

A) The ginkgo tree, whose leaves turn bright yellow, in the fall came to this country from Asia.

B) The ginkgo tree whose leaves, turn bright yellow in the fall, came to this country from Asia.

C) The ginkgo tree, whose leaves turn bright yellow in the fall, came to this country from Asia.

D) The ginkgo tree whose leaves turn bright yellow in the fall came to this country from Asia.

E) None of the above.

6. Choose the correct sentence.

A) Randy took the elevator, to the third floor, rushed into the office and asked to see his father.

B) Randy, took the elevator to the third floor, rushed into the office and asked to see his father.

C) Randy took the elevator to the third floor, rushed into the office and asked to see his father.

D) Randy took the elevator to the third floor, rushed into the office, and asked to see his father.

E) None of the above.

7. Choose the correct sentence.

A) He listened to his favorite record, with close careful attention.

B) He listened to his favorite, record with close, careful attention.

C) He listened, to his favorite record, with close careful attention.

D) He listened to his favorite record with close, careful attention.

E) None of the above.

8. Choose the correct sentence.

A) Jenn, who had worked in the boutique all summer, hoped to work there again during the
     Christmas holidays.

B) Jenn who had worked, in the boutique, all summer hoped to work there again during the
     Christmas holidays.

C) Jenn who had worked in the boutique all summer hoped to work there again during the
     Christmas holidays.

D) Jenn who had worked, in the boutique all summer hoped, to work there again during the
     Christmas holidays.

E) None of the above.

9. Choose the correct sentence.

A) When he stumbled over your feet William was clumsy, not rude.

B) When he stumbled over your feet, William was clumsy, not rude.

C) When he stumbled over your feet, William was clumsy not rude.

D) When he stumbled, over your feet, William was clumsy not rude.

E) None of the above.

10. Select the correct sentence.

A) Maria wearing, an original dress of her own design, was the center of attention.

B) Maria, wearing an original dress, of her own design, was the center of attention.

C) Maria wearing an original dress of her own design was the center of attention.

D) Maria, wearing an original dress of her own design was the center, of attention.

E) None of the above.

Appendix B -- posttest

1. Select the correct sentence.

A) When she is a parent, she will think really different about children.

B) When she is a parent, she will think different about children.

C) When she is a parent, she will think differently about children.

D) When she is a parent she will think differently about children.

E) None of the above.

2. Select the correct sentence.

A) He used the phrase "you know" so often that I finally said "No, I don't know."

B) He used the phrase, you know, so often that I finally said, No, I don't know.

C) He used the phrase 'you know' so often that I finally said, 'No, I don't know.'

D) He used the phrase "you know" so often that I finally said, "No, I don't know."

E) None of the above.

3. Select the correct sentence.

A) "Whoever thought," said Helen, "that Jack would be elected class president?"

B) "Whoever thought" said Helen "that Jack would be elected class president?"

C) "Whoever thought," said Helen, "that Jack would be elected class president"?

D) 'Whoever thought,' said Helen, 'that Jack would be elected class president?'

E) None of the above.

4. Select the correct sentence.

A) There was only one thing to do, study till dawn.

B) There was only one thing to do to study until dawn.

C) There was only one thing to do, study, till dawn.

D) There was only one thing to do, study until dawn.

5. Select the correct sentence.

A) After eating the other dog's dinner Frisbee, ate his own.

B) After eating the other dog's dinner, Frisbee ate his own.

C) After eating the dogs dinner, Frisbee ate his own dinner.

D) After eating the other dog's dinner, Frisbee, ate his own.

E) None of the above.

6. Select the correct sentence.

A) You, don't want any more hamburgers, do you?

B) You don't want any more hamburgers do you?

C) You don't want any more, hamburgers, do you?

D) You don't want, any more hamburgers, do you?

E) None of the above.

7. Select the correct sentence.

A) Below the fields, stretched out in a hundred shades of green.

B) Below, the fields, stretched out in a hundred shades of green.

C) Below the fields stretched out in a hundred shades of green.

D) Below, the fields stretched out in a hundred shades of green.

E) None of the above.

8. Select the correct sentence.

A) Dauphin Island located off the coast of Alabama, is a favorite spot for fishermen.

B) Dauphin Island, located off the coast of Alabama is a favorite spot for fishermen.

C) Dauphin Island, located off the coast of Alabama, is a favorite spot for fishermen.

D) Dauphin Island, located off the coast, of Alabama, is a favorite spot for fishermen.

E) None of the above.

9. Select the correct sentence.

A) The officer, who made the arrest, had been investigated previously, for excessive use of force.

B) The officer who made the arrest, had been investigated previously, for excessive use of force.

C) The officer who made the arrest, had been investigated previously for excessive use of force.

D) The officer, who made the arrest, had been investigated previously for excessive use of force.

E) The officer who made the arrest had been investigated previously for excessive use of force.

10. Select the correct question.

A) All students eligible to receive tickets must go to the athletic office to pick them up.

B) All students, eligible to receive, tickets must go to the athletic office to pick them up.

C) All students eligible, to receive tickets, must go to the athletic office to pick them up.

D) All students eligible to receive tickets, must go to the athletic office to pick them up.

E) None of the above.