

COWL Project Review of the Origins and Current Practices of Online Writing Labs (OWLs) and Online Writing Support

Writing Centres

Writing centres 'have been part of American higher education since the 1930s', and have been a feature of most universities and colleges in the United States since the 1970s (Murphy and Law 1995: xi). The classic writing centre model is that of a central unit offering individualised tutorials in writing, open to all students and accessible to students at the point of need when writing or preparing to write coursework assignments. Philosophically, writing centres are intellectual, student-centred spaces, with staff who are able to advise students on the mechanics of writing (e.g. spelling, punctuation and grammar) but who are not limited to this function (North 1984). Indeed, the ethos of the writing centre model is that students mature in their knowledge and independence as academic writers through collaborative discussion with a writing tutor and through opportunities to work in guided ways on writing processes and assignment structures (Lunsford 1991).

The UK Context and the Centre for Academic Writing at Coventry University (CAW)

'The movement to develop student writing at university level began in UK higher education in the early 1990s, when the sector as a whole was undergoing an intense period of expansion' (Ganobcsik-Williams 2006: xxi).¹ In October 2004, the Centre for Academic Writing at Coventry University (CAW), the first of its kind in UK higher education, opened to students seeking guidance on writing essays, reports, dissertations and other types of academic prose. Prior to CAW's establishment, ad hoc advice on student writing was given at Coventry by staff members in the Faculties, the Library, the Student Disabilities Office, the Dyslexia Support Unit, and the English Language Unit. However, none of these areas were set up to provide systematic, professional and easily accessible support as an entitlement.

CAW offers students one-to-one writing consultations by appointment, ten-minute 'drop-in' tutorial sessions, group workshops on common topics in Academic Writing such as 'the writing process', and paper-based and electronic materials on topics ranging from how to construct an academic argument to how to improve grammar and sentence structure. In line with many current US university writing centres but with an expanded definition of the traditional writing centre model as described above, CAW also cascades help to student writers through its institution-wide Writing in the Disciplines (WiD) programme. Through WiD, CAW lecturers work with faculty-based academic staff to design and implement effective writing assignments and more explicit teaching of writing within subject courses.² CAW further defines its staff development remit by offering academics individualised consultations, group sessions, and writing retreats to support their own scholarly and research writing.

¹ The movement to support the writing of international students (i.e. Non-Native Speakers of English) began earlier.

² CAW has developed a series of linked projects with faculty staff to recognise and develop subject-specific writing needs.

CAW's Challenge

The demand for CAW's services has risen steadily in the four years since its establishment; for example, the number of students seen in individual appointments has increased by 221%. As noted above, CAW's current delivery mode is predominantly face-to-face with an emphasis on one-to-one sessions. Two problems with this model are that it is not scalable in terms of student demand and that it is currently not accessible to all the University's students. Twenty-first century students comprise a new type of learner: students study online and through blended learning courses, complete work placements away from campus, are geographically dispersed, and access study materials at different times using computers and personal mobile technologies. To meet the needs of these students, CAW must transform the delivery of its academic writing support. The challenge is to deploy learning and teaching technologies successfully in order to make CAW services available to all Coventry University students at times and in ways which they choose, without losing the highly-valued personal element of what CAW currently offers. Furthermore, to enhance the scalability of CAW services, any new methods for offering student writing support must include the potential to be disseminated through CAW's academic staff development remit in terms of its Writing in the Disciplines work. For these reasons, CAW staff have begun to investigate online delivery modes through the 'Coventry Online Writing Laboratory' (COWL) Project.

What is an 'Online Writing Laboratory' (OWL)?

US writing centre directors, administrators, and tutors have been experimenting with the use of computer technologies in writing centres since the late 1970s, and an established body of research and scholarship exists on this topic.³ A particular focus has been to debate and give guidance on the use of electronic writing resources, asynchronous online writing tutoring, and synchronous online writing tutoring. To harness these applications of electronic technologies to writing centers, a new form or extension of physical writing centres has been created: the 'online writing lab' or 'OWL'.⁴ An OWL can be 'a compilation of resources' providing information about a writing centre's 'services, staff, and location as well as access to worksheets, style manuals, and research tools. Many also take advantage of the Web's ability to link to documents at other sites', and many have online tutoring facilities (Ryan and Zimmerelli 2006: 72-75).

As early as 1986, some American writing centres offered face-to-face writing tutorials with computers and used institutional intranets to advertise their services and provide writing guides (Brown 2000: 19). The availability of the internet in many educational institutions from 1993, however, brought unprecedented opportunities to develop 'timedisplaced' (asynchronous) writing tutorial systems via email and 'real time' (synchronous) conferencing

³ See, for example, Hawisher et al. (1996); Hobson (1998); Inman and Sewell (2000); Munger et al. (2000): 55-56; and Ryan and Zimmerelli (2006): 66-80. Articles on technology and writing centers also appear in: *The Writing Center Journal*, *Computers and Composition*, *College Composition and Communication*, the *Writing Lab Newsletter*, and *Kairos: A Journal for Teachers of Writing in Webbed Environments*. An early annotated bibliography of articles on writing centres and computers is provided in the Educational Technology section of *Writing Centers: An Annotated Bibliography* (Murphy, Law, and Sherwood 1996), and an update is given in Sherwood (1998). A 2002 bibliography on scholarly research on Online Writing Labs (OWLs) is provided by the Purdue University OWL at <http://owl.english.purdue.edu/internet/owls/owl-bib.html>. Important discussion on technology and writing centers can also be found in the archives for the WCenter listserv <http://writingcenters.org/resources/writing-center-directors/>.

⁴ Some OWLs have been created without a being attached to a physical writing centre (Shadle 1998: 5).

tutorials through MUDs (Multi-User Domains) (Brown 2000: 19-22; Harris and Pemberton 1995: 147). The first 'OWL', a term coined in the early 1990s by Muriel Harris, Director of Purdue University's Writing Lab, was established at Purdue University in 1994 (<http://owl.english.purdue.edu/owl/resource/612/01/>; Brown 2000: 19). Although much debate has surrounded the use of this term,⁵ and it is now probably more productive to think in terms of Technology Enhanced Learning Environments (TELEs) rather than online ones, OWL has come to represent an established and internationally recognisable name for the work of online writing centres.

OWLs and Online Writing Tutoring Today

'In the mid- to late 1990s, asynchronous email exchange between student writers and tutors quickly emerged in writing center scholarship as a welcome and viable model for what continues to be called "online tutoring"' (Yergeau et al. 2008). In the ten or more years that have followed, many scholars have pointed out the limitations of this type of tutoring as compared with face-to-face sessions (e.g. the absence of personal contact; tutors' lack of rhetorical awareness in responding to student-writers 'with the requisite empathy and sophistication'; and the inability to foster a true dialogic exchange) (Yergeau et al. 2008). 'Real-time video-conferencing capabilities', in which the student and writing tutor would be able to see and talk with each other in a closer approximation of a face-to-face meeting, were available to some writing centre professionals by 1996. Their use was not feasible at the time, however, 'because they required too much bandwidth, financial expenditure, and technical skill' (Shewmake and Lambert 2000: 163). Some scholars predicted that video conferencing would be 'the future of OWL communications' and that it was 'only a matter of time before technology makes this type of writing conference a reasonable choice for OWLs' (Shewmake and Lambert 2000: 169). However, in an Autumn 2008 article on 'Expanding the Space of f2f: Writing Centers and Audio-Visual-Textual Conferencing', Melanie Yergeau, Katie Wozniak, and Peter Vandenberg argue that '[o]ver the past fifteen years or so, the phrase "online tutoring" has largely signified asynchronous email tutoring', and that despite some OWLs' use of instant messaging, email tutoring continues to be 'the most common form of computer-mediated collaboration' linking tutors and students (Anderson cited in Yergeau et al. 2008).

That email and other systems of queued asynchronous tutoring of writing assignments are currently the most common types of online tutoring provision available through OWLs is borne out by a survey of fifty-five US OWLs conducted in December 2008 by Tom Parkinson, an Academic Writing Tutor at CAW. Parkinson found that the majority of OWL sites he accessed were offering 'online provision in which students are invited to submit a sample of their writing through email. After a delay of anywhere up to three days students receive an email response from a tutor'.

Commercial tutoring programmes now also underlie the services of some OWLs and consortia of OWLs. For example, eTutoring, 'a collaborative online tutoring programme and

⁵ Documented alternative suggestions have included 'COWS' (Centers of Online Writing), 'WIOLE' (Writing Intensive Online Learning Environments), 'VWC' (Virtual Writing Center) (Brown 2000: 19); 'COW' (Center for Online Writing), 'OIL' (Online Interactive Learning), and 'COL' (Center for Online Literacies) (Monroe et al. 2000: 212). A more recently-used term (2005) is 'OWC' (Online Writing Centre) <http://writingcenterjournal.blogspot.com/>.

platform' (<http://www.etutoring.org>) and Smarthinking, 'the leading provider of online tutoring' (<http://www.smarthinking.com/>), offer online writing lab components that appear to be asynchronous queuing systems. Interestingly, they also offer 'live tutors in a virtual meeting space' (eTutoring) as well as real-time appointments through which '[s]tudents communicate with tutors using a virtual whiteboard technology' (Smarthinking).

In his survey, Parkinson identified a small number of OWLs that appear to offer synchronous online tutoring (e.g. the University of Denver <http://thunder1.cudenver.edu/writing/onlineConsultations.html>), as well as a few offering tutoring involving synchronous video conferencing, including the use of Skype at Bowling Green State University (<http://www.bgsu.edu/offices/acen/writingctr/page29898.html>) and live teleconferencing at the University of Maryland University College writing centre (<http://www.umuc.edu/ewc/index.shtml>) (Zimmerelli et al. 2008: 63)⁶. The best existing technology to 'recover the multimodal potential of the f2f tutorial in circumstances where f2f is not possible', argue Yergeau et al. (2008), is Audio-Video-Textual conferencing (AVT), in which student and writing tutor can see and hear each other and comment on the student's uploaded draft paper. Yergeau et al. (2008) theorise the use of AVT and suggest that an important question today is not whether to make use of this technology or not, but which AVT tools to choose and combine:

With inexpensive and accessible real-time options for voice and visual connectivity available via the Internet, the conventional oppositions between text-based chat rooms and discontinuous emailing, and between face-to-face tutoring and online tutoring, can become more productively complicated [for academic writing theorists]. Further, with a critical mass of academic professionals whose development has afforded them both theoretical and technical expertise, the field [of Composition and Rhetoric (Academic Writing)] is poised to engage notions of design in practical terms. We are positioned now to evaluate and select features, mix and match components and functionalities. The question becomes not which technology and why but which technologies in what combination and why. Well aware that technologies structure learning environments, learning goals, and learners, what design choices will we make?

Yergeau et al. (2008) discuss a range of tools they are trialling for the OWL at DePaul University, Chicago. These tools include MS Word, SightSpeed, MSN/Windows Live Messenger, AOL Instant Messenger, Skype, Yahoo Messenger, and Fix8. The authors note that while every writing centre or OWL will have its own localised needs, they have looked specifically for 'cross-platform capabilities, higher-end FPS rates, transcript and/or video recordability, and text-chat functions'. The article includes a comparison chart delineating the potential strengths and weaknesses, for synchronous online writing tutoring, of two pieces of software, MSN/Windows Live Messenger (video chat) and SightSpeed (video chat, video mail, and video conferencing). In an effort to ensure the 'productive engagement' of writing centre academics and technologists in choosing or designing combinations of online tutoring tools that are appropriate to the pedagogies and missions of their writing centres, Yergeau et al. (2008) voice their resistance to 'total solution software like Horizon Wimba, Elluminate, or

⁶ The number of OWLs using elements of real-time video-conferencing is difficult to gauge because access to tutorials and to webpage descriptions of how exactly these tutorials work is almost always restricted to students and staff of the particular university or college.

Adobe Acrobat Connect Pro (formerly Macromedia Breeze)'. In practical terms, however, many writing centre professionals will undoubtedly find the multi-functionality of these types of products to be significant, time-saving and appropriate for use.

In European higher education in 2009 there are a growing number of writing centres, programmes, and initiatives; fledgling OWLs; and an increasing array of approaches to supporting student writers face-to-face and online. One example, *Calliope*, a 'multilingual online writing centre in the field of business communication' developed in 2001 at the University of Antwerp, Belgium, operates as an online writing module environment containing 'individual learning paths' (Bräuer 2008: 92; Opdenacker and Van Waes 2007: 248). As part of a blended learning curriculum, *Calliope* allows students to meet online with other students in their module via '*Calliope* computer-assisted writing tools and the Blackboard environment' (Opdenacker and Van Waes 2007: 249). Specifically, *Calliope* uses three main tools: a feedback editor, an online writing environment, and digital portfolios. The Feedback Editor, a Web-based application, enables a student to upload a draft assignment and gives teachers and/or student peer reviewers the opportunity to add comments and preformulated advice for the student writer to make use of when revising his or her draft. Because research on existing software, for instance Markin and Focus, 'showed that no reasonably-priced off-the-shelf product provides a solution for our specific educational requirements', *Calliope*'s designers developed the Feedback Editor in-house, ensuring that it was created as flexibly as possible as a modular tool 'that can be taken out of an existing [institutional VLE] environment [such as Blackboard] and re-installed in a new one' (Opdenacker and Van Waes 2007: 253).⁷ The second tool in *Calliope*, the Escribamos writing environment, is 'a Web-based application developed to support collaborative writing activities' and can be accessed through most web browsers (e.g. Internet Explorer) (Opdenacker and Van Waes 2007: 254). Like the Feedback Editor, this tool was also specially developed for use by student writers,⁸ and 'is designed to support two main issues central to collaborative writing processes: sharing of documents and communication between co-authors' (Opdenacker and Van Waes 2007: 255). Through Escribamos, small groups of students can work together to plan, write, and revise papers, and because this interaction takes place online, it is not bound by time or geographical space. *Calliope*'s third tool, digital portfolios of students' writing, is deemed 'a very effective instrument for providing a structure in which students can systematically manage writing tasks and critically reflect on their learning processes' (Opdenacker and Van Waes 2007: 256). While many digital portfolio tools exist for use in higher education (e.g. PebblePad), *Calliope* has initially made use of the Blackboard 6.0 portfolio tool (Opdenacker and Van Waes 2007: 256). Although *Calliope* currently is not directly related to online tutoring, the COWL team can learn much from *Calliope*'s developers about software and pedagogical choices that may have direct bearing on other areas of the COWL project. The *Calliope* team is also involved in an EU-funded project whose aim is to develop 'a generic method for quality assessment of digital educational materials (QuADEM) in the area of professional and academic writing skills'

⁷ Opdenacker and Van Waes (2007: 252) note that the Feedback Editor 'was a joint effort of the universities of Antwerp and Nijmegen, Stroomt Consulting, and [. . .] the Higher Institute in Antwerp, and was funded by the Minerva programme of the European Commission'.

⁸ The Escribamos writing environment tool was developed at the IPLab of the Royal Institute of Technology in Stockholm, Sweden as part of Scribani, a collaborative European Minerva project (Opdenacker and Van Waes 2007: 254-55).

(Deygers 2008: 92), and the outcomes of this project should serve as valuable resources for anyone developing and maintaining OWLs.

The COWL project team and others interested in creating OWLs can also learn from recent developments of online support for student writing in UK higher education. In January 2009, for example, the writing centre at London Metropolitan University launched synchronous one-to-one online writing tutorials (<http://www.londonmet.ac.uk/depts/dops/writing-centre/online-tutorials.cfm>) using 'live chat' software. The 'Flying Start' project, involving Liverpool Hope University, the University of Derby, Thames Valley University and Edge Hill University, aims 'to introduce pre-university students to writing at degree level', and uses a Web-based system of wikis, blogs, and discussion forums to enable student transition mentors to work with students remotely on their writing (<http://www.hope.ac.uk/flyingstart>).⁹

At the University of Huddersfield, Academic Skills Tutors working in the faculties are exploring the use of open source technologies and collaborative content within Web 2.0 environments for teaching and supporting student writing. These technologies include social networking software (e.g. Ning (<http://about.ning.com/product.php>) and PBwiki (<http://pbwiki.com/academic.wiki>), and social bookmarking tools (e.g. Delicious (<http://delicious.com>)). A focus on Web 2.0 social and collaborative tenets for teaching writing is also being explored through the JISC-funded AWESOME (Academic Writing Empowered by Socially Mediated Online Environments) Dissertation Environment project, led by the University of Leeds with the Centre for Academic Writing (CAW) at Coventry University and the School of Lifelong Learning at the University of Wales, Bangor as partners. This project aims to develop a methodology for using social software to support student dissertation-project writing (http://www.jisc.ac.uk/whatwedo/programmes/programme_users_and_innovation/awesome.aspx). The AWESOME project team argues that use of social software to teach writing promotes collective intelligence and active engagement of users in collaborative creation and sharing of content. Taking another example, the social software YouTube is also an active medium for sharing information on Academic Writing, with postings of video clips from students and the general public on topics such as 'How to Write a 5-Paragraph Essay' (<http://www.youtube.com/watch?v=WY2pgCx6jOs>) as well as more 'official' postings by writing teachers such as Peter Elbow (<http://www.youtube.com/watch?v=YDU1c4uxUE>). As a last example, the use of immersive virtual world technology such as Second Life (<http://secondlife.com/whatis/>) is another possible way to conduct writing tutorials and other forms of writing support online, namely through the use of student and writing tutor avatars (Rodrigo 2008).

An example of more self-contained software for supporting student writers is the Assignment Survival Kit (ASK) developed by Staffordshire University, trialled by Manchester Metropolitan University and evaluated by the University of Kent (<http://www.staffs.ac.uk/ask>). ASK is an interactive, student-facing online tool that incorporates a timeline, writing support and web links for completing written assignments. Coventry University's RoCoCo project, which includes the aim of repurposing research methods writing resources for postgraduate students, provides another example of an interactive writing support package

⁹ The Flying Start project is funded by the Higher Education Academy National Teaching Fellowship Scheme Project Strand.

http://www.jisc.ac.uk/whatwedo/programmes/programme_earning_capital/reproduce/roco_co.aspx).

One other development area to which the COWL project is clearly linked is that of electronic feedback on student texts. Feedback on student writing has traditionally been given on paper, but, recently, work has been undertaken to explore ways in which new technologies can enhance feedback, particularly as students increasingly are required to submit their work electronically. Screen capture software can enable tutors to record their on-screen actions and their spoken comments while creating feedback.¹⁰ See, for example, Camtasia (<http://www.techsmith.com/camtasia.asp>). The resulting files can be distributed to individual learners, for example through a Virtual Learning Environment (VLE), and can be played back by students as video with a running commentary as various sections of their writing are highlighted, amended and discussed. Small scale trials at Coventry University and at the University of Westminster (Stannard, 2007) suggest that many students welcome this kind of multimodal feedback. Related work is also being undertaken by Leeds Metropolitan University as a result of the JISC-funded Sounds Good project.¹¹

Finally, it is worth noting that researchers at the Open University, an institution that has engaged in distance learning since its founding in the 1970s, have much to contribute to considerations of computer and online support for student writing. The Open University's ESRC-funded digit@Lits (Digital Literacies in Higher Education) project (<http://digital-literacies.open.ac.uk/home.cfm>), which is being carried out by Mary Lea, Robin Goodfellow, and Sylvia Jones, is an important example of research exploring and theorising students' range of digital writing and reading practices upon whose findings other projects, including COWL, can build.

COWL and Technology Choices

The COWL project will allow CAW to replicate some of its current services online as the COWL (Coventry Online Writing Centre). One of the major ideas underpinning the project's plan is to create online ways for students to access and engage with CAW services that will complement the face-to-face versions that CAW currently offers and will continue to offer. As noted at the start of this scoping exercise, CAW offers students one-to-one writing consultation appointments, short 'drop-in' tutorial sessions, and group workshops on common topics in Academic Writing. When COWL's Technology Workpackage Team held its first meeting, in January 2009, the following points were made in relation to these services and technology options discussed:

- We will need a variety of tools to fit different situations.
- We will aim to use Coventry University's existing technologies, because:
 1. the University already has staff and facilities in place to support these

¹⁰ Although there is significant use of "screencasting" globally little has been published on its use in giving feedback to students. However interesting small-scale experimentation is taking place. See, for example, <http://maricopatech.blogspot.com/2007/08/grading-papers-electronic-way.html>

¹¹ For a description of the Sounds Good project, see: <http://www.jisc.ac.uk/whatwedo/programmes/usersandinnovation/soundsgood.aspx>.

technologies,

2. staff and students are already familiar with these technologies,

3. the COWL project's use of these technologies will encourage staff and students to make use of the technologies the University has invested in.

- The COWL Technology Team is also open to using open-source technologies that are freely available on the web—and it may be that we need to use such technologies in order for all students to be able to utilise what COWL can offer.

As a JISC 'Transforming Curriculum Delivery through Technology' project¹², the COWL project is meant to focus on utilising existing technologies in new and effective ways and on applying the use of existing technologies to transform curriculum delivery practices. The aim and remit of the COWL project, therefore, is not to develop new software to enable online writing support, but, as Yergeau et al. (2008) suggest, to make pedagogically-informed choices about which products to use and combine.

Conclusion: The Pedagogy of OWLs

Ongoing piloting and evaluation of technologies such as those discussed in this report will inform the progress and outcomes of the COWL project. Pedagogical needs and practices will also shape the COWL team's choices of software and user environments. Indeed, and perhaps most importantly, it will be crucial throughout the development and implementation of this project for the COWL team to bear in mind CAW's pedagogical mission as a writing centre: to help enable students and other members of the university community to become more critical and independent writers. As writing centre scholar Erik Hobson has cautioned:

My abiding hope is that in the midst of our enthusiasm [to create online writing centres], we do not abandon the very powerful set of ideals and values that have been the writing center community's hallmark. It is possible that the idea of the writing center we value may become so diffuse, spread so thin, that our virtual enactments no longer resemble that powerful ideal (Hobson 1998: xxv).

The COWL project team accepts the challenge to adhere to both valued and conventional forms of delivery and to extend these privileges to students hitherto marginalised by traditional methods of learning. Our goal is that the technologies we draw upon in taking CAW online will not impede, but will instead add to, CAW's range of effective strategies for teaching and supporting Academic Writing.

Lisa Ganobcsik-Williams
COWL Project Director
25th February 2009

¹² For a description of this funding strand, see:
<http://www.jisc.ac.uk/whatwedo/programmes/elearningcapital/curriculumdelivery.aspx>.

List of References

- Bräuer, G. (ed.) (2008) *European Writing Centers Association Conference 2008 Program*. Unpublished booklet: University of Education: Freiburg, Germany
- Brown, L. F. (2000) 'OWLs in Theory and Practice: A Director's Perspective.' In *Taking Flight with OWLs: Examining Electronic Writing Center Work*. ed. by Inman, J. and Sewell, D. Mahwah, NJ: Lawrence Erlbaum Associates: 17-28
- Deygers, B. (2008) 'Assessing the Quality of an Online Writing Centre.' In *European Writing Centers Association Conference 2008 Program*. ed by Bräuer, G. Unpublished booklet: University of Education: Freiburg, Germany: 92
- Ganobcsik-Williams, L. (2004) *A Report on the Teaching of Academic Writing in UK Higher Education*. London: Royal Literary Fund
- Ganobcsik-Williams, L., (ed.) (2006) *Teaching Academic Writing in UK Higher Education: Theories, Practices and Models*. Houndmills: Palgrave Macmillan
- Harris, M., and Pemberton, M. (1995) 'Online Writing Labs (OWLs): A Taxonomy of Options and Issues.' *Computers and Composition* 12: 145-159
- Hawisher, G., LeBlanc, P., Moran, C., and Selfe, C. (1996) *Computers and the Teaching of Writing in American Higher Education, 1979-1994: A History*. Norwood, NJ: Ablex
- Hobson, E. H. (ed.) (1998) *Wiring the Writing Center*. Logan: Utah State University Press
- Inman, J. and Sewell, D., (eds.) (2000) *Taking Flight with OWLs: Examining Electronic Writing Center Work*. Mahwah, NJ: Lawrence Erlbaum Associates
- Lunsford, A. (1991) 'Collaboration, Control, and the Idea of a Writing Center.' *The Writing Center Journal* 12.1: 3-10
- Monroe, B., Rickly, R., Condon, W., and Butler, W. (2000) 'The Near and Distant Futures of OWL and the Writing Center.' In *Taking Flight with OWLs: Examining Electronic Writing Center Work*. ed. by Inman, J. and Sewell, D. Mahwah, NJ: Lawrence Erlbaum Associates: 211-222
- Munger, D., Anderson, D., Benjamin, B., Busiel, C., and Paredes-Holt, B. (2000) 3rd edn. *Researching Online*. New York: Longman
- Murphy, C. and Law, J. (eds.) (1995) *Landmark Essays on Writing Centres*. Davis, CA: Hermagoras Press
- Murphy, C., Law, J., and Sherwood, S. (1996) *Writing Centers: An Annotated Bibliography*. Westport: Greenwood Press
- North, S. (1984) 'The Idea of a Writing Center.' *College English* 46: 433-446

- Opdenacker, L., and Van Waes, L. (2007) 'Implementing an Open Process Approach to a Multilingual Online Writing Center: the Case of *Calliope*.' *Computers and Composition* 24: 247-265
- Parkinson, T. (2008) *Online Writing Labs*. Unpublished report: Coventry University
- Rodrigo, S. (2008) 'Learning in Virtual Worlds: Second Life(s) for Learning'. Maricopa Learning Exchange. Available from
<<http://www.mcli.dist.maricopa.edu/mlx/slip.php?item=2257>> [10 February 2009]
- Ryan, L. and Zimmerelli, L. (2006) 4th edn. 'Tutoring and Technology'. *The Bedford Guide for Writing Tutors*. Boston: Bedford/St. Martin's Press: 66-80
- Shadle, M. 'The Spotted OWL: Online Writing Labs as Sites of Diversity, Controversy, and Identity'. In *Taking Flight with OWLs: Examining Electronic Writing Center Work*. ed. by Inman, J. and Sewell, D. Mahwah, NJ: Lawrence Erlbaum Associates: 3-16
- Sherwood, S. (1998) 'Computers and Writing Centers: A Selected Bibliography'. In *Wiring the Writing Center*. ed. by Hobson, E. H. Logan: Utah State University Press: 216-230
- Shewmake, J. And Lambert, J. (2000) 'The Real(Time) World: Synchronous Communications in the Online Writing Center'. In *Taking Flight with OWLs: Examining Electronic Writing Center Work*. ed. by Inman, J. and Sewell, D. Mahwah, NJ: Lawrence Erlbaum Associates: 161-170
- Stannard, R. (2007) 'Using screen capture software in student feedback'. *HEA English Subject Centre Commissioned Case Studies*. Available from
<<http://www.english.heacademy.ac.uk/explore/publications/casestudies/technology/camtasia.php>> [2 February 2009]
- Yegeau, M. Wozniak, K., and Vandenberg, P. (2008). 'Expanding the Space of f2f: Writing Centers and Audio-Visual-Textual Conferencing'. *Kairos: A Journal of Rhetoric, Technology, and Pedagogy* 13.1. Available from
<<http://www.technorhetoric.net/13.1/topoi/yergeau-et-al/index.html>> [3 February 2009]
- Zimmerelli, L., Taylor, D., and Whitcraft, J. (2008) 'The Online Writing Center as a New Paradigm for Interconnectivity'. In *European Writing Centers Association Conference 2008 Program*. ed by Bräuer, G. Unpublished booklet: University of Education: Freiburg, Germany: 63