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Claiming Research: Students as "Citizen-Experts" in WAC-Oriented Composition

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"The first thing I want to say to you who are students is that you cannot afford to think of being here to ***receive*** *an education: you will do much better to think of being here to* ***claim*** *one." —Adrienne Rich (1979, p. 231)*

It may seem odd to begin a discussion of academic research by quoting Adrienne Rich's well-known 1977 speech, "Claiming an Education." But, if one substitutes "research" for "an education," the sentiment more or less describes the situation faced by most first-year students assigned research in composition. Completing the monumental academic "Research Paper" in first-year writing courses is considered a rite of passage for students in many universities (including my own, Auburn University), and is one often performed with grim resignation and uncertain purpose by many of those involved (Schwegler & Shamoon, 1982). Such was the case when I began teaching English Composition II, a second-semester, first-year writing course that makes up one of several humanities core courses within Auburn's curriculum. These core courses, including a two-semester sequence of composition, are mandated by our state articulation agreement, and many curricular guidelines are predetermined by that agreement. Our department has molded this curriculum somewhat, but any innovations must be implemented cautiously and creatively. Drawing on previous WAC research about disciplinary writing as well as classical rhetoric and critical pedagogy, I will describe my response to this mandate, theorizing a new critical space for WAC, one that promotes students' civic engagement while they are researching an academic discipline. Operating at the nexus of rhetoric, critical theory, and WAC scholarship, I will discuss ways that a critical WAC pedagogy encourages students' investment in their own research and encourages students to become responsible "citizen-experts" within their communities.

Though the purpose of Auburn's research paper in English Composition II is to prepare students for academic research, I also strive to include a strong critical component, highlighting moral and ethical concerns within academic discourse much like that described by John Pennington and Robert Boyer (2003), wherein students are conscious of the responsibility they have

to readers, civic communities, and even themselves to produce accurate, reflective, and moral writing. Unlike Pennington and Boyer, who teach at St. Norbert College, a small Catholic school, Auburn is a large secular university without religious ties. But Auburn's curriculum does reflect a strong moral grounding: as a land-grant institution, its mission is to foster students' sense of public accountability, promoting "educated and responsible citizens" (Auburn University, 2005) as well as specialists within academic disciplines. Auburn is not alone in this goal; most land grant institutions conscientiously educate students to be critically informed citizenry of their resident states. Critical WAC pedagogies can play a vital role in the education of an informed citizenry, whether religious or secular, by promoting the examination of academic discourse within public contexts. Moreover, WAC pedagogies can encourage students to "own" their research, to claim personal responsibility by guiding academic discourse through civic involvement.

Critical WAC Pedagogies and Citizen-Rhetors

To enact a critical WAC pedagogy, I have transformed my second-semester composition course into a discipline-specific "writing to learn" community (McLeod and Maimon, 579). In particular, the course focuses on evaluating both the available academic research in one discipline and the current public discourse about that research. Disciplinary discourse is situated in its academic and public contexts, which encourages students to trace the implications of research for their personal, civic, and economic lives. Through this process, students do not necessarily become experts in all aspects of the internal workings of an academic discourse community (such as knowing all of its disciplinary terminology, research methods, and epistemological frameworks), but they do learn the ways in which that academic research moves from the university laboratory or scholarly journal to the everyday lives of citizens.

This critical WAC pedagogy also accommodates students' personal reactions to knowledge acquisition; in the words of Donna LeCourt, a "critical WAC model" recognizes "the multiplicity of voices and discursive positions constructed in contexts other than schools" (1996, p. 400). As LeCourt argues, allowing students to critically examine texts from their own multiple subject positions, from both inside and outside the academy, helps to personalize academic research for students, investing them in the process of knowledge acquisition and fostering their personal commitments to academic discourse (1996, p. 400). Recent composition and education research has recognized both the diversity and the value of students' literate practices (Kress, 2003; Fleckenstein, 2003; Lankshear & Knobel, 2003), the discourses they bring to the academy from schoolwork, family life, and social relations. In particular, students increasingly bring complex technological, visual, and multimedia literacies to the composition classroom (Selfe and Hawisher, 2004), discourse practices

that can be exploited and enhanced as students mature in their academic and civic subject positions.

LeCourt's critical WAC model also encourages students' personal investment in academic research and recognizes students' multiple voices and critical approaches to the making of disciplinary knowledge and discourse. To this multiplicity, I would add students' engaged voices as citizens; WAC-oriented composition can help students make connections between academic research, public discourse, and civic involvement. Such a move is necessitated by the increasingly corporatized context of universities: more and more, university research is funded by corporate organizations, and universities themselves are profiting from patents and other research-derived economic benefits. Academic research often has immediate implications for the public lives of citizens, and our students are uniquely situated in these two communities. Moreover, the speed at which many areas of knowledge (particularly those in the sciences) are advancing—resulting from both academic and corporate research—positions students to learn and write about developments which will soon impact their personal and civic lives in profound ways.

Through academic research, students can examine the relationship between academic discourse and the public sphere, critically reflecting on the import of disciplinary knowledge through their positions both as new members of the academy and as informed public citizens. Thus, I approach the "Research Paper" as a hybrid of several contexts and tasks, introducing students to both WAC-oriented writing-to-learn strategies and rhetorically-informed critical heuristics. Such a pedagogy positions students as "citizen-experts" through several types of activities: learning the major conversations of an otherwise unknown area of academic research, commenting on the place of this research in public discourse, and carrying their knowledge to the public sphere. Composition courses present a critical, reflective space for the development of citizens-experts through WAC pedagogies informed by rhetorical theory and history, combining the classical model of the "citizen-rhetor" and the personal-critical subject position described by LeCourt.

The role of citizen-expert has its roots in the classical rhetorical tradition of citizen-rhetor; in ancient Greek and Roman training, rhetorical education was a means by which citizens were prepared for public discourse and deliberation. Isocrates is most noted for this approach to education; he argued that rhetoric is a technical art necessary for participation in public life. Takis Poulakos describes Isocrates' teaching philosophy as one which linked education and civic duty: "the link between rhetorical education and political life he sought to secure opened a space from within which it would be possible for Athenians to regard educational activities as so many occasions to make themselves proficient in political deliberation, public controversy, and societal debate" (1997, p. 104). For Isocrates, education was preparation for leadership

in the polis, or city-state, as much as for professional employment. Contemporary neo-classical and critical pedagogies over the last few decades have built on this rhetorical tradition, teaching students Aristotelean principles of argument (Corbett, 1990) and encouraging them to examine public politics and popular culture from within the walls of the academy (Berlin, 1996; McComiskey, 1999; Trimbur, 1997).[1] A "critical WAC model" that positions students as "citizen-experts" can build on these pedagogies by integrating classical rhetorical principles, public discourse, and disciplinary research.

Like WAC pedagogies, Isocrates' educational schema included learning in the disciplines, but not necessarily for the sake of becoming disciplinary scholars. According to Poulakos, he understood the value of learning many disciplines, but not entirely as a preparation for professional specialization. In fact, Isocrates viewed too much specialization (at the expense of a well-rounded education) as a hindrance to one's cultivation for civic life and culture. A well-rounded education fosters the cognitive skills needed to understand challenging specialized content, but the communicative reflection of interdisciplinary, foundational studies is also imperative (Poulakos, 1997, p. 101). The education of the citizen-rhetor, then, has much in common with WAC-oriented composition: students pursue the content knowledge of academic fields while learning rhetorical strategies for participation in public decision-making about those areas of inquiry. Both approaches to education aim to produce ethical leaders among the citizenry who are skilled in "the process of of discerning and advocating the common welfare" (Poulakos, 1997, p. 105) through cultural cultivation, specialized knowledge, and rhetorical training. While researching and writing about disciplinary discourse, students can engage this content as citizen-experts and, like the citizen-rhetor, can then take this knowledge to the community, "deliberating publicly the good and possible for the polis" (Poulakis, 1997, p. 105).[2]

Citizen-Experts and Biotechnology

Though I believe that my "citizen-expert" approach to WAC-oriented composition could concentrate on many academic disciplines, especially those in the sciences,[3] I chose to focus on the field of biotechnology because of its timeliness and my own research interests in this area.[4] I devised a sequence of two papers that both introduce students to the field and promote their awareness of major ethical, legal, and social implications of this research. Recent advancements in biotechnology make it a timely topic for both science and non-science composition students. Most importantly, increased public and government interest in bioethics has been largely catalyzed by this field, including national debates about the definition of life and humanity. Multiple communities and industries, as well as millions of medical patients, are affected positively by cutting-edge genetic research, but other groups, such as ethi-

cists, religious leaders, some scientists, and even politicians express concerns about advancements which might lead to social and cultural changes similar to that of the early twentieth century eugenics movement. In addition, controversies such as stem cell research have re-opened debates about the beginning and purpose of life, prompting the media to cover biotechnology's moral and political issues as much as, if not more than, its scientific achievements.

To educate the public about biotechnology's potentials and perils, the government is encouraging lessons about biotechnology for all public school students; along with some private organizations, the National Human Genome Research Institute (NHGRI) supplies myriad educational tools and activities for free on the Web.[5] My class and I begin our discussion using online educational materials, locating the major lines of inquiry, becoming familiar with important terminology, and discussing pertinent moral and ethical issues. The information contained in online materials is intended for high school students, so it is easily accessible and quickly comprehended. Through its educational efforts, the government is promoting a sort of genetic literacy among the populace, a deep knowledge and understanding of the science behind biotechnology, the applications it produces, and the moral and ethical issues it raises (Andrews et. al, 1994; Collins, Green, & Guttmacher, 2003; McInerney, 2002). As literacy educators, WAC writing instructors are poised to contribute unique perspectives to this literacy campaign and educate the first generation of students who will make major medical, legal, and ethical decisions about this science.

Students perform research and reach conclusions about biotechnology through a two-part paper sequence; the first paper is a scientific literature review essay, and the second is an argumentative paper that integrates outside sources. The scientific literature review is based on the literature review sections contained in most scientific articles, wherein authors cite, discuss, and evaluate previous scientific research in their field. Although this paper is based on a highly specialized disciplinary genre, I adapt it for a more generalized writing-to-learn goal: becoming knowledgeable and informed citizens rather than disciplinary experts. With a public, rather than expert, audience in mind, the assignment asks students to review myriad types of sources—not just scientific writing but also sources from a variety of media including popular periodicals, the Web, books, and journals. Starting with science-oriented databases and print texts, they trace the dissemination of discipline-specific knowledge out to more popular media outlets like newspapers and magazines as well as the Web, evaluating the reliability and relevance of myriad sources and gaining critical awareness of both a biotechnological advancement and the public discourse about that advancement.

I encourage students to compare and contrast the information available in mass media sources to those of more academic journals: they show how certain types of information are available in certain contexts, but others are not so easily accessed. This evaluation can include judgments about the types of informational genres available, the accessibility of relevant information, or the lack of current, accurate, or relevant scientific research. Some students make a judgment about future research that needs to happen—but some of them also (or instead) discover gaps in public discourse. Forensic DNA fingerprinting is a particularly poignant example: when researching, students discover that the most substantive information is found in law and other academic journals and is written in complex legal language. Though Auburn students have access to this material through our university library—and have some knowledge of the scientific principles behind DNA in order to negotiate legal, scientific, and philosophical jargon—the general public normally would not have these privileges. After performing required Web research, students discover that few Web sites clearly explain the legalities and procedures behind DNA fingerprinting, an omission that leaves the general public, including those with relatives and friends involved in legal cases, without accessible resources. The students come to understand this situation as a public (not just academic) concern, and feel a sense of responsibility for the dissemination of forensic DNA knowledge. This sense of responsibility is heightened when students consider the plight of many defendants in legal cases who come from lower class backgrounds and often have fewer educational opportunities than themselves.

DNA fingerprinting is not the only area of biotechnological research with major informational gaps. Students often decry the dearth of complete, accurate, and publicly accessible articles about postgenomic medical research that are needed to help families of patients understand the ethics of emerging experimental treatments. Even by making these evaluations, students become invested in their topics, academically as curious researchers, and personally as public citizens and family members. Moreover, the composition students view themselves as at least somewhat knowledgeable about complex and sophisticated scientific advancements, an empowering transformation for first-year college students. They come to understand that with systematic, thoughtful research practices, they can claim most academic topics—not just research them but claim them as topics about which they have distinct knowledge and insight. With the disciplinary knowledge they acquire through research, students come to see themselves as novices within a scientific field, but citizens who have informed opinions from which to argue.

Because of the relatively short time span in which students perform disciplinary research, they often feel overwhelmed by the amount of information learned in a short period of time. I realized early on that with this much background information, students need a heuristic to guide their thinking. Further-

more, departmental guidelines require students to complete a "Problem/Solution" paper as part of English Composition II. With these two considerations in mind, I devised the second half of the two-paper sequence: an argumentative paper that argues two theses, rather than one: the problematic (or unproblematic) elements of the particular advance they have researched and the solution to addressing that advancement. The first half of the paper, then, consists of an ontological argument about the value of a particular biotechnology while the second half argues for a practical approach to that technology (perhaps a policy, a law, or research support).[6] The first half of the paper gives students the opportunity to personalize the topic, considering its worth for themselves, their families, and society. Students ask whether the biotechnological advancement they study is a social "good," in much the same way Isocrates envisioned the citizen-rhetor, but here, students draw even more on the knowledge they gained from disciplinary research.

Students are surprised to find that often seemingly esoteric scientific research holds implications for their personal lives—and, just as LeCourt observes, this personal involvement leads to critical action. Some have researched genetic treatments for major diseases that affect their grandparents, parents, and other family members; students then share the knowledge at home, becoming "expert-citizens" within their family-communities. Or, they find that public representations of controversial biotechnological applications, such as cloning, are often rooted in false premises. One of the most moving arguments was by a student who had an identical twin sister. She quickly realized that clones are genetically the same as identical twins (except their gestations are separated by time), which prompted her to defend the value of such humans as ontologically similar to her own life. In researching and writing about cloning, she came to a clearer understanding of her own familial relations and developed a deep sense of responsibility to join the debate about cloning. Her response to the research reflected a personal, expressivistic approach to academic research (LeCourt, 1996): for her, cloning became a moral issue as much as, if not more than, an academic topic. Such commitment reflects the same spirit described by Pennington and Boyer as "[s]ituating writing as a moral and civic duty" (2003, p. 98).

A personal connection to the research helps students understand the moral import behind their roles as citizen-experts, but their compositions are efficacious only if they can place this knowledge in a public context. To move students from a more self-reflective writing-to-learn position to one of civic responsibility, I ask students to consider the practical import of their ontological arguments. As such, the second half of their argumentative papers moves from the realm of the personal to a more public audience. I encourage students to consider the practical limitations of influencing biotechnological research and address the needs of a more distant, public audience. Students decide how to

enact change about their biotechnological advancement, weighing their moral and ethical conclusions against the practicalities of society, economics, and law. They draw on the diversity of their research to locate media representations and public policies which depict or regulate their advancements, tempering their sincere but often grand ideas about specific advancements with awareness of the practical limitations of a capitalist-democratic society.

In 2001, for example, two students researched a cutting edge heart disease therapy which utilizes genetic growth factors to stimulate heart vessel growth. At that time, only one doctor, Jeffrey Isner, was experimenting with the therapy, and he had just completed a first set of therapy trials, so these students were able to gather through Auburn's library all the information about this topic which was publicly available, a thoroughness made possible because it was cutting-edge work. In 2001 (and indeed, since then), all indications were that the advancement successfully repaired heart tissue with very few side effects, offering hope to patients in advanced stages of the disease. However, in those early years, few heart patients had access to, or even knowledge of, this procedure, and the students expressed personal regrets that their own deceased family members who suffered from heart disease were not treated with this therapy. Therefore, a great deal of these students' papers entailed policy-based arguments for more funding and publicity. In their role as "citizen-experts," the students acquired an expert level of knowledge about this treatment, placed that knowledge in a personal/public context, and then engaged civic debate through their disciplinary knowledge. As "citizen-experts," they negotiated multiple forms of discourse: writing-to-learn strategies that taught them about the procedure, personal reflections about family members, and formal argumentation that employs language and discourse conventions designed to persuade a public audience. This complexity is a reflection of WAC's discourse "continuum," its capacity for writing-to-learn strategies as well as its accommodation of public discourse (Reiss and Young, 2001, p. 61-63).

"Citizen-Experts" and Applied Research

Although my composition students become "citizen-experts" in a very precise strand of biotechnological research and are able to make critical judgments about the status of research in that sub-area, students do not achieve what Susan MacDonald calls "[e]xpert, insider prose" (1994, p. 147), the highest level on her continuum of disciplinary writing. Brian Sutton (1997) describes MacDonald's continuum, four levels of skill and knowledge that writers may achieve:

1. Nonacademic writing
2. Generalized academic writing concerned with stating claims, offering evidence, respecting others' opinions, and learning how to write with authority

3. Novice approximations of particular disciplinary ways of making knowledge
4. Expert, insider prose (Sutton, 1997, p. 48, cited as MacDonald, 1994, p. 187)

The two-paper sequence I have described here often prompts students to achieve the third level, approximating knowledge-making within a small subfield of biotechnology, but their conclusions are different from those described by MacDonald. Rather than becoming scholars of disciplinary discourse, students become highly informed consumers of the research within that discipline. In the two-paper sequence, they achieve "novice approximations of particular disciplinary ways of making knowledge," but those approximations entail a more generalized understanding of the disciplines' available research as well as a critical understanding about available public knowledge. Reflecting Isocrates' rhetorical education, students' research and writing operates in the shared space of the academy and the *polis,* bringing together the discourse practices of each to enact civic change.

Sutton and MacDonald argue that students will not find personal value in academic discourse if they are prompted to produce new forms of writing, like the scientific literature review, before they have time to critically examine the subject and its research. However, the two papers described here work in tandem to give students a sense of responsibility as academic researchers, family members, and informed citizens. While I agree that the reproduction of disciplinary genres (like the scientific literature review) should not be the primary emphasis of any research paper, I argue that exploiting the heuristic capabilities of a disciplinary genre is effective as a writing-to-learn activity. The goal is not to reproduce or even master scientific discourse conventions; it is to use the heuristic qualities of those conventions to enhance students' understanding of their own research and its implications. Disciplinary conventions like the scientific literature review serve a rhetorical purpose for "insiders," contextualizing and situating research within a larger discourse community (Bazerman, 2000; Berkenkotter, Huckin, & Ackerman, 1991). Students also can contextualize research through such a review, learning not just the status of research, but its place within larger social, economic, personal, and political structures. Seemingly deterministic genres like that of the scientific literature review allow writers a framework within which they can reflect on the process and results of research—leading to informed practice within broad academic and civic contexts, but not necessarily "expert, insider prose."

As "citizen-experts," students are not experts among disciplinary professionals; instead they enact this role among the general citizenry, learning highly contextualized discourse in order to work for broad social change. Most importantly, students experience the commitment to learning and the rewards

of discovery which lie at the heart of all academic research. Last summer, I was at a local water park where a former student was working as a lifeguard. While I drifted past her down the artificial river, she asked me: "Dr. Sidler, have you heard about any biotechnology news?" Two years after my course, this student was still engaged with the material, not as a disciplinary insider, but as an informed citizen eager to share knowledge. Several students, in fact, have sent me biotechnological updates they have found, furthering my own research and creating a life-long learning relationship. Examples such as these are prevalent and evidence of students' sense of personal connection to the topic of biotechnology—their continuing desire to claim their research.

Notes

1. John Trimbur builds on the work of Jim Berlin to develop a concept of students as "citizen-workers," a more overt Marxist approach to students' civic involvement than the "citizen-expert" role presented here.

2. To further locate students' research and writing in a public context, I plan to expand the two paper sequence by asking students to identify public spaces where in they can enact their roles as "citizen-experts" further. Students will identify activities that utilize their disciplinary knowledge and writing skills to inform and lead the community. These activities might include writing to specific public audiences or constructing informational materials that can be used to educate the public.

3. This "citizen-expert" approach to the research paper can be applied most directly to information technology and nanotechnology, wherein new advances are emerging monthly—if not weekly or daily. Eventually I plan to adapt my course to these other disciplinary fields, serving a broad range of Auburn students.

4. Students contribute to my own research directly: they often inform me about new biotechnological advancements, creating a workshop-type atmosphere for the course. In addition, because the field is changing so quickly, advances often occur during the course of students' research, and they share this new information with me. This collaboration has become so valuable to my work, I even acknowledged them in the footnotes of a recent article (Sidler, 2004).

5. See for example, the National Human Genome Research Institute (2005), PBS/DNA (Alabama Public Television, 2003), and bioethics.net (2005) Web pages.

6. This idea was inspired by the explanation of an arguable thesis in *The New Century Handbook* (2002), which delineates different types of theses, including "claims of fact, value, or policy" (p. 128).

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