# You Write What You Know: Writing, Learning, and Student Construction of Knowledge

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> You write what you, what you understand, what you
> know, right?  About the topic or about the concepts...
> *--Lata, a community college nursing student in a*
> *writing-intensive course*

Still in the relatively early stages of our college's Writing Across the Curriculum (WAC) initiative, we have begun a study to assess its impact. As members of the WAC committee, full-time instructors in two of the college's career programs (human services and early childhood respectively), and qualitative researchers, we were charged with the task of developing and implementing the study.  In our urban community college we often conduct interdisciplinary work, and both the WAC program and committee reflect that.  The WAC committee has enlisted support for WAC from the variety of career programs and liberal arts departments. Our role as assessors is to look at and learn from the way instructors are implementing WAC. Walvoord & Anderson (1998) state that

> assessors are not external imposers of something brand new but in-
> vestigators, ethnographers, and facilitators.  The assessor's approach
> is not to get people to do assessment, but to examine how people
> teach and assess critical thinking, and to help them improve. (pp.150-
> 151)

During the planning stages, we envisioned at least two purposes of

assessment: to find out what faculty and students can suggest to us about the connections between writing, learning, and student construction of knowledge and to continue the deliberate process of educating the college community about WAC pedagogy.

In this article we compare two students' points of view about WAC, based on data gleaned from interviews with them.  We have triangulated and augmented their interviews with interviews with their professors and written statements from other students in those professors' writing-intensive classes.

**Background**

After a great deal of deliberation, the WAC committee decided to begin our assessment with a qualitative component.  The strategy seemed to be in concert with the WAC assessment literature and our local purpose.  By putting a small sample under a microscope, we observed the "DNA" of the WAC efforts at our college.  Then, by relaying our preliminary findings to the community at large, including administrators, faculty, and students, we are helping to shape the development of the project.  While we do not generalize from the findings of this study and while they may confirm what is already known about WAC pedagogy, we believe that an analysis of our data and a discussion of what we are learning from them raise issues that are worth the WAC community's attention.

WAC is a complex set of processes and practices that does not lend itself to a search for simple truths about its effectiveness. Rather than identifying universal or crisply denoted markers of success, WAC assessment demands attention to the local details particular to any given setting. Williamson (1997) notes that WAC assessors must include WAC participants (faculty, administrators, and students) in decision-making and must take specific situations into account to avoid conclusions not ultimately helpful to those involved in a WAC project.  In fact, the WAC assessment literature repeatedly recommends that evaluators turn to stakeholders as they set their research agenda (Walvoord, 1998; Selfe, 1998; Townsend, 1998).  Selfe (1998) captures this view when she aptly notes:

> contextual evaluation can provide faculty and staff with a dynamic sense of their own agency as professionals as a basis for encouraging and acting on their own reflective teaching practices." (p. 55).

While WAC assessment often focuses on faculty development and faculty issues and sometimes includes administrators' concerns, it rarely

begins with the student's perspective as the focus for analysis. This is paradoxical, since improving student writing and capacity for critical thinking is the purpose of WAC initiatives (Huot, 1998; Prior, Hawisher, Gruber, & MacLaughlin, 1998) and thus students are significant stakeholders in a WAC project.

As was noted earlier, our college's WAC project is still in its nascent stage. More than 30 faculty have attended WAC faculty development sessions, writing-intensive courses in various disciplines are running during Spring 2002, and a cadre of five graduate-student Writing Fellows work closely with faculty in different stages of planning and implementing writing-intensive courses. At our college, a writing-intensive course incorporates informal writing-to-learn activities and requires 10-12 pages of formal writing with opportunities for revision based on feedback from the instructor and/or peers. A significant percentage of the student's final grade is based on the writing component of the course.

**Methodology**

When we began our WAC assessment, we asked Professor Donne, who teaches American government, and Professor Fern, who teaches developmental psychology, to select a student from their writing-intensive course who would be willing to speak to us. Lisa interviewed Professor Donne and the American government student Diane, and Rachel interviewed Lata and her instructor, Professor Fern (all names have been changed). In addition, we collected short writing samples from the students in Professors Donne and Fern's writing-intensive classes to compare these students' responses with Diane's and Lata's. These students wrote in response to this question:

> *Please think about one piece of writing you've done for this course. How has it helped you learn American government or psychology?*

We then analyzed the four interview transcripts and the 39 writing samples, 23 from the American government class and 16 from the developmental psychology class, using the constant comparative method (Strauss & Corbin, 1990).

**Introducing Diane and Lata as Students and Writers**

Diane is an Early Childhood Education major who is a native-born speaker of English. She is 20 years old and in her second semester, having transferred from another school. She works as a substitute teacher in

a childcare program when the hours fit with her daytime schedule at the college. At the time of her interview she was completing a writing-intensive section of the introductory U. S. government course that is required for her major. She did not know before registering that the section would be writing-intensive. Had she known, she said, she would not have enrolled in it.

Lata is a Nursing student who is an immigrant from Guyana. She is 45, married with teen-age children, and in her third semester at the college. She also works in a childcare program, but as a full-time worker while she takes two evening courses at the college. She was enrolled in a required upper-level developmental psychology course that was billed as writing-intensive from the start.

Both Diane and Lata are good students with GPA's well over 3.0 and are reflective about their learning styles, but they see themselves differently both as students and as writers. Diane described herself as an "in-school type person." She said,

> I love to come to class and hear the professor talk. But to come home and do a report, that's what turns me off. I'd much rather a little homework, a few tests, but research papers…no, I don't like that.

In contrast, Lata felt writing is "a way of expressing oneself," a way with which she is comfortable. While Diane depicted herself as a rather passive student, Lata described herself as active. Lata, comparing writing with multiple-choice assessment, said about herself,

> I attack every part of my education in the same way. The same conscientiousness that I put in my writing I will put into reading or studying to do my multiple-[choice] test.

Diane and Lata's similarities and differences, which we discuss below together with other data, indicate that the processes of writing, tapping personal knowledge, and engaging with content are the main building blocks in these students' construction of knowledge.

## Writing: To Learn or To Show What You Know?

Diane's instructor, Professor Donne, and Lata's instructor, Professor Fern, spoke about writing as a process of grappling with ideas and exploring content, a way to assess students' acquisition of knowledge of American government or developmental psychology, and as preparation for what students would do in the future. Toward these ends the instructors used

writing-to-learn exercises as well as extensive graded writing projects. Nevertheless, our two student subjects and most of the students from whom we solicited writing focused primarily on their writing-to-show.

Diane and Lata did speak briefly, however, about writing as process. Diane said that she learned from the act of writing, not from her professor's comments.   She reiterated that she continues to struggle to develop her ideas fully whether she is speaking or writing.  Lata, on the other hand, reported that her professor's and classmates' comments helped her to know whether she was doing the assignment correctly and that she learned that one must be very clear when both writing and speaking.  Diane was some-what vague as she spoke about the process of writing, and Lata focused on the writing product, not on the process involved.  They both spoke at greater length and more specifically when discussing their assignments, which they described as reflections of what they knew and did not know.

Of the 39 students who wrote about a favorite informal or formal assignment they did in Professor Donne and Professor Fern's classes, twelve wrote about the actual process of writing.  Most of these students talked about using the Internet, learning how to do a bibliography, and knowing writing was important, whether they liked it or not.  Only three talked about the relationship between writing and thinking.  One American government student wrote:

> Before each class we're assigned questions to answer, and these ques-tions we have to read and write our responses to.  This helps us to clearly understand and prepare for the day's work ahead.

A psychology student wrote that writing her autobiography for her devel-opmental psychology course helped her to organize her thoughts, catego-rize details, and express her thoughts in writing.  Another psychology student said the writing-intensive course helped her "by improving some of my vocabulary and my way of thinking.  It helps me to think faster and write without fear of sounding stupid."

These three students were unusual, though.  Most students wrote—and Lata and Diane spoke—primarily about conveying content through writing.  As we listened to Diane and Lata, we found a pervasive theme in the connection they made between knowledge and writing.  They rarely spoke about writing without referring to their personal knowledge or to their lack of knowledge in general and the impetus they felt to gain knowl-edge of what they were writing about.  Diane and Lata never mentioned writing as a process that engenders thinking, but rather spoke of it as a

way to display knowledge that they already had or had acquired as part of their work for the course.

*Personal Knowledge and Generative Themes for Constructing New Knowledge*

Laughing, Professor Fern said in her interview:

[I]n something like psychology where [the discipline is] about people, you want it to be about **these** people that you're with. You don't want it to be about some other that's over there.

In keeping with this statement, half of the sixteen students in the psychology class who gave us writing mentioned their personal involvement with the subject matter of their favorite writing. They said, in reference to their autobiography assignment, that to "review my culture and my life," "to remember a lot of things in my past that I never knew I could remember," and to "understand more about me" were important components of their writing. One student wrote that she "can identify many things that I have experienced growing up in life through theories that my professor has demonstrated to the class," precisely the connection for which Professor Fern hoped. Another student wrote:

I get knowledge by going over and writing my own experiences. I never knew that my "experiences are my knowledge." Also, I start looking at each issue with more understanding. We discussed issues such as culture, religion, and childhood [through] our own experiences.

Through the writing they did for this class, this student came to recognize a knowledge source everyone has but of which this student was previously unaware.

American government students did not write about their personal involvement in the same proportions. Only four of the 23 respondents in that class wrote about their personal connection to the subject matter. Three of them wrote how one of Professor Donne's assignments helped to make them more politically active. For this assignment, they found out where their elected representatives stood on an issue of importance to the student. A fourth wrote:

The paper that I did in this class was really helpful to me, because I chose the issue. Then I was motivated and had more interest in the topic than if I would've written a paper about a designated topic.

This student confirms the importance of student ownership of learning

and the way in which writing can be a vehicle for that ownership in classes that are traditionally taught in a lecture format where the professor presents the content.

Not surprisingly, Diane and Lata, too, said they find writing easier when they already know something about what they are writing about or when the topic is of personal interest. Both talked about their interests and about how they apply knowledge gained in the course to their personal lives. Diane complained that she is not "good at" writing because "I'm not creative enough. I don't know how to expand on the point." Even in her Early Childhood Education classes, which she said interest her and in which she can draw from her experience as a substitute teacher, she said, "I just get right to the facts." She thought she did better in her health class "because it was personal," but even then the professor had to ask her to "expand [her] opinion." Diane, while critical of her own writing ability, seemed to believe that she is more successful with personal writing. When she can write about something personal, she feels knowledgeable, knows what to say, and is more likely to be specific and write in greater depth.

Diane's favorite assignment in her U.S. government class illustrates Schor's (1992) statement that "[g]enerative issues are found in the unsettled intersections of personal life and society" (p.55). She said, "I mean, [Professor Donne's] writing project about the representatives…. That was interesting because it had to do with me." This is the assignment, in the professor's words:

> [Students had] to find out who their elected officials are at the city, state, and federal level.... I ask them to pick an issue that they care deeply and passionately about and tell me why they picked that issue—why it is important to them—and then go find out who their representatives are and what their position is on this issue. And then what was the process like for them to find out…? How did they feel when they found out that that person was aligned with that issue or has a different position from them? It's sort of like a "who dunnit" project.

Reflecting on the assignment, Diane said she was nervous about contacting her elected officials, but feels good to have done it. As the course progressed and she worked on the assignment, her curiosity expanded. Her interview comments demonstrate that despite her insistence that she "can't do it," she is indeed beginning to think critically about additional

issues about which she cares:

> But now there's a whole lot of things I want to know. Like I could have asked [my elected representatives] about education, like about the [university] budget cuts, now I want to know about that.

As a result of her favorite writing assignment she can tie her issues of concern to concepts the class discussed. As she spoke in the interview she demonstrated that she was able to integrate the exercise conceptually, thus constructing or "generating" new knowledge. Interestingly, despite her overall sense that she did not like writing, she did not complain about the writing for this assignment.

Lata, too, particularly enjoyed writing activities that related to her life and her immediate concerns. When she talked about what she liked about writing in her psychology course she said:

> I work in a day care. And, while working or before working, I never did any research on this topic. Certain things I never knew, right? And while writing, while doing my research, I became a little more interested in my job. Yeah!...I know that we have a curriculum, but the thought never [struck] me that, you know what, these kids are coming here for the first time, and they have to adapt to our curriculum, you know? So by reading, by doing my research, certain things, you know, strike me, yeah.

To provide quality infant care, Lata must be aware of and avoid this disconnect between what caregivers do and the life patterns of infants and toddlers. The research she did in order to write for her developmental psychology course illuminated this insight for her.

Lata said she saw the applicability of her psychology course when what she did there "pertains to everyday life." She was enthusiastic about writing about child care, an arena in which she already had a lot of practical experience, just as Diane enjoyed researching and writing about a topic she chose and about which she wanted to know more.

*Not Knowing and Wanting to Know: The Process of Gaining New Knowledge*

Lata expressed amazement and excitement when she learned new information through her writing that she could apply to her everyday life on the job. She also was delighted when the research she did in order to write led her to interview an individual who told her something that she had not thought about before. In an interview with a 64-year-old with a

visual impairment, Lata discovered that her ideas about older people and work were not necessarily true.

While Lata spoke about not knowing and then coming to know in preparation for writing, Diane spoke about not knowing and the relationship between that and her lack of self-confidence as a writer. At one point when she was explaining the difficulty she has elaborating upon her ideas, she said that at the start of the semester she couldn't add details and examples when Professor Donne asked the class to write about democracy "because I didn't understand politics, so I guess that was just my broad view, just the basics." By contrast, Professor Donne sees writing as the opportunity to "flesh out [concepts] more systematically." He said in his interview:

> What I like about...writing is that it forces them to, allows them to grapple with and spot what they are thinking or feeling about what they've just read…especially if it gets kind of heated as social and political issues can. sSo it forces them to stop and reflect on what they've just heard or read and process [it] in terms of a specific question.

Professor Donne thinks writing will force students to think and, thus, understand the content of his course better.

Diane implies that she cannot write—she cannot begin to do the fleshing out that Professor Donne anticipates—if she has no knowledge about which to write. Lata seems to concur, not by agreeing in so many words, but by repeatedly referring to her processes of finding out new information to include in her writing.

Professor Fern, too, emphasizes the role of knowledge, but unlike her student, Lata, she immediately links it to the process of learning psychology when she says:

> I found that in the first exam students had really very little to say about psychology, which doesn't necessarily hold for all subjects. I think that it's a new vocabulary with a new set of concepts and that we learn with old words, and we learn new words for old concepts, to elaborate them. So, I decided that's what was operating here, and whatever [the students] had to say wasn't coming out in sentences at that point.

This early in the semester, Professor Fern speculated, before students had learned the language of the discipline, they lacked the tools to write about it. Only later, after the students developed a foundation through reading,

lecture, and discussions, could they write about their knowledge and construct new knowledge through their writing.

When Diane and Lata spoke about the role writing played in their respective writing-intensive courses, they referred most often to how the writing pushed them to acquire knowledge. Lata repeatedly said, "because I had to write, I found out these things." She learned psychology because she had to know about it in order to write about it. She did not say that the process of writing, other than the research itself, led her to knowledge about psychology:

> [I]n our writing course, our long paper, our short paper, or our interviews, right, the topics pertained to psychology. So we really have to do some research. And by researching we learn a little bit more of the topic that we are going to write on.

She found that she "had to go more into the topic" because she was writing about it.

Diane likewise reflected on the knowledge she gained about American government and the role writing played in that process:

> I think [the professor's] writing projects backed up what we were learning. So we were learning about government and who our representatives are, and we had to write to back up our learning. Like it just expanded it for us.

Diane and Lata focus on knowledge. Kennedy, Kennedy, and Smith (2000) also regard research and writing as a way to acquire knowledge, but go further when they explain to students that:

> Professors typically assign research papers to make you an active, independent scholar, who is able to first locate other people's ideas, and second, to analyze and synthesize those ideas and come to an independent conclusion. In a sense, studying research methods is *learning how to learn* (p. 144, emphasis in original).

Diane describes writing as a reinforcement for what she learned by reading, asking questions, participating in discussions, and listening to lectures. It would have been constructive, however, for her to reflect, as Kennedy et al suggest, upon how the thinking she had to do to put words on paper extended what she learned in this class .

Diane, Lata, and the other students talked about not knowing and about finding out. They talked about wanting to know more and their delight in learning things they didn't know. The emphasis for them is on what they have to know to be able to write. Thus, writing is both their

impetus for seeking knowledge and the vehicle for displaying that knowledge. It also helps them to apply abstract concepts to concrete situations. What they may not realize is that they are engaging in a process of creating knowledge that is entirely their own (Kennedy, Kennedy, & Smith, 2000).

**Implications**

Weissman (1990) discusses "illumination" as the product of a creative endeavor, such as writing:

> Illumination refers to the moment of insight when a person first becomes conscious of the solution to a problem. It is not necessarily an instantaneous revelation. There could be a number of small incremental revelations that add up to something larger (p. 123).

He further discusses the need for "data and ways to manipulate that data [sic]" (p. 124) in order for illumination to occur. Although he was referring to the generation of new and innovative ideas in social work, the concept of "illumination" or creating new knowledge from what one has mastered is applicable when discussing how students generate knowledge through the writing process. For our purposes "data" can be understood as "content" or information that students master and that instructors intend for them to learn via writing assignments. As students do research, manipulate data, and engage in the process of writing, they develop the skills they need to craft a piece of writing. Interviews and written statements from students discussed here suggest that students use the process of writing, their personal knowledge, and the content they find in their research to construct knowledge, in this case about American government or psychology. While most of them seem unaware of the import of these three building blocks, their writing-intensive courses offer these building blocks to them.

Whether instinctively, through experience, or by design, the instructors we interviewed crafted writing assignments that drew initially on students' personal experience. This was one of the three building materials that students and instructors discussed in interviews and in students' written statements. Students were thus able to use their personal experience as a critical resource for constructing or, as Schor (1992) puts it, generating new knowledge. We observed how personal experience was the impetus to learn more, how the lack of knowledge about a familiar subject stimulated curiosity, how newly acquired research skills offered

the tools to gain new knowledge or illumination, then how knowledge that began as "new" became familiar and "personal," thereby allowing students to see gained knowledge as owned knowledge. Through this process, with writing as the foundational vehicle transporting the basic materials—a combination of content, craft, and what is familiar—students can construct new knowledge and ideas.

We, too, have experienced "illumination" through our process of research and writing. By examining the writing-to-learn process as it is experienced and articulated by these students and instructors, we have started to look at our own teaching practice differently. We become more reflective teachers as well as more effective assessors, able to shed light on and reinforce the most elemental yet essential components of WAC pedagogy.

Our next step can be to develop strategies for faculty and students at our college to articulate this multifaceted process and to become more aware of how they are teaching and learning through writing. This study suggests that from the student perspective, and perhaps also from the point of view of faculty, the culture of writing-to-learn is still new and largely uncharted territory at our college, one that instructors can map out clearly with students.

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