

FINDING HARMONY IN DISHARMONY: ENGINEERING AND ENGLISH STUDIES

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A consultant walks into the University of Alabama–Huntsville Writing Center, sets her books on the desk in the back, and finds an unoccupied computer station to check her schedule for the day. She clicks on the name of her first client and glances down at the summary section of the dialogue box: “I need help with my ISE paper,” the student has written. *Hmm, an engineering student*, she thinks with a little apprehension, as she prepares herself for a challenge. A group of engineering students then floods in, accompanying the one who actually made the appointment. They explain the project on which they are writing—a type of project she has never written before, a type of project with which she has no previous experience. She wonders if she will give appropriate advice or if she will be able to think of anything to say at all. She wonders if she will even be able to understand the intricate, jargon-laden draft. Then she takes a deep breath, knowing that these students are looking to her for help, and starts asking questions.

This is a hypothetical example of how a writing center consultant might feel about working with a student from an unfamiliar discipline. Although consultants work with students from a wide range of disciplines every day, informal talk among consultants and formal discussions at monthly staff meetings frequently reveal a common insecurity about working with students in unfamiliar disciplines. However, since writing centers rely on building successful relationships with students, consultants must understand how to initiate effective interaction with all students, even those with subjects outside their comfort zone. Because UAH has a large engineering college and because many of our writing center consultants are English majors, we decided to focus on the relationship between these two disciplines. Although various articles discuss the writing center’s significance in merging the gap between the engineering and English departments, very little research exists on the interpersonal relationship that develops between writing center consultants and engineering students, and even less on the strategies used by consultants within these relationships. Therefore, we decided to conduct research to explore the similarities and differences in consulting strategies when working with engineering and English students. Although we expected consultants to communicate more effectively with students from English classes than with engineering students, we found the opposite. While the consultants we observed exhibit the supportive behaviors central to writing center pedagogy, their familiarity with English papers lets them be controlling and assertive with English students. Conversely, their lack of familiarity with engineering forces them to remain engaged in an open and equal dialogue with those students. By relying on questions, the consultant in our opening scenario does exactly what consultants should do with any student. While we do not suggest that lack of knowledge or expertise itself produces effective consultants, our counterintuitive discovery does remind us that emphasizing supportive consulting strategies during consultant training is crucial; moreover, in light of this conclusion, we may need to train subject-area “experts” differently than “non-experts.”

Literature Review

Our study required background research on writing in the engineering discipline, the role of writing centers, and the Gibbs Communication Model of consulting with students. Since our goal is to help bridge the gap between engineering and writing, which is usually associated with English courses, we must establish some background on writing in the field of engineering and define the gap between the two disciplines.

Current scholarship explains that engineering as a discipline and career involves a good deal of writing. For instance, Stephanie Nelson claims that writing can help engineers “think, act, and evaluate” tasks in their field (2). However, Charlotte Brammer and Nicole Ervin indicate that engineering courses may not always prepare their students for the writing they’ll do on the job. Their article establishes the need for engineers to develop better writing skills. Carol Kramburg-Walker reiterates this need and goes further to point to English departments’ obligation to help “provide writing support for academic engineers” (130).

With this need in mind, some writing centers and English departments collaborate with engineering departments. Most recent scholarship on such collaboration focuses on college-, department-, or faculty-level programs rather than on interaction between students and consultants. For example, Elisabeth Alford discusses the University of South Carolina’s program working with faculty and staff to design coursework and with students in groups or one-on-one to improve individual projects. Also, Erik Fisher, Michael Ursey, and Heather Beasley show how the University of Colorado–Boulder implemented university-wide strategies to increase effectiveness of engineering writing assignments and improve engineers’ writing skills. And Meredith Green and Sarah Duerden describe an Arizona State University program that implemented more writing into the engineering curriculum through problem-solving exercises involving teamwork. Although these articles demonstrate ways opportunities are increased for engineering students to practice writing and receive feedback and support, the research does not discuss interaction *strategies* for providing this feedback and support to engineering students.

However, one in-depth analysis on “writing tutors’ comments” by Jo Mackiewicz does discuss consulting strategies during four consultations—three involve writing tutors who have no experience with engineering writing and one involves a tutor with twenty years’ experience in engineering writing (318). The study showed that the tutor with engineering experience not only gave useful advice on writing but also established rapport with the student. On the other hand, the other three tutors focused only on mechanical elements of the students’ work, confidently giving incorrect advice. Mackiewicz therefore concludes that experience in the field allowed the first tutor to respond more effectively than those without experience (326). If nonexperienced tutors had more training in engineering writing, she claims, their comments would improve.

Our research revisits Mackiewicz’s study by analyzing how consultants interact differently with English and engineering students. We noticed that besides the difference in expertise among the tutors in Mackiewicz’s study, there was also a difference in consulting strategies: the effective tutor was also an effective communicator. Paulo Freire explains why effective communication is so crucial in such settings: “Authentic thinking, thinking that is concerned about *reality*, does not take place in ivory tower isolation, but only in communication” (58). In writing centers, this communication involves both the inquiry and guidance of the consultant and the input of the student. Freire offers a reason why using an inquiry model is so important in writing centers: “Any situation in which some individuals prevent oth-

ers from engaging in the process of inquiry alienate[s] human beings from their own decision-making” (66). As consultants, we do not want to hinder students’ decision making but guide it.

To assess whether or not our consultants are using this inquiry model to guide students, we chose to apply the Gibbs Communication Model to several consultations because it explicitly draws distinctions between supportive, assisting behaviors and defensive, controlling behaviors and helps us see if we follow our own definition of effective consulting. In the *Writing Lab Newsletter*, Beverly Menassa lists and explains six sets of contrasting behavior outlined in the Gibbs model: evaluation versus description, control versus problem orientation, strategy versus spontaneity, neutrality versus empathy, superiority versus equality, and certainty versus provisionalism—each set naming an unsupportive behavior and its supportive contrast (4–5). For example, to support the student, the consultant should *describe* what a student is doing in a paper and respond to it rather than *evaluate* it. We should identify the *problem* and offer suggestions rather than *control* the solution. We should *spontaneously* and openly respond to the student’s ideas rather than *manipulate* them. We should approach students with *empathy* rather than *indifference*. We should present ourselves as *equals* to the students rather than *superiors*. We should present our suggestions as one option rather than the only course available for revision.

Methodology

Data Collection

To analyze differences in how consultants interact with engineering and English students, we recorded and transcribed four half-hour consultations—one of each field with two different consultants—to compare how each consultant works with both an English and an engineering student. We selected participants by randomly choosing two engineering student groups from the fall 2006 Engineering Economy (ISE 321) class who had made writing center appointments. We then recorded the two consultants who worked with these groups in English consultations. While separate, both English consultations happened to be with the same student, which did narrow our sample. However, both consultants happened to have written papers for the student’s instructor on similar topics, so we could specifically consider how their familiarity influenced their interaction with the student and how it differed from their interaction with the engineering students. One consultant was an undergraduate with approximately two months’ experience in the writing center, and the other was a graduate with approximately two years’ experience there. With only two consultants, we cannot account for how differing consulting styles may affect their interaction, but having consultants with different levels of experience helped us speculate about how much training may affect interaction. Future research could easily broaden this sampling to include different personalities, cultural backgrounds, educational backgrounds, and fields of study among consultants and students, but this research offers us sufficient data to begin questioning how familiarity affects consulting strategies. These four consultations provided two solid hours of conversation in which we could look very carefully and analytically at specific moments of student-consultant interaction.

Procedure

After recording and transcribing the tapes, we analyzed the data using the Gibbs Communication Model. Although we were unable to observe nonverbals such as tone of voice and body language, which can influence supportive environments as much as what consultants say, we were able to closely analyze verbal interaction. We used four of the model’s comparative components to decide whether

consultants' strategies fostered an environment that was supportive and advantageous for feedback or one that was defensive and discouraged adequate responses. We began coding the transcripts separately; however, we continually had to compare notes because terms often bled into one another and became open to interpretation. Consequently, we decided to articulate more specific definitions upon which we all agreed (see Table 1). After defining exactly what type of interaction should characterize each strategy, we reread the transcripts together, coding instances of each. When we cite specific examples in our discussion, we will use pseudonyms to refer to consultants, calling the undergraduate Anne and the graduate Micki.

Table 1
Defensive and Supportive Communication Strategies

Defensive	Supportive
Control —the consultant says, “Don’t do that, do this”	Problem orientation —the consultant gives students general advice and suggestions on content issues
Superiority —the consultant provides the material rather than prompting students to generate the ideas themselves	Equality —the consultant asks for information and encourages students to participate in finding solutions
Indifference —the consultant lacks interest in the students’ ideas	Empathy —the consultant is supportive and confirms the students’ ideas
Certainty —acting almost as a teacher, the consultant offers definite suggestions with no room for options	Provisionalism —acting as an audience member, the consultant’s phrasing suggests that her advice “may be the case,” displaying her uncertainty with specific subject matter

Adapted from the Gibbs Communication Model.

Results

English Consultations

The student in the two English consultations is constructing an argument essay on *Joseph Andrews* for her eighteenth-century literature class. Although she doesn’t have a draft yet, she comes in for help with brainstorming to formulate her ideas. The student consults with Anne, who is currently taking the same class, and Micki, who had previously taken a related class from the same instructor. Consequently, both consultants are familiar with the novel, period, and teacher. During the consultation, the student’s main concern is finding a focus; essentially, both meetings involve brainstorming and discussing possible directions for the essay.

Both Anne and Micki initially respond with supportive empathetic behavior. They tend to reply with affirmations such as “Right” and “Okay” when listening to the student’s ideas, showing interest in what the student has to say. Micki also uses supportive equality behavior when first interacting with the student by asking her thought-provoking questions to encourage the student’s participation in the meeting. She tells the student, “So, if that’s a workable thesis, which I think it is, then how are you going to talk about that so you prove that?” Anne exhibits this same behavior, but she uses it less often and toward the end of the session. At the beginning, Anne mostly affirms the student’s explanation. Near the end, she does ask questions to prompt her to find her own solutions. When the student *asks* questions or *invites* suggestions, Anne and Micki provide advice (problem orientation). Anne tells her

student, “We’ll try and come up with a kind of outline.” However, they qualify their advice so the student is the ultimate decision maker. They make suggestions for revision, but they moderate these suggestions with phrases such as “What you could do is . . .,” “I think . . .,” “You could look at . . .” to make sure the student selects all final decisions.

Conversely, despite Anne and Micki’s use of supportive behaviors, they also employ defensive behaviors with this student, specifically superiority. At times, they include too much of their own knowledge when giving suggestions to the student. This technique silences the student’s ideas and shifts ownership of the paper from the student to the consultant. For example, in Anne’s session, she corrects the student’s ideas, adding her own knowledge rather than prompting the student to generate those ideas on her own:

STUDENT: I think Fanny’s well bred. What about her station? Is that right?

ANNE: Fanny is . . . not well bred.

Here, because the student asks the consultant’s opinion, Anne becomes the responder and contradicts the student’s ideas. She closes off the interaction instead of inquiring or probing into *why* the student thinks Fanny is well bred. The conversation continues with the student asking:

STUDENT: She’s not well bred?

ANNE: No, she’s . . . Fanny’s kind of an issue there too in a lot of ways because she’s . . . been . . . she comes from humble origin. She didn’t even know who her parents are. Um, and, and, she’s relatively common, but she’s in a noble’s household.

STUDENT: Right.

ANNE: Um, and she’s a . . . I believe she’s a lady’s maid in a noble household, which gives her a certain knowledge of breeding, so she’ll, she’ll have picked up on and learned the behaviors of a well-bred woman.

STUDENT: Okay.

In this exchange, the two speakers switch roles. The student questions, and the consultant answers. Such behavior illustrates the consultant’s superiority because she imposes her knowledge and ideas of the novel on the student. Rather than asking the student what Fanny’s origins are or what the character knows about her parents, Anne provides that information, no longer using assisting behaviors that encourage the student’s participation. Instead, the student uses the supportive behaviors Anne should be using, such as questioning and affirming Anne’s statements with “Right” and “Okay.” After this exchange, Anne immediately moves from this issue about Fanny to suggesting how to address these ideas in the paper:

ANNE: . . . um, you, a good way to incorporate her would definitely be to talk about, um, the similarities between Leonora and Fanny.

STUDENT: Okay.

Again, in this situation, Anne tells the student how she should put these ideas into the paper instead of asking questions to get a sense of what points the student wants to convey or how the student might want to address them. By simply telling her what to do, Anne controls the situation, and like the former exchange, the student is the one affirming ideas and saying “Okay.” Anne’s defensive strategies are problematic because they can make the student feel inferior to the consultant and inhibit the student from exploring ideas or possible ways of articulating them.

Like Anne, Micki utilizes her own knowledge and inhibits the student from discovering ideas on her own. For example, Micki uses her experience with the instructor to control the direction of the consultation: “When I had him, I wrote on Landers, and he took exactly the opposite view that I did, but

it didn't hurt my grade." Micki's advice in this instance positions her as superior to the student and an authority on the instructor. Moreover, Micki also employs her knowledge about the time period:

MICKI: Right, another reason, and yours is justifiable. I'm trying to remember—this is the 1700s?

STUDENT: Yeah, 1700s, eighteenth century.

MICKI: Ok, right, there you go. So, in that time period, they were big into the pure versus the people that did things wrong.

STUDENT: Right.

In this passage, Micki again asserts her own knowledge rather than encouraging the student to supply ideas herself. Micki starts by asking the student the time period of the text, to which the student responds. However, instead of asking another question that allows the student to explore the time period's influence on the text, the consultant tells the student her own perspective of the era and how it might affect the content. Once more, the dialogue's structure illustrates the two switching roles: the consultant delivers information and the student confirms it, rather than vice versa. Besides using her knowledge of the time period, the consultant also shares her knowledge about the author of the text rather than asking for the student's ideas:

STUDENT: So why does he want to show you this? You get the story of this woman.

MICKI: And just knowing Fielding from *Tom Jones*, he loves that bad stuff. Here he's painting that person who's really good, but for some reason, and I think it's because he likes it and the people like it too—commercialism, that he's trying to make people keep reading it. You can only read so much about a good person and then say okay. You know?

STUDENT: Right. It's like could you please shut up about Joseph?

In this role switch, the question the student asks—"Why does he want to show you this?"—is central to the assignment. The student's job is to develop an analytical response to this question; the consultant needs to help the student understand this task and generate her own answer rather than immediately providing one. Micki could remind the student that this question *is* the assignment and that as such, it could have a variety of valid answers. After agreeing with the student that this question is a great place to start brainstorming, the consultant could discuss different possibilities and allow the student to choose an answer on her own.

Overall, the consultants use a variety of supportive strategies with the English student—empathy, equality, problem orientation, and provisionalism—which help prompt the student's participation and facilitate her writing process. However, the surprising discovery here is that the consultants *also* exhibit superior communication strategies, which foster a defensive climate and defeat the writing center's goal of providing students with a supportive audience.

Engineering Consultations

The engineering students whom we recorded scheduled appointments to work on their final research projects for Engineering Economy (ISE 321)—writing a final report for a hypothetical client that includes their recommendation for the most economical solution to a real-world problem. Throughout the semester they had deadlines for portions of the research, all of which they needed to compile in the final report. Anne worked with students who brought in a draft from a previous project but had not started drafting the final report. Micki worked with students who brought in an actual draft of the final report. Both consultations followed the same general pattern of opening remarks, establishing what the assignment was, offering suggestions, and answering questions.

Through the first several lines of the consultations, Anne and Micki use equality strategies by asking questions to prompt the students to explain their project and discuss their ideas. For example, Anne begins the consultation:

ANNE: Okay, uh, what's your project on . . . before we . . .

STUDENT 1: We had to evaluate several cars that we . . .

ANNE: Okay . . . and you came up with the rating system and . . . um, well, do you have some kind of like setup or anything or, ooh, a draft . . .

STUDENT 1: Yeah, this is [. . .] what we turned in for the previous part of the assignment . . .

ANNE: Okay.

STUDENT 1: . . . but we were, didn't know what direction to go in from here.

ANNE: Alright, so in developing it into a final . . .

STUDENT 1: Yeah.

ANNE: . . . copy.

Here, Anne asks a series of questions to learn more about the assignment and where the students are in the writing process. These position her as equal to the students and prompt them to actively participate in the consultation. Encouraging their participation helps the consultant find out what the students' needs are. Similarly, Micki asks a question to assess the students' needs:

MICKI: [. . .] The people who have come in the last week basically hadn't written the paragraphs that go with their analysis. Have you done that?

STUDENT: Yes, we've got pretty much the final report written.

With this exchange, the consultant learns that the students have a draft of their assignment. Both consultants, then, use questions to establish where the students are in the writing process and what they want out of these meetings. Whereas Anne discovers that the group has pieces of data and needs to work toward a draft, Micki discovers that her group has actually written a draft and wants her feedback on it. Throughout the meeting, they also confirm and encourage what the students say (empathy) with words such as "Okay" and "Right."

As the English student does, the engineering students ask the consultants for advice or suggestions. The difference here is that Anne and Micki avoid appearing superior to the students by replying with provisional suggestions or more questions, rather than telling the students how they should handle their problem. As Micki reads through her students' draft, she points out specific statements and asks questions about them. She reads aloud, "'It's not as safe as it used to be'" and then asks, "Has it ever been safe? I've been here nineteen years, and it seems like it's gotten worse." Here, Micki addresses a statement that concerns her. With her question "Has it ever been safe?" she asks them to reevaluate this point because she has a different perspective. By telling them she's been here nineteen years and by using the provisional term "seems," she presents this as *one perspective*, not a fact, leaving it up to them to decide how to address her question. Later in the draft, Micki points out another issue about which she has a question:

MICKI: Oh, and I don't know if this matters, but if you're trying to stick to the point, "the job is demanding on his vehicle." Do we really care if it's demanding on him?

STUDENT: No, not really. It's just extra.

MICKI: Yeah.

STUDENT: I could cut that.

Here, she points out text that does not seem relevant, but she does not simply tell the students to

delete that sentence. Instead, she asks and leaves it up to them to answer if “we,” the audience, need this information (problem orientation). Micki leaves it as a question, and the student concludes, “I could cut that,” demonstrating that he, not the consultant, is in control.

Anne also uses provisional statements demonstrating her uncertainty, position as an audience member, and willingness to let the students decide what choice to make. For instance, in the following interaction, Anne follows a suggestion with a concrete example:

STUDENT 2: You’re saying, like, should we put how we rate the cars and in this paragraph, talk about his car.

ANNE: Alright, the Civic Hybrid, for example, how did you come up with the results you got for it? How did you look at the price? How did you look at the luggage capacity, the safety of this car, etc. . . . Basically, because these are the cars you looked at, you’ve got to be comprehensive in writing your paper here; you’ve gotta go through each car because cars and the way you analyzed them impacted your final decision, so it’s important that we see the decision-making process in the first place. Alright. Does that kinda make sense?

With this explanation, Anne provides the group with a list of questions and then explains why she thinks they’re important—the readers need to see how these decisions impacted their *final* decision. She does tell them that showing their “decision-making process” is necessary, but she still asks them questions (equality) and leaves them in control (problem orientation) of *how* to address her concern. Later, Anne includes a similar series of questions to suggest what the group can add to clarify their ideas:

ANNE: You need to tell us what it was you were looking for in the first place. [. . .] You give us the scenario in the introduction and what it was you were looking for, but what exactly did you decide would . . . what attributes did you decide would fit that solution? For example . . . alright, you need a car. What kind of car is it that you were looking for?

STUDENT 1: We’re looking for a compact car, that, car with, that has a good gas mileage.

ANNE: Okay. You’re looking for a compact car with good gas mileage. What is it that makes a good compact car, and how did you decide that? You’ve cited luggage capacity, safety, horsepower, reliability, and warranty were the important factors, and miles per gallon, were the important factors in a compact car. How did you come to the decision that those were the attributes you would use in your rating system?

Anne begins this conversation by recounting what the students have already done in the paper—describing the scenario—and then asking how they moved from identifying the problem to identifying what would solve it. After the student tells her what kind of car they are looking for, she then lists questions that will help them discuss how and why they came to that decision. Her questions demonstrate equality—as she does not act as a superior by asserting her own knowledge—and problem orientation—as she notes a portion of the text that concerns her and offers suggestions on how the students might revise it. Furthermore, when the students ask Anne a question about how to write as a group, she hedges her comments, giving several options rather than the one “right” way to do it: “You could do it both ways and kind of blend methods and, you know, get together as a group and then assign each [. . .] person to write a certain thing.” Here she uses “could” to present her comment as a suggestion, not a mandate.

With the engineering students, the consultants use supportive communication strategies rather than defensive ones. By demonstrating equality, empathy, provisionalism, and problem orientation,

they do not position themselves as superior to the students as they sometimes did with the English student.

Discussion

These results suggest that the consultants' familiarity with English topics can become a hindrance to their ability to support and facilitate the student, allowing them to use their experience as a means of assertion and superiority. By stating that they know or are familiar with a specific topic, the consultants attempt to persuade the students that they know the best way to interpret the text. This approach is particularly problematic because, as the Gibbs model suggests, it promotes dependency and discourages responses from the student. Although the consultants are sometimes empathetic and supportive, their experience usually becomes a means of dictating, via superior communication strategies, that there is a right way to interpret a text and they know how best to do so.

Because the consultants are less familiar with engineering topics, their approach to engineering students' questions and comments during consultations demonstrates more equality and support. The consultants' lack of familiarity with engineering topics allows them to ask questions that are consistent with Gibbs's "equality." When Anne asks several questions about how the students got their results, her asking a question instead of providing the answer, as she does with the English student, positions her as an equal and not a superior. Uncertainty with the topic also allows the consultants to use "provisional" language to navigate through specific areas. Interaction with engineering students is less "manipulative" than with the English students and more "spontaneous." Therefore, both participate in ensuring that the consultation is effective.

Ultimately, the consultants' familiarity with the English topics becomes a temptation to control the interaction. Since they have knowledge of or experience with the topic, they *can* use it, whereas in the engineering consultations, they are forced to question instead of answer because they lack familiarity and experience with the topics. Writing center theory constantly reminds us that consultants should use an inquiry model in which they remain equal with and supportive of students (Kinkead and Harris; North; Olsen). Consequently, whatever amount of experience they have with a topic, they should replicate the questioning format that Anne and Micki use with the engineering students. In practice, writing centers inevitably end up with both subject area "experts" and "non-experts." This situation is not necessarily problematic if writing centers learn how to address it: since everyone cannot be an expert, centers must develop effective training for both roles. It may be telling that although both Anne and Micki use controlling techniques during their consultations with the English student, Micki uses them less. Perhaps extra years of experience and training have helped Micki communicate more supportively—suggesting that training might be the key to addressing this potential problem.

For both groups, we want to stress using questions and suggestions to create the supportive climate of the Gibbs Communication Model. We want to warn subject area experts about the potential problem of using their experience to create a defensive climate, and provide ways to avoid this situation. For instance, instead of responding to a student's question with a definitive answer, like both Anne and Micki do with their English student, consultants could respond by rephrasing the question back to the student or by providing several options for answering the question. And while acknowledging that lack of expertise may not be the best-case scenario, we can show non-experts how it can be used to their advantage. Specifically, when they are unsure about a subject, they can ask the students to clarify their point, which is the strategy consultants *should* use in any situation. By asking questions, they use the problem-orientation strategy instead of controlling the situation by solving the problem them-

selves. Non-experts naturally question the students because they are uncertain about the subject matter, but experts should question as well because they need to assist, not control, students.

Even though expertise can be problematic, we must admit that uncertainty can be problematic as well. While showing the students that consultants are equals, and therefore often uncertain, is a positive outcome of non-expertise, the consultants do not need to allow this conclusion to stop them from answering students' questions. For example, this conversation between Micki and an engineering student is problematic:

MICKI: Up to the number nine, you spell it out. Since this is a technical paper, I don't know.

STUDENT: That's the way I've always done it.

MICKI: However, technical papers may be different. I can't say. I would think that they'd rather see the numbers because it's an analysis.

In this instance, Micki admitting that she is unsure is better than covering uncertainty by confidently providing incorrect answers (as the inexperienced consultants did in Mackiewicz's work); however, letting an answer stand as "I don't know" is not particularly helpful for the student. Consequently, we should remind non-expert consultants to follow up such uncertainty by looking up information in writing center resources and encouraging students to utilize these resources themselves.

Moreover, using resources can also bridge between subject area experts and non-experts. Both groups need to make use of resources for several reasons. First, consultants should use resources in front of the students to be good writing models. Second, consultants should use them to remind students that they must support their ideas. When Anne tells her English student that Fanny is not well bred, she lists several reasons. Instead of this assertion, Anne could have disclosed that she had a different perspective and suggested they return to the novel to find more solid evidence. Third, consultants should use resources to check themselves on grammar, citation, and style conventions in different genres. When Micki tells her engineering student that she does not know whether technical writers use figures or words for numbers, she could have looked it up in a technical writing manual.

Conclusion

Through this research, we have discovered as writing center consultants that our consulting strategies may be more supportive with engineering students than with English students. The very uncertainty that concerns us may actually help us remain more supportive and less controlling during our interaction. Our knowledge and familiarity give us confidence that can easily translate into superiority, but in situations when we are not familiar with a topic, we have no choice but to use supportive communication strategies and follow the inquiry model we *should* follow at all times in the writing center. This gives us insight into the role of familiarity within a consultation and provides a basis to acknowledge the potential of using familiarity as a controlling tool. While writing center researchers should continue collecting more data to test this conclusion with a larger, more varied sample, seeing that these two consultants act superior in familiar situations warns us that subject area experts have more potential to succumb to using superior consulting strategies than do non-experts. This conclusion illustrates that non-experts can still be a valuable resource to students while subject area experts should be careful not to let their knowledge inhibit the learning process and critical thinking of their students.

We would like to thank the students and consultants who allowed us to record and analyze their sessions and our advisor, Dr. Diana Calhoun Bell, who supported us with guidance and feedback through the entire process from idea development to revising our final manuscript.

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