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Research Mentoring

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Research Mentoring

By Michael W. Firmin, Ph.D.

As I glanced over at her, Amanda appeared tense. She tried to smile, but her anxiety made it difficult. I asked her if she was OK, and Amanda forced out, "Sure." She wiped her palms and crossed her legs a few times. It was evident that Amanda was highly nervous.

She and I were sitting at the Association for the Advancement of Educational Research (AAER), a national conference for scholars presenting research papers. I have had the privilege of accompanying a number of students to these types of conferences since becoming chair of Cedarville's department of psychology, and the experience has been wonderful.

The speaker we were hearing was presenting the results of her Ph.D. dissertation. She was discussing statistical orthogonal rotations and then proceeded to path analysis and structural equation modeling. Amanda whispered to me, "This stuff is so far over my head; I have no idea what she's saying." Admittedly, the stats were complex, as they were in the other sessions we attended. Amanda's anxiety level was rising.

The next speaker began his session by indicating that his research study was rejected for



Amanda Burger and Dr. Michael Firmin

presentation by two other national conferences and that he was very grateful to have it accepted at AAER. He noted that he only presents at highly selective juried conferences. Amanda now began to squirm and lick her lips.

Photo courtesy of Michael Firmin

“Dr. Firmin, what in the world am I doing here among all these Ph.D.’s?” she whispered.

I replied, “Have you come to trust me, Amanda?”

“Yes,” she admitted.

“Would I set you up for failure?” I asked.

She winced. “OK, no.”

I concluded, “We have a solid research study, and our data will back us. We can go toe-to-toe with every Ph.D. in this room.”

With that, Amanda gave the smile I’m used to seeing. She pushed back in her chair a little, and though still nervous, appeared more at ease. We were the next presentation.

Introductions were provided by the discussant, a recognized leader on the topic being presented who is assigned to dissect the paper and begin an open peer review and critique of it. Often the discussant will make recommendations regarding his/her opinion of the work’s suitability for journal publication. Typically he or she has advanced copies of the paper and ensures that challenging questions are asked.

In prepping Amanda for the conference, I indicated my custom of allowing the student to do most of the presenting. I do not need added experience, but the student finds it highly valuable relative to professional development. Consequently, I advanced the slides while Amanda presented the entire research study. We drilled repeatedly beforehand. Amanda was well-prepared, and I’m proud to say that — although nervous — she did an excellent job.

The challenging part followed. Valid and fair questions were asked, exposing some of the

findings’ vulnerabilities, which all studies possess. I let Amanda field them, although at two points she was backed into intellectual corners. Both times I quickly stepped in and cited sources, referenced aspects of our data, and reasoned our way back to the conclusions we made in the paper. Amanda gave me a quick wink and smirk as if to convey, “If you leave me alone right now, then I will die a thousand deaths!”

In the end, conference participants were quite pleased with our work. Their suggestions were taken under advisement as we revised the document. Within a year, the paper was published in a peer-reviewed journal.

As we flew back to Cedarville, Amanda excitedly shared that the conference was a highlight of her CU academic experience. Her simple words, “Thank you, Dr. Firmin; I couldn’t have come this far without you,” made the entire experience worth it to me. We presented a second paper about six months or so later, and today Amanda is a Ph.D. student at Wayne State University. She related that her research experience was a salient factor in her selection as a graduate assistant, which will enable Amanda to graduate debt-free from grad school.

Amanda’s experience is typical of Cedarville psychology majors who present at national research conferences. At Cedarville, research mentorship in psychology is a key focus.

Cedarville is a teaching institution. Unlike research universities with their publish-or-perish mindsets, CU emphasizes classroom instruction and quality connections with students. Within



the last decade in particular, however, teaching institutions nationally have undergone a change in genre. While the volume of research will never be expected to match those of their research-university counterparts, teaching colleges are generating more research than they have in the history of higher education.

The reason for the change is student-driven. Graduate schools are increasingly expecting students to have conducted research as a criterion for admission. This is particularly true for highly ranked institutions and almost all doctoral programs.

A few years ago, for example, the Cedarville department of psychology had five students and recent alumni accepted into psychology doctoral programs, and three were admitted to law schools. In addition, half of the graduating psychology seniors entered graduate school that year.

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In short, the *zeitgeist* — or current academic climate — requires that Cedarville give attention to research and publication, but not merely for the faculty's sakes. We have our Ph.D.s. Rather, we want Cedarville students to possess utmost preparation for their future professional careers. Faculty members here work hard to see students fulfill their potentials — and someday go beyond us on multiple levels.

There are four benefits to Cedarville students engaging in undergraduate research. One is that it develops critical thinking skills. Placing one's idea in the world of professional peer-review sharpens analytical thinking. Being forced to defend one's conclusions and reanalyze data from multiple perspectives helps to move students to entirely new levels of intellectual excellence.

Second, engaging in undergraduate research helps students answer important life questions. Some issues are best addressed biblically or philosophically. Other questions, however, can only be answered empirically. This involves rolling up our sleeves and engaging in the research process.

Third, undergraduate students need to build their *curriculum vitae*. Having conference presentations or journal publications often are the demarcators for admission to competitive graduate programs.

A final benefit of Cedarville students engaging in research activity is paradoxical. Namely, it boosts their confidence, yet builds in them a profound sense of humility. Confidence is boosted

as students see their hard work pay off with a paper successfully presented and/or in journal print. At the same time, however, they walk away from such experiences with a much clearer comprehension of just how much they don't know.

In 16 years of working with college students, I have yet to have any students — even exceptionally bright ones — show capability in writing a professional journal article. Likewise, they do not possess the ability to take a paper to a conference by themselves. To experience that level, it requires hours — many, many hours — of mentorship from faculty. Designing and executing an internally valid research study, analyzing the data, applying statistics aptly, and then writing a quality paper involves faculty assistance at each level.

Teaching-institution faculty, like us at Cedarville, do more than just teach in the classroom. We also teach students individually. In this context, we teach via research mentorship.

This may best be said in the words of Amanda: "One of the cool things about Cedarville is that professors help us get from where we are to where we need to be. I hope someday I can have my turn to do that, too." And that's what the Cedarville experience is about. **T**

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Amanda's participation at AAER was made possible by generous donors. Without the financial support of friends like these, many students would be unable to attend these stretching psychology events. The Jane Adams Smith Memorial Scholarship has been established to partly defray the attendance costs of Cedarville psychology students who present at national conferences. Beginning in Fall 2005, contributions may be made through the Cedarville University Gift Planning Office. Call 1-800-766-1115 or e-mail giftplanning@cedarville.edu for more information.



Dr. Michael W. Firmin, professor of psychology and chair of the department, joined Cedarville University in 1998. Previously, he spent 10 years on the faculty at Baptist Bible College in Clarks Summit, Pa., where he was director of graduate studies. Firmin holds three master's degrees and two Ph.D.s and has served his community in the roles of pastor, conference speaker, professional counselor, and licensed psychologist. He has done more than 50 national conference presentations and publications. When not spending time with his wife, Karen, and daughters, Ruthie and Sarah, Firmin enjoys tooling around in his MG-B.