

Undergraduate Research Forum 2007 Luncheon Student Speakers

Miami University Shriver Center April 18, 2007

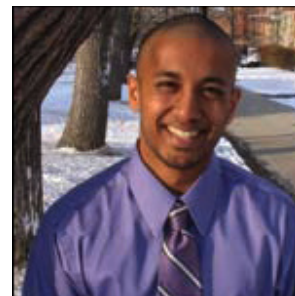
Christopher R. Good ***Senior English Literature and Economics Major***

Christopher Good is a senior majoring in Economics and English: Literature. He has been involved in research since his sophomore year, when he gave his first Conference paper *Lost in Translation: Confused Men in the Literature of Haruki Murakami* at the University of Virginia's Graduate Conference through Miami's DUOS program. He studied his Sophomore Summer at the University of Michigan's Center for Japanese Studies, doing research through a CAS Roschman fund grant, which led to the publication of an article *Hirabashi Taiko* through the University of Texas and a paper presentation *Breaking Boundaries in Gender and Popular Culture: the Literary Exchange of Raymond Carver and Haruki Murakami* at the Popular Culture/American Culture Association Regional Conference. Outside the classroom, Chris rows on the Crew Team and is an Undergraduate Associate. He is a winner of the President's Distinguished Service Award, and is a College of Arts and Science Dean's Scholar. After graduation, Christopher will work as a Banking Analyst for PNC Bank and study part time at the University of Pennsylvania for his Masters in Literature.



Jacob Madhu Mathew ***Junior Zoology Major***

My name is Jacob Mathew, a junior zoology major conducting research in Chemistry Education with Dr. Stacey Lowery Bretz and Nathaniel Grove. Upon joining the Bretz group in the fall of 2005, I began work on the CHEMX project, bringing to it my expertise in computer programming and website and graphic design. The goal of this initial collaboration was an online survey database that utilized current programming technologies to provide real-time results to professors using the CHEMX survey. I first presented the database this past spring at the national meeting of the American Chemical Society in Atlanta, GA. Since that time, I have also presented this research at the Biennial Conference on Chemical Education at Purdue University and will again be traveling in March to the national ACS meeting in Chicago where I will present the latest research developments. In addition to CHEMX, I am currently working on a self-designed project titled the Teaching Assistant Assessment Program (TAAP). This assessment tool, designed for use in chemistry labs, allows students to provide feedback to their TA's about their lab experiences. The project utilizes technology I developed that analyzes data within seconds and performs various statistical analyses. After graduation, I plan to integrate my knowledge of computers into the field of surgery as I aspire to become an Orthopedic Surgeon with a specialty in Sports Medicine. My dream is to create computer programs that will assist doctors with surgery and a website that will facilitate communication among doctors from around the world.



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We invite you to reflect on the heartfelt thoughts of our students speakers Jacob Mathew and Chris Good. Their remarks demonstrate the innate ability each of them has developed to clearly articulate the importance of undergraduate research experiences to student learning.

The Mentoring Relationship by Jacob Madhu Mathew

I'm excited to have the chance to share with you the experiences that have formed the relationship I have with my research advisor, Dr. Stacey Lowery Bretz. No matter where you find yourself in your research career: whether you are conducting research for the first time with your advisor, or you're a veteran with months or years of experience, I hope you all will gain from my words of insight. In my personal experience with Stacey, I have found that there are 3 principles that must be mastered in order to have a strong relationship foundation: **communication, respect, and collaboration**. I like to think of these 3 principles as each representing a different leg to a stool, with the stool being your relationship with your advisor. Thus, the absence of any would create a shaky, and unfavorable experience. As I proceed to explain each, I hope you will understand the importance each plays in the formation of your relationship with your advisor, and will aid you in your research career's at Miami University.

I will begin with the first leg: **communication**. I think of communication as the lifeblood of the information age. We are lucky to be living in the 21st century where we find various forms at our disposal: email, video conferences, chat, texting (which unfortunately can lead to very high telephone bills!), and various others. However, while many types exist, it is critical that **you find which will work best for your group**. The only way one can

do this is through experimentation. I encourage you to sit with your advisor, look over each others daily and weekly schedules, and find which form will be the most feasible. For Stacey and I, we find each others lives to be equally busy; I am never at one place for long periods of time, unless it's the library, while she has classes to teach, conferences to attend, etc. Thus, we concluded that email would be the best option for daily communication. However, I cannot stress enough how important it is to retain one-on-one contact with your advisor, as it is the most important form of communication in maintaining a strong relationship. Thus, Stacey has devised a method to carry this out which we have been using for two years: biweekly meetings. First, our group participates in meetings that occur once every two weeks. At these meetings, we are able to talk with other group members about our current developments and also offer words of insight when applicable. On those weeks we do not meet, we have personal meetings with Stacey which allows us to go more in-depth with our current research project and often get help that would require too much time at the group meeting. I encourage you and your advisor to enact a similar system, especially if you find yourself in a large research group, as a way to engage communication with both other group members, and your advisor personally.

The second leg represents **respect**. In the world of academia, respect is a very important concept, especially

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The Mentoring Relationship by Jacob Madhu Mathew

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when one finds themselves conducting work with a well known individual in the world of chemistry, such as Stacey. As such, there are two forms of respect I have found that I have experienced that can help you with your personal relationship. First, I respect Stacey's schedule. I understand how busy she is with not only research, but the classes she teaches, and the family she attends to every night. Thus, it is important for me to be understanding of this and realize that meetings may have to be cancelled. Since they occur only once every two weeks, this can be a critical loss to the progress of my research, however Stacey always does her best to reschedule our meetings, as I am sure your advisor will if a similar situation arises. In our relationship, we often reschedule for a time later in the week or double the normal time met for the next meeting if another meeting time cannot be found. Thus, the critical point is to learn to adjust to each others schedules. I've also learned to respect Stacey's identity in the chemistry community. It seems as though at least 1 out of every 3 chemists know Stacey by name, and as such, one can imagine how hard it can be to go places during a conference and not be stopped by someone who knows her! Thus, it is important that you understand that you are representing not only the university, but your advisor, when you attend conferences or poster sessions such as this. After my first conference, I realized this fact and have understood that my demeanor at such events reflects both her and Miami University. While there are many ways in which I respect Stacey, there are times that it is hard to, namely, during the NFL season. Stacey's favorite team unfortunately is the Pittsburgh Steelers,

while I find pride in the Cleveland Browns (obviously the better of the two). Thus, going back to ones respect of schedule, I am able to reschedule meetings that were originally planned for Monday if the Steelers lose to the Browns the previous Sunday afternoon, and Stacey does not want to handle to harsh reality face to face.

The last leg of the research stool is **collaboration**. Personally, I use to be a very independent person; which stemmed from my history in middle school and high school where I found myself creating websites. While many companies find websites to be a group venture, but I made them an independent project, doing all aspects myself. This mentality later carried on to group projects, where I found it difficult to work with other classmates because not only was I not accustomed to the idea, but I found it difficult to trust others with the fate of my grade. Now, research has provided me the opportunity to work on this and now, I find it helpful to work in a group atmosphere. This is because I have learned to respect the individuals I work with (and the projects they are conducting), found different paths of communication to take part in, and trust them, and their insight, with my own projects as they do with mine.

In conclusion, I have talked about 3 main legs to a successful research relationship: **communication, respect, and collaboration**. I encourage you to sit with your advisor and experiment ways that you may be able to strengthen each of these areas. I am confident that if you put the time and effort into these principles, your research experience with your advisor at Miami University will be as memorable as I have found mine to be.

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Why Research Matters: Building Connections with Learners
by Christopher R. Good

I know that the best way to give a good eight-minute speech is to speak for 6 minutes, and I plan on doing exactly that. But I did want to take some time to share with you some of my experiences with undergraduate research.

Last night, I'm sure, like everyone else, I stayed up until 4:00 working on my presentation and paper. Granted, I'm a terrible procrastinator, and I put everything off until the last minute, but this past week has been pretty bad. So last night, when I was trying to figure out what to say at the oral presentations this morning, I had a conversation with my housemates that I'm sure many other people here have had. And that is why I spend my free time designing courses I don't "need" to graduate. Often times, I'm asked why I bother with Undergraduate Research. Looking around at the posters downstairs, and hearing the oral presentations, and thinking of the thousands of collective hours of not sleeping that went into producing the work that we're here to share right now, I want explain one reason why we might participate in research.

What I think is important about research is that it allows you to make a connection with others. It allows you to make a personal connection, it allows you to make a connection with an intellectual community, and it allows you to connect to the greater community of which you're a part.

I think that perhaps the best way to address this is to share with you three brief stories about my own research experience

Of course, the first type of connection that I'm

describing is the personal connection, and I think that we see this best with our research advisors and mentors. Spending time in professors office hours, meeting for seminar discussions, and perfecting research presentations brings you closer to the people you're working with. I think we can all say that we get more out of working individually with faculty that we do out of attending a large lecture class. But I also think that you can reach a point with your mentor where you stop seeing them as faculty and start seeing them as friend. And that point is one of the best parts of research.

I can give an example of this. I was nervous about attending my first research conference- and my then advisor, Peggy Davis, gave me a package before I went on my trip. And it was a note saying you'll do a great job, and some cookies. I bring this up for two reasons. First, I'd like it if my current advisors baked me cookies for our meeting Thursday, chocolate chip is fine. And that's one time when I really felt a personal connection with a faculty member.

The second point I wanted to make is how research connects you to a larger community of researchers

My sophomore year, I was fortunate enough to receive a research grant to work on the literature of a Japanese Postmodern Author, Haurki Murkami- I remember how excited I was when I found that I'd received a funding and to go for a conference for my project. So I arrived on campus and went to the classroom where my panel was meeting and got ready to read my paper on this Japanese Postmodern Author. And I was about ready to read my paper when I looked at the other panelists papers and

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realized that I in a panel of Medieval and Early Modern scholars, and their papers were on topics like Crossing Borders: Matthew Paris's 13th-Century Legend of the Wandering Jew, Spenser's *Faerie Queen* and the Temptations of Representation, and Look not towards them!': Jonson's *Bartholomew Fair*, Free Market Spatiality, and Early Modern Anxieties Regarding Containment & Transgression

Needless to say, I had my own anxieties about reading my paper right then.

That was probably about the dumbest mistake you could make, but the great thing about the experience was that, even though I was completely out of my league and in the wrong room, the other panelists and the audience made the experience worthwhile. We had a genuine discussion in which they asked interested and informed questions and helped me to realize different directions in which my research could go.

And I realized after I was finished with the conference, that what I had researched, and what I had explained to the people at the conference, was more than a series of analytics about a Japanese postmodern author. In the act of researching and presenting my work to an audience, I had explained something about myself- and I had learned something about the type of person that I was as well. And this is another point about connection I'd like to make. It seems that what we are researching is not just the material, but we are researching ourselves. For many people the topic that they study is a matter of personal interest, even passion. And as you look and listen to the research presented today, perhaps you can ask why this topic is of personal interest to the presenter-

this is perhaps just as important as the research that is being presented. And this will connect you to a larger intellectual community.

There is, however, a practical side to passion. And, of course, as a graduating senior, translating this experience into a marketable set of skills that would bring employment in the financial services seemed quite a different matter. It's one thing to travel to a conference to speak about how a postmodern Japanese author addresses gender issues; it's another to try to explain to a potential employer how your knowledge of postmodern literature will help them make a profit. I was scared entering my first job interview, because I knew that the firm was one that asked difficult questions..

How many Christmas Trees are sold in the United States each year?

What is the market size for disposable diapers in China?

How would you estimate the weight of the Empire State Building?

How many pingpong balls can you fit in the back of a New York Taxi Cab?

I can honestly say that no amount of research in the humanities helped to prepare me for those types of questions. Research is about doing sustained work, with sustained and creative questioning, for a long period of time, and being thorough about what you're doing. It doesn't necessarily come into play for on the spot thinking with impossible questions for which no answer exists. And while I did a good job of justifying the number of Christmas trees, Ping Pong balls, and

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diapers, after I'd passed through the gauntlet of difficult questions, the interviewers began to talk about what they were really interested in. And that was, quite simply, in finding people who knew how to ask questions and find out answers. And I can tell you, with all honesty, that the rest of the interview had nothing to do with finance, economics, accounting, or real estate- it had everything to do with me speaking about the questions I'd asked about Japanese literature, the methods I'd used in exploring Postcolonialism, and the answers I'd come to through the process.

This example is important because it shows how the rest of the world values research. I think that this story is applicable because too often, as students, we are concerned with the end result of our four years in college. We're worried with making the grades, choosing the right major, getting the high paying job or entering the prestigious graduate school. We are too pedantic in our studies, too focused on perfection, and, in focusing on answering other's questions, sometimes we forget to ask our own.

And that is the one observation that I would care to pass on to students who are in research, and I'd encourage you to pass it along to your friends who might never take advantage of what undergraduate research at Miami has to offer. There's not just a need in liberal education for people who are interested problem solvers- there is a genuine market demand for those people. And this applies whether you're interested in exploring comparative literature or the human genome, whether you're in the arts, the humanities, the sciences, education, engineering,

or business. Undergraduate Research at Miami is about more than just making the grade or meeting the Miami Plan requirements- its about taking on, with the help of outstanding faculty, your own problems and coming up with your own solutions. I'm thankful for the time I've spent doing undergrad research here in my four year, and thank you for your time here today.