



**Department of Mathematical Sciences Newsletter**  
**Fall 2001**

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**A Student Teacher's Perspective-Interview with Jenny Hellman**

**Describe your initial experiences student teaching.**

My initial experiences student teaching was just observations. It seemed like forever but was only 2 weeks. After that time, I was ready to take over. In the beginning, I didn't think I would ever be ready to start teaching, but it amazed me at how much I wanted to be in the front of the room controlling what went on.

I had not reflected much on the duties of a teacher outside the classroom, and was not mentally prepared for cafeteria duty. No matter how I dressed, I tended to blend in with the students and this duty was tough. My term overseeing the cafeteria was over after a month. I felt relieved and more focused after this activity was over. I hadn't expected one fifty-minute session to make such a heavy impact on my day.

**How did your mentor factor into your teaching?**

I had two coops that had different teaching styles. Although they both encouraged me to be my own person, they also advised me using their specific teaching styles. Sometimes I felt I had to be two different teachers.

Both coops encouraged me and supported me on a daily basis. If I had any questions, they'd both offer a few answers so I could choose the best for myself. However, many times I felt an obligation to follow through with suggestions, even though I did not feel comfortable with the idea.

My Montclair State University mentors helped me with the situations I faced, and gave me practical tips for managing the classroom or methods to involve students in the classroom. Overall, I would have to say that it was my coops that shaped my teaching much more than my MSU mentors just because I did not feel I had complete freedom to do what I wanted in the

classrooms but had to follow in the footsteps of the coops.

**What impact and feedback did your observations from mentors provide?**

My first observation didn't go as well as I would have liked, although my mentor said it went well! The students were wild. I think it was Friday before their first football game and this class was their last period.

My last observation had even more difficult external factors; the power was out in the hallway and the second bulb on the overhead blew out (and my lesson was entirely on transparencies). I had to use the chalkboard to transfer a multi-colored lesson into black and white while flashlights and shouting were going around in the hallway. I don't think it can get much worse than that, and I survived.

I did prepare somewhat differently for observations. I planned the whole week's worth of activities in such a way that there would be exciting things happening when I was observed. I was well aware that I could not meet every requirement in just one lesson, but the activities were more thought out in advance and planned for, almost rehearsed. Even though I knew I had no reason to be nervous, I still would be. All those 'what if's' come into your head.... But I got through. We all do.

I loved the feedback from the observations, not only because I received it after the whole thing was done and over with, but because I knew it would either help me or give me a pat on the back.

I had one mentor from MSU who didn't fill out the forms but wrote a little paper on what I did in class, how it worked out and how I rated using the form as a guide. This paper was extremely helpful.

**Are there any other comments based on your experiences that would aid students who are about to begin student teaching?**

I'd say just go with it and do your best. It might get hard, and you might step on people's toes, but if there is nothing you can do about it, then just brush it off your shoulders and keep moving on.

I'd assume teaching is a favorite thing, so have fun during student teaching. You think you will never be prepared enough, and you may only be one day ahead of the students, but that is what teaching is all about.

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## **A Mentor's Perspective on Student Teaching** by Anthony Piccolino

Student teaching is truly an intense experience. Regardless of the number of teacher preparation courses one might have, few student teachers find themselves ready to deal with the myriad of challenges that befall them when they face real live students in the classroom each day. Nevertheless, student teachers can help themselves to make the transition to the classroom smoother by following a few simple suggestions.

First, get to know about your students as quickly as possible. This does not mean just learning their names, but rather discerning what are their strengths, weaknesses, interests, concerns, disabilities, and non-academic factors which influence not only their performance in class, but contribute to their attitudes, mindsets, and dispositions toward mathematics and school in general. Always remember that your primary focus in the classroom is your students and then your subject matter. It is quite common to see the focus in secondary school classes to be on the content, whatever that may be. This is especially difficult for beginning teachers who are often recent graduates coming out of a strong preparation in their subject discipline and are focused on the subject matter.

Secondly, when preparing lesson plans, especially those for which you will be observed, do not feel that you must include in the plan every possible strategy, technique, or principle of learning that you may have discussed in your teacher preparation courses. Often, student teachers feel that their lesson plan must include a

cooperative learning activity, a focus on technology, use of manipulatives, incorporation of alternative assessment practices, real-world applications, etc. Indeed, each of these elements is desirable in classroom practice, but it is a rare lesson which incorporates all of them together in one instructional plan.

Third, get to know the culture of the school in which you are student teaching. The intermediate field experience is designed to help student teachers address this issue. For the time that you are student teaching, you are an integral part of the faculty of that school and each building has its own unique characteristics, practices, and culture. Your students and colleagues, as well as you, are part of that culture. This underscores the idea that teaching is much more than imparting content knowledge to five classes each day ( or three classes during your student teaching).

Fourth, be creative. Don't be afraid to take risks or to make mistakes. Effective teachers are creative, they are risk-takers, and they are not afraid to make mistakes because they know that these represent opportunities for them to learn from their mistakes.

Finally, remember that teachers, including student teachers, are role models. Your values, attitudes, and dispositions have a profound effect on your students. Set high expectations for both yourself and for your students. Good luck!

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## **Upcoming Events and Important Dates**

- Majors and Faculty Holiday Party: December 13, 4-6 pm.

- Joint Mathematics Meetings, San Diego, CA, January 6-9, 2002
- Sectional MAA-NJ Spring Meeting is at Monmouth University on Saturday, April 13, 2002.
- Last Day of Classes: December 14
- Final Exams: December 17-21

## Student Events and Opportunities

- Majors, come meet the faculty at the Holiday Party on December 13, from 4-6 pm in RI-232.
- If you are considering going to graduate school next fall, please consider attending a Research Experience for Undergraduates or similar program during the summer. Some programs, such as the EDGE program at Bryn Mawr College, are specifically designed to help entering graduate students succeed.
- Do you have an email account to contact your professor? All current MSU students are eligible for a Mail.Montclair account. This email account can be accessed through a web browser from any computer with an Internet connection. See <http://www.montclair.edu/> for details.

## Student Achievements

**Our students have been highly active in the past year. This is a summary of a few of their outstanding achievements.**

“General Flip-Shift Games” by **Jae Gyun Cheong**, **Michael A. Jones**, and **Kei Kaneko** will appear in the Fall issue of the Pi Mu Epsilon Journal. Jae and Kei are MSU undergraduate math majors.

**Professor Eileen Fernandez** reported that she and her students have had an article accepted for publication in the journal PRIMUS (Problems, Resources and Issues in Undergraduate Mathematics Studies). It is “Experimenting With Classroom Formats to Encourage Problem Solving,” by Eileen Fernandez, **Jessica Kazimir**, **Lynn Vandemeulebroeke**, and **Carlos Burgos**. This article describes how modifying familiar teaching formats in our Math 350 College Geometry class helped to encourage student problem solving. These modified formats, which resemble the problem solving settings of mathematicians, are described in the context of

problems we explored in the class. The hope is that the paper encourages others to consider experimenting with classroom formats as a resource for encouraging student problem solving.

**Kerry Nolan**, an entering MS mathematics student completed the Philadelphia marathon.

**Lynn Vandemeulebroeke** and **Professor Diana Thomas** coauthored the paper “A Mathematical Evolution Model for Phytoremediation of Metals”. The paper has been submitted to the international journal, Ecological Modeling. Lynn will be competing in the Undergraduate Research Poster Competition at the Joint Meeting of the AMS and MAA in San Diego, CA this January. If you are attending the meeting, please stop by and give her your support!

## Faculty Activities

**Not to be outdone by the students, the faculty have been keeping busy also.**

**Professor Thomas F. Devlin** was presented with a distinguished service award by the American Statistical Association. The award, one of only fourteen, was presented at the 2001 Joint Statistical Meetings. It honors Dr. Devlin for excellence in the teaching of statistics,

leadership associated with the founding of the New Jersey Chapter of ASA and for continued contributions to the Program and Symposium committees. **Professor Devlin** also gave an invited presentation at the Joint Statistical Meetings this summer, "Amstat Online: ASA

goes Digital". In addition, **Professor Devlin** is an Associate Editor of Amstat Online, an American Statistical Association publication. **Professor Devlin** also chaired the keynote session at the New Jersey American Statistical Association Summer Symposium on "International Harmonization for New Drug Applications." Earlier in the summer, he was an invited participant in the Harvard School of Public Health/Schering-Plough Research Conference on "Data Mining with Applications to Genomics, Clinical Trials and Post-Marketing Drug Risk."

In October, **Professor Michael A. Jones** presented on general flip-shift games at Sarah Lawrence College in Bronxville, NY as part of their Science Seminar Series. In November, **Professor Jones** also presented on general flip-shift games at Dover High School as part of the Dean's Visiting Professor Program.

In the last issue, we reported that **Professor Pat Kenschaft** hosts Math Medley at 11:00 am on Saturdays. We want to mention that dozens of her past radio shows can be heard any time at <http://www.webct.com/math>. Click on Math Medley near the center of the screen.

**Professor Diana M. Thomas** gave an invited presentation on the mathematical evolution of the West Nile Virus to Saint Peter's College in March.

Congratulations to **Professor Gideon Weinstein** and Lisa D'Adamo-Weinstein, who have just adopted a son, AJ from Cambodia. A picture of him at three months can be viewed on their website, <http://home.hvc.rr.com/dadamoweinstein>

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## New Faculty Profiles

**We have three new faculty members in our department. We welcome you to the University!**

### **Professor Lora Billings**

Professor Billings joins us from a Postdoc at the U.S. Naval Research Laboratory. Prior to that, she was an assistant professor at the University of Delaware. She received her Ph.D. and M.S. in Applied Mathematics from the University of Colorado. Her research interests are in deterministic and stochastic dynamical systems, theory and applications of chaos, differential equations, and mathematical biology.

### **Professor Karen Ivy**

Professor Ivy completed her Ph.D. in Educational Leadership with a concentration in Mathematics Education from the University of Mississippi. She received her M.S. and B.A. in Mathematics from the University of Mississippi as well. Her current research interests are on the effect of using computational software and computer simulations in teaching probability, implementation of curriculum changes which are

specifically adapted to computer usage in elementary statistics, and detailing pertinent information about students' understanding of probability.

### **Professor Gideon Weinstein**

Professor Weinstein joins us from the U.S. Military Academy where he was an Assistant Professor in the Dept. of Mathematical Sciences. He has also served on the faculty of American University, where he was deeply involved in modernizing and improving the doctoral program in mathematics education and served on several dissertation committees. He received his Ph.D. from Indiana University and his research interests are in investigating intellectual development in mathematics. Professor Weinstein has also studied and taught Martial Arts for almost a dozen years. Information on his Martial Arts career can be found at <http://www.trymcma.com/3rddan.htm>.

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