Know Your Wisconsin Mathematician

Interview with Professor John Koker, UW-Oshkosh, by Kenneth Price.

Where did you grow up?

Kenosha, WI

Was there a time in your life when you discovered that mathematics was what you wanted to do?

While in high school, I remember noticing number patterns that I found interesting (such as the sum of the first n odds is n^2). When I went to college, I enjoyed taking math classes so I took as many as I could. Before I knew it I was in graduate school and became a mathematician.

Where did you go to undergraduate school and graduate school?

I got my B.A. from St. Norbert College, my M.S. from Purdue University, and my Ph.D. from the University of Wisconsin Milwaukee.

What was the influence of your family on your education?

I was the youngest of four children, and the first one in my family to go on to college. I was always supported by my family as I continued on through school. Although, I do remember a time that my Dad asked me (being a little annoyed I was in school so long), "How much math is there?"

Are there any teachers who had influenced you to become a mathematician?

Certainly the department members at St. Norbert including Rick Poss, David Pankratz, Larry Thorsen, Gene Deboth, Kathy Muhs, Bonnie Berkin and John Frohliger.

How did you end up at UW Oshkosh?

I was teaching at SUNY - Potsdam College in Potsdam, NY. While I was happy there, we missed Wisconsin. One year I sent applications to Wisconsin schools that had openings and was offered the job. Oshkosh has a great faculty. I made the right choice to come to UW Oshkosh.

How has your position as a college dean affected your career in mathematics?

While I have been trying to teach regularly, my research and professional work in mathematics has suffered. My wife recently told me she doesn't notice many junk mail envelopes filled with my scribbling lying around anymore.

How were you involved with the MAA over the years?

I regularly attended meetings and then directed the WI – MAA High School Math Contest for many years. I did a term as chair and one as governor of the WI Section.

What courses do you like to teach?

I can't think of a math course I haven't liked teaching. Specifically, I like teaching the general education math course for non-math/science related majors (Problem Based Inquiry Seminar) and the mathematics courses for future elementary and middle school teachers. For majors, I enjoy Number Theory, Abstract Algebra, Linear Algebra and our capstone course on problem solving. I enjoy teaching the courses in our graduate program too.

Students have been a big part of your career. Can you please talk about what students have meant to you as a teacher and mathematician?

Without students, there is no need for teachers. I really enjoy the student/teacher relationship – especially if I am successful with someone who claimed to be anti-math. I always tell my students that I will learn something new along with them (it may be something different) as they struggle and work to learn something new. That has had a great effect on my growth as a mathematician.

You have done a lot of acting on stage. Do your interests in mathematics and theater interconnect?

Sometimes directly, as I once played the aging mathematician in Proof. Always indirectly, as I see these both as creative activities. You have to create an idea or moment and then communicate what you have discovered.

What do you think is the best part of being a mathematician?

I don't need any expensive equipment. Do I sound like a dean?

Over the years, did you find that teaching of mathematics changed?

I think I have changed as a teacher. I now see more myself more as a reflective practitioner. I have learned to approach teaching as a problem – one that I will never fully solve. But, as I work on this problem, I will become a better teacher.

What was the worst part of teaching mathematics?

When I didn't get students involved. I now wonder. Why did I ever think students would want to come and watch me do math for an hour?

How would you describe what you did when you were talking to somebody outside of mathematics?

I usually talk about patterns and categories. We like to predict, sort and classify things. I try to give a few simple examples.

What is your advice to college students and new teachers?

Students – go to class and get involved. Teachers – make students want to come to class and get them involved.