I am really looking forward to this lecture. As a mathematics professor who has taught for a number of years now as well as a software engineer with 20 years of experience the topic really fits with current and previous career paths.

Dr. Schafer starts out with a question to the audience to motivate his talk, “Who was your favorite teacher?” This brief introduction ends with the premise that his presentation is based on “What he learned about education by watching some of his favorite teachers.” (presentation) It seems his presentation outline is simply based on each of five teachers from his past.

The first teacher is Mrs. Wendy Zimmerman, who was Dr. Schafer’s first grade teacher. The lesson learned from Mrs. Zimmerman is that your student’s are human beings. They all have their own individual feelings, interests, passions, needs, etc. As an educator it is important to make students feel welcomed and that they belong as well as understand that each student is unique. The research backs this. If a student feels like they belong there is a greater chance of student success. In addition, those students who chose projects and projects which were of importance to them perform better in the classroom.

The second teacher, Mr. Judd Freeman, was Dr. Schafer’s 7th grade math teacher. The lesson learned here is that learning and teaching should be fun. As an educator it is good to use humor, show passion for your subject, and to make learning a game. It is also ok for an educator to show your humanity. The research shows that using humor helps students learn due to strong positive emotions and that the chemicals released in your brain facilitate the learning process.

The third teacher, Dr. Roy Unruh, was our speaker’s physics professor at the University of Northern Iowa. This teacher passed on the wisdom that “not all students learn by being told.” (presentation) I was happy to hear that Dr. Schafer thinks that lecturing can be appropriate in certain situations such as the lecturer has specific knowledge about the subject in question. It is important to know that lectures can be exhausting for students as well as teaching the students that they should rely on the teacher for their information. There is also no means of assessment if all the educator does is lecture. Dr. Shafer shows some interesting teaching techniques which I have already learned in some of my graduate level coursework. These techniques, peer-instruction, flipped classrooms, and pogil, are all backed by research.

The fourth teacher is Dr. Philip East. Although never having him as a professor in a classroom Dr. East became a mentor for our speaker. The lesson here is to always ask the question, “Why?”. The real underlying question is, you have to understand the outcomes of what you are trying to teach. This is a pertinent question for both daily lecture planning as well as what the overall objectives of your class is. What you should be asking yourself as an educator is what do you want the students to learn (what the results should be), followed by what is the evidence of the learning (assessment), and finally to plan the learning experience. Of course this is backed by research evidence. (see Understanding by Design by Bowen 2017)

The last teacher is Dr. John Schafer, the speaker’s father. He was a 35 year professor at Iowa university. Dr. Schafer followed the mantra, “The best learning takes place on a log with the teacher on one end and the student on the other.” (Socrates) i.e. The student and teacher get to know each other. Also, Dr. Schafer had a really interesting grading system where quizzes are there to assess that learning is starting to take place. Grading should be accurate. An A grade should represent an A grade and not because the student did lots of extra credit. (I **completely** agree with this!) Some of what our speaker said I might agree with but I have a hard time seeing how I would do this in practice when I am teaching large lecture class sizes of about 80 students. (Note to self: Read Grading for Equity)

The last lesson from our speaker, good teaching is hard. As a mathematics instructor I completely agree. I am planning on applying for the CSci PhD program for next fall. My goal is not to get a PhD to be a researcher but to get a PhD so that I can teach data science and computer science classes with the bona fide credentials at a four year university.