



TEACHING PORTFOLIO

Spring 2016

Laurel Powell
Lpowel28@uncc.edu

Contents

INTRODUCTION.....	2
TEACHING PHILOSOPHY.....	2
NEW DEVELOPMENTS IN TEACHING.....	3
TEACHING RESPONSIBILITIES.....	3
PRESENTATIONS.....	3
Fall 2014.....	3
Spring 2015.....	4
Fall 2015.....	4
Spring 2016.....	5
MASTER TEACHER LECTURES.....	5
Fall 2014.....	5
Spring 2015.....	5
GRADUATE PROFESSIONAL DEVELOPMENT SEMINARS.....	6
Fall 2014.....	6
CENTER FOR TEACHING AND LEARNING PROGRAMS.....	6
Fall 2014.....	6
Spring 2015.....	7
Fall 2015.....	7
COMPUTING LEADERSHIP SERVICE.....	7
Fall 2014 and Spring 2015.....	7
Fall 2015 and Spring 2016.....	8
REFLECTIVE SUMMARY.....	8

INTRODUCTION

The purpose of this portfolio is to reflect on my teaching experiences so far and to discuss the activities that I plan to undertake in the future. This is a comprehensive portfolio as I am early in my teaching career and I want to highlight my teaching related experiences outside of standard classroom teaching. I am in the final weeks of my first semester of classroom teaching, and I will use this portfolio to reflect on that experience. Outside of this semester, most of my teaching experience comes from a combination of my experiences as a teaching assistant and the activities I have completed as part of the GAANN program. Under the GAANN program, as a service project I taught a small group of middle and high school students about the basics of computing literacy. This small class used a plan I created myself. I have served as a teaching assistant for two classes, and may serve in a similar capacity in future years. Additionally, under the GAANN program I have attended multiple teaching seminars, workshops and master teacher lectures. I believe that all of these experiences have helped me gain a perspective on teaching that I would like to share in this portfolio.

TEACHING PHILOSOPHY

As a teacher, my philosophy centers on student engagement, and instructor transparency. I have very limited experience as a classroom teacher, but I have had opportunities to see the importance of these goals both as a student and as a teacher.

Through my time as a student and my experiences through the GAANN program, I have seen many examples of the importance of student engagement and interaction. While teaching, I have attempted to integrate as much in class work as possible, and stress activities over memorization. Whenever possible, I have students do their reading outside of the classroom and dedicate class time to more active work. Ideally, I like to set up my class with a task in small groups of about 3 students, and let them work together. Then I circulate the room, helping students as they need it. I believe that this is vital for understanding and for forming connections with individual students. Talking to the individual student groups and helping them with specific parts of the project is important to helping them gain a larger conceptual understanding. In many cases, helping them work through examples on their own is far better than only showing how to do the tasks. One other example of how I am attempting to put my philosophy into practice appears in my work as a teaching assistant. One course that I assisted with is structured around a central team project. One important part of my role as a TA was to provide students with help and advice on their designs. There are incorrect designs that do not fulfill the requirements set up in the prompt, but there is no single correct design. One of the most interesting challenges for me is learning how to critique a design without simply telling them what to do. When I have observed Master Teacher Lectures, such as Dr. Latulipe's flipped classroom, I have watched them discuss student work. They did point out problems, but it was easy to see that they were not just telling students the issues but trying to guide them into coming to the correct conclusions themselves. I believe that it is critical that students take an active role and see for themselves what is correct rather than simply accepting instruction.

The second key idea in my teaching philosophy centers on helping students tie an individual lecture into a larger understanding of the subject as a whole. I believe that it is important to be transparent with the class and allow them to see why the course is being taught in a specific way and why certain content is being taught at all. Students are far more likely to remain interested in a subject if they can see why learning about the topic will aid them in some way. When possible, I try to integrate the abstract concepts into more practical applications. One of my best examples of how a student connected what he was learning in class to his real goals appeared in my teaching leadership service project. For this portion of the project, I was teaching the students the basics of how to use a vector illustration

software. I had many reasons for including this element in my plan, because it is a good way to show how technology can be used creatively and can be used in many projects. One of my students later explained to me how learning to use this software now, would be extremely useful to him in the future. He was taking courses in an engineering discipline, and was using the software for his work. This experience helped lead me to my belief in the importance of helping students understand the relevance of what they are learning.

NEW DEVELOPMENTS IN TEACHING

I am very interested in exploring the use of new technologies and learning methods in modern teaching. In particular, I am interested in the role that the use of tools such as video lectures, virtual teams or social media play in education. My decision to explore adding virtual appointments was encouraged and shaped by the discussions on virtual teams that have occurred in the graduate teaching seminar. I also hope to explore the use of social media in education such as Twitter. I attended a workshop led by the UNCC Center for Teaching and Learning that encouraged the use of Twitter in the classroom to encourage student discussion. I believe that there are many options for how this could be utilized in a computer science based course, such as discussion topics for different topics. This would be an excellent way to encourage students to participate outside of the classroom. Lastly, as part of one of my service projects, I have been creating a series of animated video tutorials for students to use. I look forward to exploring how these tools can be used in other classroom settings.

TEACHING RESPONSIBILITIES

As I grow in my education, I have continued to expand my teaching responsibilities. In spring of 2015, I worked as a teaching assistant for Database Systems 6160/8160. In fall 2015, I served as a teaching assistant for Knowledge Discovery in Databases 6162/8162. This semester, I am serving as an instructor for Database Systems 3160. It carries significantly different responsibilities from serving as a teaching assistant.

As a teaching assistant I have prepared course materials, graded student work and presented material to the class. I have lead class sessions on several occasions. I held regular office hours and have met with teams and individual students. I have also experimented a bit with holding virtual student meetings using video chat during my time as a teaching assistant for Database Systems. I believe that this is a useful practice, and I hope to explore it further in the future. I believe that serving as a teaching assistant helped prepare me for my current responsibilities.

As the instructor for Database Systems, I create materials, grade work, lead lectures, conduct classroom activities, meet with students, and supervise my TA in grading work. One of the most interesting challenges of serving as an instructor rather than as a TA is the amount of administrative and logistical work involved. For example, I believe in contacting students that miss multiple successive classes. This requires keeping careful track of attendance, and monitoring patterns of absences. These are tasks that are generally not performed by TAs.

PRESENTATIONS

Fall 2014

Koontz, T. M., & Plank, K. M. (2011). Can reading questions foster active learning? A study of six college courses. *Journal on Excellence in College Teaching*, 22 (3), 23-46.

Can Reading Questions Foster
Active Learning? A Study of Six
College Courses

Laurel Powell



Gibson, F. Y., Kincade, D. H., & Frasier, P. Y. (2013). Using Classroom Competitions to Prepare Students For the Competitive Business World. *The Journal of Effective Teaching*, 13(1), 64-77.



Spring 2015

Kohut, Gary F. (2012). Enhancing Student Collaboration in Global Virtual Teams. *The Journal of Effective Teaching*, 12(3), 44-60.



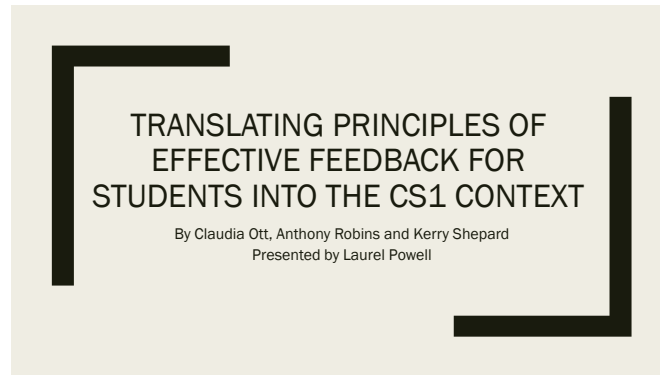
Fall 2015

"You Tube as a Learning Tool". Fralinger, B., Owens, R., *Journal of College Teaching and Learning* (2009), 6(8), 15-28.



Spring 2016

"Translating Principles of Effective Feedback for Students into the CS1 Context", by CLAUDIA OTT, ANTHONY ROBINS, and KERRY SHEPHARD, ACM Transactions on Computing Education, Vol. 16, No. 1, Article 1, January 2016



MASTER TEACHER LECTURES

Fall 2014

In November of 2014, I had the opportunity to attend one of Dr. Souvenir's lectures. It was a rather small class, focused primarily on the review and discussion of a Powerpoint based lecture. This was an excellent opportunity to observe his teaching methods. One notable element was how Dr. Souvenir reinforced previous lessons through repetition and drawing frequent connections to the current topics. He also worked to encourage class questions to help with retention. His delivery style was very animated, which I believe improved engagement. Attending this lecture was an interesting experience, and I hope to be able to use some of his methods of engagement myself in the future.

Spring 2015

This semester, I attended one of Dr. Latulipe's classes. This was a very unique experience for me, as it was a flipped classroom. One thing that was important was how much the students seemed to want to participate. Students seemed eager to participate, to the point that there were more volunteers than there was class time for. I believe a contributor to this was that she was very encouraging, even when students' designs had problems. I was very impressed with her ability to point out the problems in a design without being discouraging. Attending Dr. Latulipe's class was a rewarding experience, and I hope to be able to observe other flipped classrooms and other classes with Dr. Latulipe.

GRADUATE PROFESSIONAL DEVELOPMENT SEMINARS

Fall 2014

On October 1, 2014 I participated in Dr. Robinson's workshop, "Using the Pivot Database to Search for Funding Opportunities". The purpose of this event was to familiarize us with the Pivot database. We were led through account creation and instructed on the rules for using the UNCC system. We were then shown several of the features, such as how to highlight various funding opportunities and set alerts and the details of the search system. Some of the presentation was dedicated to showing us how to refine our searches for best results. In the academic community, finding funding is an extremely relevant issue. I believe that this workshop gave me some useful skills for seeking opportunities in the future.

I attended Dr. Lisa Walker's panel, "Preparing for Your Oral Defense" during the 2014 fall semester. This was a panel based event. Dr. Rauch was the most active speaker and talked about his defense in detail. Most of the time was spend in a general question and answer format. The panel discussed their own defenses. They touched on issues like committee selection and the best times to give a defense. This event was very well attended. Approximately twenty-five people attended this event and finding a seat was rather difficult. This seminar had an audience from many different departments. Some mentioned that they will be giving their defense in the next several months while others are only beginning the PhD program. I appreciated this event for its address of some of the issues involved in preparing a defense.

CENTER FOR TEACHING AND LEARNING PROGRAMS

Fall 2014

On October 20, 2014, I participated in Dr. Jaesoon An's event "Models of Blended Courses Workshop". The primary focus of this event was a discussion on the creation and use of blended courses. Several case studies were discussed in detail. This event made me consider how to best create a blended course. One element that was particularly interesting was the discussion on what elements of a course should be transferred to outside of class computer work and which elements should remain in the classroom. Another useful element was the discussion that was sparked by an attendee's negative experience with the blended model. We believe that his experience placed a bit too much emphasis on independent student work, so much that important difficult concepts could not be addressed. I believe that may help me in the future to create courses that are more balanced and that do not place so much stress on the students outside of class.

I attended "Tweet and Greet: Using Twitter to Facilitate Student Writing, Collaboration and Reflection" in November 2014. It was a presentation and discussion led by Dr. Justin Cary. Our speaker started by giving a brief introduction to Twitter to those who were unfamiliar with it. He had some minor technical difficulties with his presentation, which prevented him from covering everything he seemed to want to show us. He touched on how he had used twitter with his classes and showed us some techniques for creating feeds for class purposes. He also led us in a discussion on our experiences with classroom based Twitter use, and how we could integrate it into our classes in the future. I learned some new Twitter features that I had never considered. I also learned a bit more about trying to create an interactive classroom. I hope to be able to use the techniques we discussed, particularly the question and answer tag, in a class.

Spring 2015

I attended “Starting a Conversation with Surveys” on March 31, 2015. It was led by Bruce Richards and Dr. Kurt Richter. The focus of the workshop was on using surveys as conversation openers. The workshop opened with a discussion of the nature of conversations, and then moved into a discussion of how to use surveys to create a dialogue. The emphasis was on helping teachers understand their student’s knowledge level and thoughts about the course. Mr. Richards and Dr. Richter discussed both ways of using surveys and briefly touched on some possible tools. I was personally interested in the discussion of using surveys to assess how students are absorbing the material. One idea that was mentioned was using feedback to determine when students need to slow down or are ready to move on. I hope to be able to use some of these techniques in the future for my own teaching.

In April of 2015, I attended Dr. Tracy Rock’s presentation “Problem Based Learning to Promote Student Engagement”. The presentation was an introduction to using problem based learning in a classroom setting. The seminar was lightly attended, which encouraged discussion between Dr. Rock and the audience. She discussed the nature of problem based learning and some of her own classroom experiences with it. Also, she stressed how important problem based learning is to teaching critical thinking. Dr. Rock concluded with some discussion with the audience on how they could use problem based learning in their specific classrooms. I was impressed by Dr. Rock’s ideas and hope to be able to use them in my own classes. The ideas of stressing real life problems and anchoring the course with a project could be readily applied to many subjects. I enjoyed attending this workshop and hope to be able to use what I learned.

Fall 2015

In October of 2015, I attended Sam Eneman’s workshop “Quizzing with Moodle 2”. This discussed how to use Moodle to easily set up quizzes for students. The focus was on using the automated tools for low stakes quizzes. Mr. Eneman highlighted various tools and means of accommodating different student needs. Additionally, we discussed ways of using quizzes as learning rather than strictly as assessment tools. I believe that the skills I learned in this seminar will be valuable when I move on to teaching, particularly on an undergraduate level.

COMPUTING LEADERSHIP SERVICE

Fall 2014 and Spring 2015

For computing leadership service, I chose to do a project targeted at improving computer literacy for homeschool students. In the fall of 2014, I taught a class to a group of students from a local homeschool group. We held weekly sessions each lasting an hour. I wanted to focus on basic computer skills that they could utilize when they started their college careers, rather than more technical topics. I also wanted to show ways that using a computer could be fun and interesting rather than intimidating. Some of the sessions were spent on teaching the students how to use basic tools to help them with later college courses, such as a brief introduction to Microsoft Powerpoint, Microsoft Excel and Microsoft Word. Some of the students had used these before, but others had a much more limited understanding. One of my goals was demonstrating how these programs could be applied to their classes, such as using Excel for a science or math class, with examples from my own work. Another priority, was helping them learn the basics of using their own computers more effectively. We discussed how files are stored and saved, organizing documents, and cloud storage. We also briefly discussed some issues related to basic computer security. Several sessions were dedicated to helping students learn the basics of using photo

editing and vector graphics tools. These are useful for many computing oriented tasks, but are also an excellent way to show how using technology can enhance creativity.

For the spring semester of 2015, I attempted to expand my project to reach a larger group of students. I decided to take the materials and resources I created and formalize them. This led to posting my tutorials and topics online so people can read at their convenience. I made significant adjustments to my planned list of materials. Many of the issues that I had touched on briefly in my class, I expanded into longer pieces. I discarded a few topics, and added a number of others.

One of the most interesting parts of the experience was the challenge of changing material that was created to be presented in person, into self-contained lessons. This required going into considerably more depth on some of the points than I originally planned. One of the most interesting parts of this project, was deciding what level of depth and amount of technical language to include. I decided to target my audience very precisely, and focus on middle and high school students that have limited experience using their computers.

Fall 2015 and Spring 2016

In the fall semester of 2015, I was inspired to start a new project. I decided to create a series of instructional videos for students on working important problems used in Knowledge Discovery in Databases. I originally had the idea to begin working on this project while holding informal study sessions with other students. I create the videos using widely available open source software, and post them publically on YouTube. This process involves creating problems, animating them, and recording a voice over to explain the procedure. I have continued this project into the spring semester of 2016, and hope to continue it into the future. My time this semester doing classroom teaching has inspired more videos, and I hope to continue expanding my library of material into the future.

As I spend more time doing classroom teaching, I have become convinced that these videos have significantly impacted my lecture style. Spending many hours listening to recordings of my own voice, and re-recording anything that was too fast, or unclearly spoken has changed how I speak when I lecture. I feel that this experience has taught me a great deal about explaining concepts in a clear manner. They have helped me improve my skills in creating clear illustrations of concepts. These videos have been a significant time investment, but it is extremely gratifying to create something that can be used on a wide scale. I was extremely gratified to discover that as of May 2016, my most popular video has had over 5000 views from many countries.

REFLECTIVE SUMMARY

My experiences in the GAANN program have given me the opportunity to develop a perspective on teaching that emphasizes student engagement and instructor transparency. My experience as a classroom teacher has helped me to develop strong beliefs about student activity and involvement. Some of the most rewarding experiences of my teaching career have come through the service projects that I have done through the GAANN program. The seminars I have attended have emphasized the importance of following new developments and integrating technology into the teaching process as I hope to do in the future. I believe that my time in this program has helped me grow as a teacher.