These Continuing Voyages

by Bill Arnot

I have several short and long term goals with regard to my own academic learning for the future. My studies at Michigan State University have left me acutely aware of my deficiencies with regard to assessment, particularly formative assessment. I wish to continue studying methods of assessing students that are non-traditional. One course in particular that I enrolled in, *Approaches to Educational Research*, identified an area interest in qualitative and quantitative data analysis in education. As someone who teaches statistics and is responsible for managing my school's data collection and analysis this field of study appeals to me. My future plans may include additional coursework in this field.

I am a relatively new educator, this being my fourth year teaching. I teach mathematics and many of my ideas of assessment have changed dramatically over the past few years. This has influenced many facets of my teaching, including how I perceive and value assignments assigned in my classes. I view everything that I have students complete as a formative assessment and use this to guide my own instruction. I am less concerned about completing every chapter and section in our textbook as I am with students mastering each standard. Studying McTighe and Grant Wiggins' *Understanding by Design* has influenced my lesson planning significantly. I want to carry these design elements forward as I transition into a flipped mastery model of class design. I will be continuing to study these methods for implementation in the future.

This all culminates in an initiative to improve and streamline my own assessing practices. I feel that I have made great strides in the past year, but there is still much to be done. One of the most difficult tasks for me is to implement an assessment that does not conform to the normal quiz and test format. I want my assessments to be grounded in problems of

practices, where students must use the tools they learned to solve a challenging problem. An area of particular interest and synergy for me is computer science. I have recently become certified to teach computer science classes, however I am more interested in using programming as means for demonstrating the power and usefulness of mathematics. More than that I want to use it as a means of formative assessment. To assess transfer of knowledge and thus student understanding.

My studies in the course *Approaches to Educational Research* peaked my interest in continuing my education in qualitative and quantitative data analysis. I teach statistics in a high school setting and have devoted much time studying this field. I also have the responsibility in my school for maintaining and analyzing data gathered from common local assessments and standardized tests, using this information to inform my colleagues of their students strengths and weaknesses. Before my time at Michigan State University I had not considered the value of qualitative research. I am very interested in pursuing more coursework in this subject. This would allow me to better facilitate staff professional development with regards to interpreting and analyzing the multitude of data they must sift through.

Further study in data analysis could also lead to other career paths. I teach in a Department of Defense Dependent School system and there are several careers at the district level in this field. This would allow me to study trends in a dozens of schools and help make decisions that will affect student learning and teacher support. Being apart of the greater decision making process, I could help address some of the systemic issues that separate local and district levels.

At the very least continued study of data analysis will support my first goal of improving my formative assessment practices by giving me the tools and resources needed assess educational research and implement it in my classroom. Being able to conduct research reviews

on problems of practice in my teaching will be of great benefit, especially if it requires interpreting the results of studies conducted on topics of assessment practices in mathematics.

The goals that I have set for improving my own assessment practices while pursuing additional study of qualitative and quantitative data analysis are the logical next steps in the continuation of my learning in education. At this point in my career I cannot fathom a time where I will stop trying to learn more about teaching and using what I learn to inform my own instruction and understanding of student learning. Should ever a time come to pass I will know that my time in teaching is at an end, for learning only sharpens the skills of a teacher, lest they fade away.