Reflective Essay

Teri McGraw

University of West Georgia

Introduction

Imagine a world without diseases, illnesses, physical or learning limitation. Imagine a classroom with 21st Century technology tools that will change the way education is received. These dreams are dreamt by scientists and researchers who are working to create a new world. The new world for them is determined by their vision. Their vision leads their research. Their research can shape a new world.

Whatever their reason for conducting a study, all researchers must follow safe and fair trials and value honesty, trust, and respect. In the recent past, scientists did not always conduct safe and fair trials. They did not value honesty nor display trust and respect for their patients. Thinking back to World War II and the Nazi medical war crimes sends a shudder down most people’s backs. It is difficult to imagine submerging someone in freezing water to find out when their body systems would shut down. It is hard to imagine having the cure for syphilis, and not sharing it with your patients. Thankfully, scientists have learned from the terrible atrocities other scientists have conducted, and we now follow more stringent rules when conducting research.

Upon each discovery, research is changing our world. As I embarked on studying research, I thought long and hard about my role in education. As a teacher of the gifted, it is my duty to be reflective in regards to who qualifies, and who does not qualify for gifted services in the state of Georgia. With our current testing, are we excluding some children on the basis of testing which some argue is biased or other bias? Delving deeper into this subject by reading current research on gifted education has been fascinating.

Review of Learning

In order to meet the course objectives, I participated in all the discussions, read the textbook Educational Research Quantitative, Qualitative and Mixed Approaches by Burke Johnson and Larry Christensen, and completed all the assignments. The textbook had extra resources such as a web-based student study site that offered extensive review, flash cards, and quizzes to solidify these challenging topics. The web site was particularly helpful for the chapters on the different types of research as they proved rather complicating.

When I began the class, I started by finding 15 articles about 21st Century tools. Upon completion of the article chart, I realized that I had no common thread from which to write a literature review. Then, I reviewed the guidelines for writing a research question that were found in the textbook and continued searching until I found a topic that looked interesting to me. The authors stated that “researchable questions are numerous in education. To identify them, all you have to do is develop an inquisitive attitude and ask questions”(Johnson & Christensen, 2008, p. 61). I started thinking about what bothered me in my job and how I could fix the problem. I began wondering why so few minority students are in the gifted program in my school, so I found articles about gifted testing and minority students.

I could have improved my learning by having the end in mind before I began my research. I started by randomly looking for peer-reviewed scholarly studies that dealt with 21st Century technology. I did not have a research question in mind, so I was merely surfing for articles. Also, I would have preferred to have read the entire textbook prior to beginning the article chart. I think it would have helped me when I was reading the articles because some of the terms I did not understand at first. Since this was a summer course, it was virtually impossible to have read the textbook prior to beginning the course work due to the compressed schedule.

 After reading many research studies, it seems to me that convenience sampling is fairly common in educational research. The downside to convenience sampling is the inability to generalize to a larger population. If we read a study conducted in an urban school setting, would it be fair to generalize that study to a rural setting? I would have to say no. Population validity is an area where educational researchers must work to improve so that we are able to generalize from a sample of individuals to the larger target population. Educational researchers try to improve their population validity by random selection. Sometimes that is difficult, and the sample is drawn from an accessible population. How we derive our research participants was an area that was particularly valuable to me.

Implications

Now that I am more aware of how to read a scholarly research, I know certain things to look for in a study. Did the researchers use a random sampling technique? ”**Random** selection is how you draw the sample of people for your study from a population. **Random** assignment is how you assign the sample that you draw to different groups or treatments in your study” (Trochim, 2006). There can be either random selection or random assignment in studies. Other studies have both random selection and random assignment. Still, other studies have neither random selection nor random assignment. Random samples are typically more unbiased and more representative of the population than non-random samples. Cluster sampling is another effective method to use for educational research. “Sampling is used to get information on very large populations for reducing field time, reducing costs, and increasing accuracy”(Lovekar, ‘n.d.’) By randomly selecting a certain number of clusters, and interviewing all those students, researchers are able to reduce time needed to conduct their study, but they do not sacrifice their ability to generalize to a population. If we cannot generalize the study to a larger population, then the study may not be successfully replicated in my classroom and may be of very little value to me.

 I have already begun to look at gifted education and how teacher perceptions impact referrals for gifted children. I plan on sharing this information with the other gifted teacher at my school to see how we can impact teacher perceptions of students. Part of our gifted referral process includes teacher referrals. If teachers do not perceive their minority students as gifted, those students may not be referred for testing. To counter teacher perceptions, we offer parent referral and self referral to gifted testing. Although this is an acceptable option, I would prefer to teach our teachers how to recognize giftedness in all children.

Conclusion

Our daily lives are impacted by research. “Recently, scientists have shown that genes do indeed play a role, at least in speaking, with the discovery of genes associated with stuttering. Their discovery is beginning to push back the fog of mystery that surrounds stuttering and opening up new avenues for treatment” (Latham, 2010). From stuttering to heart disease to blogging in the classroom, research studies change the way we live our lives.

Researchers gather their participants from different samples which are drawn from the general population. Sometimes researchers use convenience sampling which makes it difficult to generalize their findings to the larger population. There are different approaches to gathering samples, but to increase validity to the larger population, researchers should use random selection and random assignment.

As a teacher of the gifted and a student of research, I should be more of an advocate for all students. It is my duty to critically think about our gifted testing process. With our current testing, some research demonstrates that we are excluding some children on the basis of testing and teacher perceptions of giftedness.

References

Johnson, B., & Christensen L. (2008). *Educational Research Quantitative, Qualitative and Mixed Approaches*. Thousand Oaks, CA: Sage Publications, Inc.

Latham. R. (2010). *The Long Road to Discovery: Stuttering Genes Turn Up in the Most Unexpected Places.* Retrieved from<http://www.nidcd.nih.gov/health/inside/spr10/pg1.htm>

Lovekar, V. (‘n.d’). *Cluster Sampling Advantages.*  Retrieved from <http://www.buzzle.com/articles/cluster-sampling-advantages.html>

Trochim, W. (2006). *Random Selection & Assignment*. Retrieved from <http://www.socialresearchmethods.net/kb/random.htm>