

Educational research, when done by qualified individuals, can give practical ways for improving education for teachers, students, and the community. There are certain criteria and or standards that need to be followed when conducting educational research in order for it to be useful to all parties involved.

When beginning educational research, a problem in the field of education needs to be identified. For example, how does parental involvement affect student success in the middle school years? Parents want to be involved in their children's success, but how much is enough? In the AERA and Program Evaluation Standards articles, it states that when conducting research, the rights of the persons being studied are very important. In addition, certain sensitivity to all involved should be exhibited by the researcher so as not to offend anyone. Both articles agree that the research should be honest and reflect the integrity of the educational researcher. Researchers should be well informed in the area of the subject being researched. An educational researcher needs to be involved in reviewing the literature of the problem in question. When reviewing the literature all materials need to be read in full, as to not leave anything out to ensure that the research is valid, as stated in both articles. When reading the literature pertaining to the problem, the researcher needs to remain fair and non-discriminatory as not to sway the research findings. All personal feelings need to be put aside when conducting research.

Specifying a purpose for educational research is the next step in the process of research. For research to be useful in the field of education, it needs to have a purpose. When research has a purpose it can help to change things in the area of education as stated in the AERA article. When education is improved, teachers gain knowledge. In turn, teachers help their students gain knowledge, thus the community's future is strengthened. That in itself serves a purpose in building positive relationships between school and community, which helps all individuals to grow and prosper. Students who know that their teachers, parents, and community all care about their education, from experience, are more likely to strive to do their best in school.

Collecting data is an important tool when conducting educational research. For the research to be valid, the group needs to be identified and addressed. In the AERA article it states that when working with children one needs to be very careful and sensitive to children's feelings. Researchers need to be tactful in how they approach children when asking questions for educational research. In both articles, they agree confidentiality is to be respected. In the AERA article, it states that a research participant can stop being a part of the research at any time during the study. Helping the participant, whether child or adult feel comfortable and at ease during the research, is very important. In addition, in the Standards article it states that the research should cause no problems to all parties involved. Furthermore, no money shall be collected to sway the research findings. Any monies collected need to be put into conducting further educational research on this subject. Both articles agree that all research data is to be made public. Thus, all findings are to be used in helping the educational system evolve and grow stronger for school and community. In addition, it is extremely important to consider a wide breadth of information throughout the process, even that which might not be first considered. Oxford (2002) states that, "This includes areas of study such as education management, teacher thinking, and those relating to post-compulsory education" (Evans, 2002).

After the data is collected, an educational researcher must then analyze and interpret the data at hand. In both the AERA article and The Standards articles, they both agree that the findings need to be carefully described for all to understand. What good are the results if no one can understand and implement them to enhance the educational system? As stated in the Standards article, research should be reviewed so any errors can be corrected and revised. The results need to be stated honestly, openly, and in great detail. Questions should be answered in full to be as clear as possible. As also stated in the Standards article, time is of the essence. If the research is not completed with an appreciation of time limits, it will be of little or no use to the educational system it was intended to help. One must also be able to put all of these things into context. Without a

proper understanding of the context surrounding the research data, it is impossible to form any coherent conclusions. Subotnik and Walberg (2006) write, "The committee argued that these features...required close attention to powerful contextual factors in the educational research process" (Subotnik &Walberg, 2006).

An educational researcher needs to report and evaluate the research. When all the research is completed, the researcher needs to ask themselves if the research is valid. For example, was all the research defined as clearly as possible? Or, can the research be defended? Freed and Ryan (1991) break the process down in detail and show that, with the proper evaluation of the process, research becomes much easier for readers and researchers alike to understand (Freed & Ryan, 1991). In the Standards article, it states that the research results will help the readers of the report find where the areas in education are lacking and promote where more professional learning needs to take place. From experience, all schools have mission statements and goals. Research findings help learning institutions continue to proceed in their mission statement and achieve their goals. These findings should be easy to implement for the growth of the education and will benefit the teacher, student, and community.

In conclusion, educational research is a positive community building asset to any educational institution. Education is the key to a positive future for the next generation of children. It leads to promoting good solid growth in the education system, which in turn produces teachers, parents, and children that build strong schools and communities.

References

Subotnik, R. F. & Walberg, H. J. (2006). *Scientific Basis of Educational Productivity*. Information Age Publishing.

Freed, N. M. & Ryan, J. M. (1991). *Handbook of Statistical Procedures and Their Computer Applications to Education and the Behavioral Sciences*.

Evans, L. (2002). *Oxford Review of Education*.

Running Head: THE 6 STEPS IN THE EDUCATION RESEARCH PROCESS

ARTER

The 6 Steps in the Education Research Process

John Smith, [your uni]

2008

Student: John Smith

Subject: EDU602/Unit 1/IP

Lecturer:

Date: January 12, 2008

Abstract

It is critical for education students to be aware of the research process. Freed and Ryan (1991) advocate that students use their technique for breaking the research process down into details that will in turn allow for the proper evaluation of the process. In this way the student of education, likely to become a future teacher or to work in the education system in some capacity, is in a much better position to; be aware of best practices; understand how to enhance student learning; recognize a valid research study and one that is not; apply the findings of research in an effective and efficient way within the classroom.

When undertaken by qualified individuals education research can provide practical ways to improve practices for teachers, as well enhance students and community engagement in the learning process. The criteria for research ensures that education researchers (like researcher in other disciplines) produce studies with *meaningful* results, that extend current understandings of a topic and lead to practical interventions/best teaching and learning practices.

The first step in the research process is to identify a problem. Identifying a research problem provides an overall purpose to the education research. It is extremely important to consider a wide range of information throughout this part of the research process. Evans (2002) states that, "This includes areas of study such as education management, teacher thinking, and those relating to post-compulsory education" (p. ??). For example, with regard to student learning: How does parental involvement affect student success in the middle school years?

The second step in the research process is determining the method of data collection. Participant recruitment is critical: What is the population which is eligible; random or non-random selection; random/non-random group assignment or single-group study. Participant rights

must be respected by way of informed consent (i.e., voluntary participation, anonymity and withdrawal without penalty). It must also be made clear in research reports if participants were provided with incentives, such as class credit. With regard to using elementary children (K-6), the researcher must be aware of and sensitive to the needs, feeling and expectation of children (AERA, 2005). It is essential that children feel comfortable with the research experience otherwise the behavior or responses they provide will not lead to meaningful data. Instead, they may try to please the research (socially desirable responses) or be confused and not understand what it is they are meant to do.

Data collection is dependant on what it is the researcher wants to measure. Levels of measurement of variables determine how those variables can be measured. It is critical that the instrument to measure the dependant variable be reliable and valid. Psychometric tools usually necessitate the researcher spending vast amounts of time becoming familiar with administering and scoring the instrument across a variety of contexts.

The third step is the actual data collection or procedure. It is important as it allows future researchers to replicate the conditions of the study, and so be able to compare results across studies. Reporting of procedure can identify confounding variables (e.g., noise, teacher away the day of testing, how surveys were distributed).

The fourth step in research is to analyze the collected data. Statistical tests used must be suited to the level of measurement of the data. Reporting descriptive statistics gives an overall characterization of the data, and the differences or similarities among participants with regard to the measured variables. Tables and graphs are encouraged to clearly and succinctly communicate findings to the reader.

The fifth step in the process is to discuss the findings of the study; were the hypothesis/s supported or unsupported; how do the findings of this study relate to the literature reviewed for the study (i.e., do the results support/not support previous findings); and what are some reasons that the results found, were found? The discussion of research requires that the researcher put the results into context of the parameters of the research study. For example, education research taking place within a low socio-economic school may not reflect the context of students/teachers at a school in the higher socio-economic bracket. Ultimately, proper of the context surrounding the research data aids the researcher in forming coherent conclusions. Subotnik and Walberg (2006) state that education research "...required close attention to powerful contextual factors in the educational research process" (Subotnik & Walberg, 2006, p. ??).

The assessment of the strengths and weaknesses of a study also takes place in the discussion area of the report. Reporting the strengths of the study enables the researcher to validate the study they have undertaken, the methods used and the conclusions drawn.

The sixth and final step in the research process is to communicate the results. Ideally, this takes place with a publication in a reputable, peer-reviewed journal. However, poster and/or paper presentations at conferences or research seminars, or even the production of a thesis/dissertation to be placed in the library and/or an online archive, allows for greater dispersion of findings which can sometimes be accessed by the general public.

In conclusion, research in education has stringent parameters to enable accurate measurement of real-world phenomenon. For the discipline of education to grow professional research is necessary.

References

American Educational Research Association (AERA). (2005) Ethical Standards. Retrieved January 12, 2007 from <http://www.aera.net/aboutaera/?id=222>

Evans, L. (2002). Evans, L. (2002). What is Teacher Development? *Oxford Review of Education*, 28 (1), 123-137

Ryan, J. M., Hess, R.K., & Freed, M.N. (1991). *Handbook of Statistical Procedures and Their Computer Applications to Education and the Behavioral Sciences*. Washington: American Council on Education.

Joint Committee on Standards for Educational Evaluation (2008). Program Evaluation Standards. Retrieved January 12, 2007 from <http://www.wmich.edu/evalctr/jc/>

Subotnik, R. F. & Walberg, H. J. (2006). *Scientific Basis of Educational Productivity*. New York: Information Age Publishing.

