

## Article 29

### **Doing Research to Learn (to Do) Research: DR2LR**

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Paper based on a program presented at the 2012 SACES Conference, September 29, Savannah, GA.

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#### **Abstract**

School counselors and other educational professionals need to be trained to do research in order to demonstrate the effectiveness of their programs and often justify their professional existence. Doing research to learn the process of research (DR2LR) has been recommended and is demonstrated in this article. By incrementally implementing the steps that have been suggested by others into a reasonable sequence, simplifying the traditional formal research thesis or dissertation process, utilizing ideas from action research, and strategizing how to keep students progressing through their research, meaningful research can be implemented at the master's level that initiates students to assessment data in their practices beyond the previous structure of research courses. Key words: research, action research, teaching research, data, assessment, counseling, counselor education, thesis, dissertation

Professionals in K-12 educational fields, including teachers (Turner, 2010), administrators (Batagiannis, 2011), and counselors (Dahir & Stone, 2003; Granello & Granello, 1998; Mason & Uwah, 2007) can be taught to do the research, which they increasingly are being tasked to do, to demonstrate the effectiveness of their programs and often justify their professional existence. By systematically directing them through a research process, they both do meaningful research and learn how to do research (DR2LR). The emerging pedagogy for instructing school counselors and other school professionals to become researchers includes a consistent set of suggested steps.

## **Background**

The case for pursuing action research does not simply rest on external pressure but rather the more lofty responsibility to create inquisitive professionals who not only practice their craft, but also effect positive change within schools. Rowell (2006) emphasized the importance of action research in that it creates a bridge between theory and practice. Action research, Rowell argued, “[E]mphasizes practitioner action for change in conjunction with rigorous reflection on practice and careful gathering and analysis of data” (p. 376). Beisser and Conner (2004) posited that action research is important for both pre-service and in-service educational professionals because it helps individuals “define themselves as thinkers, practitioners, and future leaders in the field of education” (§ 22). Practitioners using action research, thus, develop the skills necessary to identify problems and take “defensible, responsible plans of action” (§ 22).

Such a path contrasts with the traditional model of preparing educators for research that involved graduate students cognitively learning research design, research terminology (e.g., validity, reliability), descriptive and comparative statistics, and qualitative and quantitative research processes. These courses, while informative, delivered little application to real-world problems. Sprenkle and Piercy (2005) described a “research-practice gap” in the education of counselors that allows research to be dismissed as “irrelevant” and “incomprehensible.” The result, they argued, was that “research does not inform practice, and thus clinicians do not refine their practice. They keep doing what they've been doing” (p. 4).

Despite the increasing realization of the effect of the gap between research and practice, the following description of counselors by Anderson and Heppner (1985) almost 30 years ago still has merit:

... the potential practitioners [school professionals], during their training may pay lip service to research as being important but upon graduation they will not do research, will not read the journals, and will not see how research is useful to them or to their clients. The research training they received will not be of much value to them. (p. 7)

Anderson and Heppner (1985) suggested a series of practical actions that could bridge the gap between the perceived irrelevance of research and the ingraining of research into professional habits. These suggestions included teaching applications that address “real-life problems,” requiring students to select and read, weekly, two journal articles, and structuring consecutive practicum courses that include field study designs, the evaluation of programs, data analysis, participation of the team and the “verbal and written communication of research results” (p. 13). The idea of applied research, as Ansdell and Pavlicevic (2001) expressed, is to change research from a removed process and transform it into sustained inquiry. Research, they asserted, addressing graduate level students, should be “a process first” but also “an attitude towards your work and your openness to understand more about it—for yourself, for others” (p. 11). A consensus seems to have formed around these ideas that we call doing research to learn (to do) research (DR2LR), which has similarities to action research and traditional thesis and dissertation research.

## **DR2LR**

DR2LR suggests that introducing action research at the master's level should progress using incremental steps beginning in counselor orientation and extending throughout the program (Turner, 2010). Although the literature has offered various steps in implementing meaningful, actionable research, the categories involved in our model have emerged from heretofore isolated recommendations of various researchers. First, students need to learn some basics about research while they examine the literature and define their topics. These efforts are presented in a PowerPoint research proposal, which along with Institutional Review Board (IRB) training and draft IRB proposal documents complete their initial training. Next they begin a series of 1-hour courses; the first of these transforms the PowerPoint document into the equivalent of the first three chapters of a thesis or dissertation. IRB approval is acquired at this time. Data collection and its placement into an Excel spreadsheet complete the second hour of the research project. The final hour includes the completed document with the results and discussion of the results, references, an abstract, and submission of the material for review by a professional organization, usually as a presentation at a conference.

The depth of discussion in each section and literature review are not as extensive in the DR2LR process as it would be in a thesis or dissertation: fewer citations in the literature review; not as many hypotheses; a single group of students, classroom, or school in the sample; and the assessments that are utilized are not as rigorous as a thesis or dissertation. Therefore, the results, like most action research, are not as generalizable as more meticulous work, but individual schools and programs can be appropriately evaluated through this process. The training issues (e.g., do the students become more familiar with conceptualizing how to do a study; do they become more comfortable with what is involved in gathering data and experience using data to make their points?) seem to be improved. (See student comments in the Results and Discussion section below for more insight into DR2LR benefits.)

Philosophically, our process reflects Anderson and Heppner's (1985) work but goes beyond this foundation by defining a research sequence. Turner (2010) offered a developmental sequence but stopped with the research proposal, and Mason and Uwah (2007) presented suggestions for actions following the proposal stage. Further, Mason and Uwah suggested that the sources for data retrieval be considered early in the research process. Batagiannis (2011) offered a realistic approach for the critique and revision of the proposal steps that differs in their intensity from traditional critiques. Finally, Riley and Motzen (2011) generalized a cycle that could occur during the research process when applied to program evaluation and suggests observing the impact of the evaluation process on the program. The intent of doing research at the master's level is to help professionals define best practice and justify their professional purpose and existence. (See Seven Suggested Individual Steps in Teaching Research, Table 1).

While the steps suggested here could include other ingredients, they represent a compilation of many substantiated efforts to change the process of educating master's level and higher candidates to do research. In 2006, the undergraduate and graduate teacher education and graduate counselor education programs in the College of Education (CoE) at a rural Historically Black College/University (HBCU) in Georgia were re-designed to include research proposals at the undergraduate level and to propose and

Table 1

*Seven Suggested Individual Steps in Teaching Research*

<b>DR2LR</b>	<b>Teaching Research Recommendations from Other Sources</b>				
<b>Steps in Training Students</b>	<b>Anderson &amp; Heppner (1985)</b>	<b>Turner (2010)</b>	<b>Mason &amp; Uwah, (2007)</b>	<b>Batagiannis (2011)</b>	<b>Riley &amp; Motzen, (2011)</b>
<b>1. Teach Fundamentals of Research Design</b>	Teach Research				
<b>2. Have Them Report on 10 Articles</b>	Regular Reading of Research Literature	Immersion in the Literature; Article Reviews			
<b>3. Have Them Identify a Research Topic &amp; Sources</b>		Identification of Research Interest Area	Decide What to Study/ Formulate the Research Question	Identify Problem or Area	
	Retrieval of Research Information	Formal Literature Review	Identify Data Sources	Reconnaissance or Literature Research	
<b>4. Have Them Present a PowerPoint Research Proposal</b>		Ongoing Reflection Topics	Select or Design Your Intervention/Choose a Population Sample	Plan Development/ Evaluation/ Revision/ New Plan	
<b>5. 1-hour Course: Write Sections I, II, III &amp; IRB approval</b>	Comprehension of Research/Solve a Problem/ Research Practica	Research Proposal	Formulate Research Question		Develop a plan of Action for Evaluating Outcomes
			Select or Design Your Intervention		
			Choose a Population Sample		
<b>6. 1-hour Course: Gather &amp; Analyze Data</b>			Implement the Intervention and Collect Data/Analyze the Data		Act to Implement the Plan/Evaluate
					Observe Effects of Action by Documenting the Evaluation/Reflect on action and Plan Further Action
<b>7. Write Sections IV &amp; V; Finalize References; Write Abstract; Submit for Publication or for Presentation</b>			Share Your Data		

implement research at the graduate level in teacher and counselor education. The CoE completed accreditation from the National Council for Accreditation of Teacher Education (NCATE) in 2011, and the Department of School Counselor Education was accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) in 2012. The first cohort completed research and graduated beginning in May 2010. Through December 2012, 34 master's level students and six specialist students have completed research projects such as "Addressing the Advanced

Placement Equity Gap: Promoting the Success of African American Students,” “Impact of an AfterSchool Program on Individual Student Performance ,” “Improving Middle School Attendance Through Parent Involvement,” “The Impact of Mentors on the Academic Performance and Behavior of At-Risk Students,” “Improving Student Achievement Through Differentiated Instruction,” and “Improving Attendance and Grades of Ninth Grade Repeaters to Prevent Dropping Out of High School.” All of these studies have discussions on the implications for school counselors based on the literature and data from the study. In the rebuilding of the college and the department and through the inclusion of student research, much has been learned that could be added to the discussion of how research can be taught and learned. This article reports that experience.

### **Comparing DR2LR to the Traditional Thesis/Dissertation Format**

The recommended structure of the final research document is very similar to the key concepts of action research steps and is also a simplified thesis or dissertation outline. Having been through this research, students should have familiarity with and confidence in doing more research after leaving the program.

Mills (2010) described the steps involved in action research as the following: “identifying an area of focus,” “collecting data,” “analyzing and interpreting the data,” and “action planning.” While the DR2LR process in general does look like the named action research steps, the specifics at each step are different and emphasize qualitative conceptualizations and analyses rather than quantitative ones. In our process, traditional qualitative comparisons and statistics as well as quantitative concepts can be employed. Relatively straightforward analyses such as a paired sample *t*-test to assess improved CRCT scores as a result of a change in teaching process or a chi-squared statistic comparing graduation rates after implementing credit-repair programs move the research from qualitative to quantitative and could produce statistically significant results.

Just like the thesis and dissertation structure, problem and solution are presented in the first section; the literature is reviewed in the second; the research structure is described in the third; the data analysis is paired with statistics in the fourth; and the discussion about what occurred and was learned is presented in the fifth. The depth of discussion at each point and the literature review are not as extensive in the abridged DR2LR process as it would be in a thesis or dissertation: the number of hypotheses, the quality of the sample, and the assessments that are utilized are not as rigorous as in a thesis or dissertation. The results of this research are therefore not as generalizable. But do the students become more familiar with conceptualizing how to do a study; do they become more familiar with what is involved in gathering data and experience using data to make their points? See student comments in the Results and Discussion section below for insight into these benefits.

### **Details of the Model**

Building on the concepts listed above, the structure for the DR2LR process has evolved into brainstorming a topic, learning the fundamentals of research, making and presenting a research proposal PowerPoint, gaining IRB approval, writing the narrative of the first three sections (the proposal), gathering and analyzing the data, writing the last two sections, finalizing the references, creating an abstract, and submitting the research to a professional organization for presentation or publication. By taking a one-step-at-a-time

approach, students maintain focus on the next thing to be done and progress through the overall research task.

**Brainstorming a topic.** Three issues seem to dominate the choice of a topic: the interests of the student, the availability of data, and the interest of the professor.

**Fundamentals of Research Design course.** This portion of the model has been taught as a traditional 3-hour course but includes activities such as obtaining Institutional Review Board (IRB) certification, reviewing 10 articles related to the research topic, and presenting a 25-slide research proposal that has been reviewed and edited by faculty prior to presentation in class.

**Research proposal PowerPoint.** The research proposal PowerPoint becomes an outline of the student's research proposal. The PowerPoint includes: Section I—a statement of the problem, the solution, the hypotheses in clear English (not null hypotheses); Section II—the literature review from general issues concluding with the specifics of the intervention, the “action” the students are studying; Section III—the hypotheses stated in the null, the sample, the research process, the results, and a timeline for the study.

**IRB Approval.** Almost as difficult as actually completing the research is getting the IRB application, executive summary, potential consent form, local organization approval, outline of intervention program, and/or assessments or surveys. Students complete this portion as the PowerPoint presentation becomes finalized.

**First three sections.** The PowerPoint is developed into a narrative covering the information suggested in the outline. This information is usually considered a research proposal. References should be included, and citations should be formatted in accordance with the *Publication Manual of the American Psychological Association* (APA, 2009).

**Analyzing the data.** Collected data should be placed into an Excel spreadsheet to be placed into the Statistical Package for the Social Sciences (SPSS) for analysis. The Education Specialist program includes training in SPSS and ideally would pair these students to master's candidates for individual support with statistics.

**Last two sections.** Following the outline, the results of the data analysis are presented in Section IV and discussed in Section V. References should be finalized.

**Abstract.** Following APA (2006) guidelines, the abstract should be less than 150 words including information about the results of the study and include key concepts from the study.

**Proposal to professional organization.** A proposal should be submitted to a local or state professional organization for presentation or publication. Again, having done this process once, students are more likely to repeat the behavior.

## **Results and Discussion**

Students have provided regular feedback on numerous aspects of the DR2LR program. When students who completed the program in 2012 were asked to comment on their experience with the DR2LR research project, the responses were typified by the ones listed below. Many of their comments going through the process have guided us to amend the process into the format listed above and have generated many lessons learned.

## **Student Comments**

Rowell (2006) suggested that school counseling as a profession must begin to foster a “culture of inquiry” (p. 385) and a “sense of critical consciousness among counselors” (p. 386). To this end, we believe that students who have completed action research using the DR2LR model have evolved as professionals who conscientiously strive to reflect on their own actions, the goals of the profession, and utilize research as an integral part of their professional identities.

Although the idea of research for students can be overwhelming, one student commented that the DR2LR model decreased his anxiety regarding research:

The methodology is intended to break the writing and research processes into segments, allowing students to focus on one part of the project at a time instead of the overwhelming feeling that the entirety of the process may create. By completing the projects in steps and stages each semester, we can see positive progress and experience a sense of accomplishment all while gaining confidence in ourselves and in the process itself. For me, learning about research using this method has been a positive, rewarding experience. The process allowed me to learn research skills and methods in a gradual way, applying what we discuss in class along the way. While the big picture is always in view, I did not need to focus on the final outcome until I had completed the initial steps. I like the fact that, as you progress through the process, I was able to return to introduction and problem statement to make corrections that would enhance the quality of the overall paper.

Another student commented that she noticed a difference between her preparation and how it affected her in her professional life.

One of the biggest things that I’ve noticed with regard to my preparation as a counselor compared to other counselors who came through different programs was the lack of knowledge that other counselors seem to have when it came to data, research, and decision making. The first time I really noticed a difference in approach—really fundamental philosophy—was when one of my counseling colleagues, who had completed a different program, walked into my office as I was reading a journal article on a counseling intervention I was considering. She was shocked that I would read journal articles to inform my decision—she wondered aloud why I didn’t just “Google” it.

This experience is just one example of the differences I see in colleagues who did not become comfortable with the research process. As a school counselor, I am increasingly asked to examine data and make decisions based on this data. I am asked to prove my relevance and the relevance of my counseling program as it competes with other programs and activities within the school. I cannot imagine trying to tackle these tasks without having research experience.

## **Lessons Learned**

With the structure of the DR2LR research process in place, many concerns are addressed, but some reoccurring issues require clarifications and adaptations. Feedback and continuous improvement has brought these items to light.

**Defining the topic.** Students need to begin the program by brainstorming research topics. Students are introduced to the research model during orientation and actually begin to brainstorm topics of interest at that time. Research topics are vetted during the first weeks of the 3-hour research class. For some students, this is the most difficult aspect of the process. Often the students' ideas were too broad or their projects were not reasonable in scope. Less is more. Focus.

**Completing standards.** Because the model is built on incremental steps, the students are not considered to have completed a task until the standard has been met. If the student submission does not meet the standard, the activity is returned for correction. The next activity is not scheduled until the previous one is successfully accomplished.

**Publication manual and grammar.** Students are provided with information on appropriate citations and grammar throughout the program. The only way to produce competency in writing is to write and give feedback. Professional writing is stressed in numerous courses in addition to research, and all faculty are tasked to give feedback.

**Research sources.** In the information age, students need to learn to evaluate resources as well as the information they find. Students are informed of the limitations of using Google or Wikipedia and encouraged to become familiar with academic sources.

**Connect counseling to school goals.** We suggest that students focus their hypotheses on standardized tests or course grades in language arts and math (not GPA since it does not easily change), attendance, and disciplinary office referrals. This focus allows students to collect data quickly that is consistent with the goals of the school.

**Essential comparative statistics.** In addition to measures of central tendency and dispersion, the statistics that have been used over the past 4 years usually include chi-square, *t*-tests, and correlations, which can determine significance but which are not overly complicated.

**Completing research.** "Incompletes," either from lack of work or lack of quality, should be resisted. If students are not producing the work by midterm, they are asked to drop the course to avoid a low grade rather than receive an "I" or "IP."

**Grading time.** Having enough time at the end of the semester to evaluate the students' work is essential. A 30-day rule requires students to turn in their documents at least 30 days before their grade is due or have the possibility of not getting their grade when they want it.

**Avoiding plagiarism.** We use [www.turnitin.com](http://www.turnitin.com). Problems with the citation or quotes can be identified and corrected using these processes. Have the students submit their document to the Web site and make corrections first. The faculty will then submit for final affirmation of student creativity.

## **Conclusion**

The most important recommendation is that master's level students need to do research. Although the process of teaching research may seem daunting, counselor educators can create insightful professionals who are familiar with the research process



by using the DR2LR process or something like it to actually do research. Although some may have once believed that research belongs to the Ivory Tower, the reality is that research makes what we teach relevant by demonstrating its impact. Counselors must be able to link theory to practice, and research is the perfect vehicle for this task.

The research process that counselor educators and other educational professionals have experienced to complete theses or dissertations does not have to be replicated for master's student training. The process can be organized into sequential steps and simplified so that students learn the basics of research while at the same time performing research that they acknowledge as beneficial.

## References

- Anderson, W., & Heppner, P. (1985). *Research training for counselors: Philosophy and techniques*. Paper presented at the American Psychological Association (93rd, Los Angeles, CA). Retrieved from ERIC database. (ED269649)
- Ansdell, G., & Pavlicevic, M. (2001). *Beginning research in the arts therapies: Practical guide*. London, UK: Jessica Kingsley. Retrieved from <http://www.questia.com>
- American Psychological Association. (2009). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.
- Batagiannis, S. C. (2011). Promise and possibility for aspiring principals: An emerging leadership identity through learning to do action research. *Qualitative Report*, 16(5), 1304-1329.
- Beisser, S. R., & Connor, K. (2004). Impact of teaching an action research course. *Academic Exchange Quarterly*, 8(3), 80+. Retrieved from <http://www.questia.com>
- Dahir, C. A., & Stone, C. B. (2003). Accountability: A M.E.A.S.U.R.E. of the impact school counselors have on student achievement. *Professional School Counseling*, 6, 214-221.
- Granello, P. F., & Granello, D. G. (1998). Teaching counseling students to use outcome research. *Counselor Education and Supervision*, 37(4).
- Levesque, R. (2007). *SPSS programming and data management: A guide for SPSS and SAS users* (4th ed.). Chicago, IL: SPSS Inc.
- Mason, E. C. M., & Uwah, C. (2007). An eight-step action research model for school counselors. *Georgia School Counselors Association Journal*, 14, 1-5.
- Mills, G. E. (2010). *Action research: A guide for the teacher researcher*. Upper Saddle River, NJ: Merrill.
- Riley, T., & Motzen, R. (2011). Learning by doing: Action research to evaluate provision for gifted and talented students. *Kairanranga*, 12(1), 23-30. Retrieved from ERIC database.
- Rowell, L. L. (2006). Action research and school counseling: Closing the gap between research and practice. *Professional School Counseling*, 9(5), 376-384. Retrieved from <http://www.questia.com>
- Sprenkle, D. H., & Piercy, F. P. (2005). Chapter 1: Pluralism, diversity, and sophistication in family therapy research. In D. H. Sprenkle & F. P. Piercy (Eds.), *Research methods in family therapy* (pp. 3-18). New York, NY: Guilford Press. Retrieved from <http://www.questia.com>

Turner, S. A. (2010). Teaching research to teachers: A self-study course of design, student outcomes, and instructor learning. *Journal of the Scholarship of Teaching and Learning*, 10(2), 60-77. Retrieved from ERIC database.

*Note: This paper is part of the annual VISTAS project sponsored by the American Counseling Association. Find more information on the project at: [http://counselingoutfitters.com/vistas/VISTAS\\_Home.htm](http://counselingoutfitters.com/vistas/VISTAS_Home.htm)*