

## **On the Purpose and Process of Research**

### **Marsha's Story**

Marsha is a college student participating in an ensemble. Her experiences in the choir have included informal observation of the conductor, and she reasons that the behaviors she has seen must be requisite for an ensemble director. Since the conductor is successful, Marsha believes that if she imitates his behaviors, she will achieve a similar level of success in her future teaching experiences.

Someday Marsha may attain success as a conductor, but in order to achieve that success, it is likely that she will need to go far beyond her general and informal observations regarding the teaching process. In her music education classes, Marsha has had a brief introduction to research on teaching and conducting. She is beginning to understand that in doing research, the researcher develops an attitude of careful, analytical thought and measured, specific observation about events and people.

The research process necessitates a deliberate consideration of myriad and specific issues beyond surface observations in the effort to understand the social interactions, the musical relationships, and the teaching and learning processes used in music classrooms and ensembles. Research as systematic inquiry requires gathering data, as objectively as possible, and interpreting it, following specified procedures. Marsha discovers that she must slow down and resist the temptation to reach conclusions quickly. She learns that she must avoid looking for convenient and simplistic answers to complex questions.

From one of her professors, Marsha hears about the Journal of Research in Music Education. She decides that as a Collegiate MENC member and a future music educator, she should subscribe to this professional research journal. Despite her initial enthusiasm and her best intentions, when she begins to receive the journal, she finds that she is unable to comprehend much of the material, particularly some of the quantitative results sections that include various statistical symbols. She also discovers that although some research articles attempt to address "real-world" problems, they often conclude with more questions than answers. Marsha sees that research does not seem to affect the practices of teachers until after a large number of studies are conducted. It is not surprising that she soon abandons her commendable effort and allows her subscription to lapse.

Obviously, Marsha requires more than surface knowledge of the research process. To participate more personally and to understand the findings generated through research, she needs greater familiarity with and specific knowledge about the research process and its arcane vocabulary. This is not a simple task for Marsha or for anyone else. Is it worth the effort? Can Marsha really benefit from increased participation in research? Would the research process help her, for example, to expand her critical thinking and problem-solving skills? Perhaps just as important, would music education benefit by her involvement?

The process of research is criticized by some who are seeking the "right answer" for classroom problems. Research does not and cannot provide "works every time" solutions to situations music teachers encounter, nor can any other resource ensure such answers.

This does not mean that the desire for practical answers is not understandable or that the pursuit of them is not worthwhile.

Because research and its conclusions are limited, specific, and upgraded continuously (yes, even historical research is subject to revisions!), answers are not simple or fixed. But there is widespread evidence of research offering solutions to problems. Systematic inquiry obligates investigators to change their views as new data are received and ideas or hypotheses tested. While certainty cannot be achieved through research (i.e., results are never proven), the gradual accumulation of information and theoretical interpretations leads to new ideas, assessments, evaluations, and recommendations. In turn, these lead to yet more new ideas and designs, and sometimes they eventually lead to implementation of new teaching strategies that will improve the instructional process.

Inquiry is discovery, and in many ways, teaching is also discovery. Many classroom teachers already know that engaging students in the process of discovery is a most effective strategy. This appears to be true for teachers themselves, as well. The assimilation of new information and its subsequent application to individual or group teaching, learning, and performing experiences is common to the best teaching and research. Research requires and develops the tools of questioning, critical thinking, and problem solving. Many music research projects provide a convenient forum for developing skills required for teamwork, such as flexibility, as well as for developing musical skills and oral and written communication skills. Most of these are the skills that employers in all areas say they are seeking.

If researchers in music education are to pursue an agenda that is relevant to music teachers, then teachers must help by providing questions and lines of inquiry. Through study of the research process, teachers can learn to make transfers from research findings and gain insights and broader views of what they are attempting to do. Teachers engaged in analytical thinking will seek out research that is relevant to their own teaching situations and make appropriate transfers, and further, it is hoped, will provide researchers with suggestions for future investigation. Madsen<sup>8</sup> found that every teacher is capable of making transfers and generalizing from research results to his or her own situation. Elementary teachers can learn from results found in middle schools. Band directors can benefit from research in children's singing.

Such efforts by teachers should not go unnoticed. They should be accompanied by reciprocal efforts of researchers to interpret and apply the results of research where they may be relevant.<sup>9</sup> Just this sort of effort was made by a team of music educators in the MENC publication *What Works: Instructional Strategies for Music Education*.<sup>10</sup> The team members "examined and interpreted research literature having significant conclusions for application in music instruction." The instructional strategies that accompany the research citations in *What Works* are offered with the caveat that the reader "study carefully more than a few entries before 'lifting a few' procedures that seem to be 'good ideas.'"

After learning more about the research process from her music education professor, our friend Marsha has been inspired once again. She decides to attend a research poster session at her state music educators meeting. She observes that some researchers are genuinely enthusiastic, while others are more guarded about their findings. Although

none of the studies precisely address her situation, she notes also that some studies seem very practical and directly address classroom instruction, while others seem more theoretical.

At the poster session, Marsha also overhears several comments, such as "Oh, I already knew that" and "Oh, that can't be right," or "That's not what I think." Marsha realizes that the persons making such comments need to be better informed about research and the research process. The discovery of the obvious is one aspect of research that may make it seem uninteresting to some. By now, Marsha has learned that researchers sometimes discover that the obvious answer is not always the right answer, and that what seems to be commonsense is frequently found to be invalid.

Marsha also overhears another kind of comment: "What good is it?" She notices that this type of reaction seems to occur when a given fact (relationship or phenomenon) does not seem to be related to anything else we know or care about. Of course, research must start somewhere, and results from a series of studies on ocarinas, for example, might someday lead to a beneficial integration of these findings with instruction regarding more common instruments. If no application of findings to real life problems can be found, there are some who dismiss the findings as unimportant.

Why do researchers study such esoteric topics? First, new knowledge, whether useless or useful by practical criteria, provides aesthetic pleasure to many people in the same sense that a symphony or a painting offers pleasure to others. In fact, this intellectual curiosity and the satisfaction of discovery are important motivations for music researchers.<sup>11</sup> Second, history tells us that we cannot judge the ultimate usefulness of a discovery at the time it occurs. For example, Faraday, in the field of electricity, and Mendel, in the field of genetics--to name only two of many researchers who have profoundly affected our lives[em]were not concerned with the usefulness of their work. In thinking about the comments she hears, Marsha cannot help but make a transfer to the numerous times she has been asked by her parents or friends about the usefulness of a major in music.

Socrates said that the unexamined life is not worth living. Yet he understood that to make our own choices, to live life our own way, we must understand ourselves and the world around us. We must be aware of the opportunities we have. Research in history, philosophy, science, and all lines of inquiry shows us how people have lived and dreamed about living. It points out the consequences of making certain kinds of choices. It provides models for us for conducting and understanding our own lives and improving the lives of others. For the music educator, and even for future music educators like Marsha, research offers a special opportunity to improve music teaching and learning, giving students the lifelong benefits of a music education.