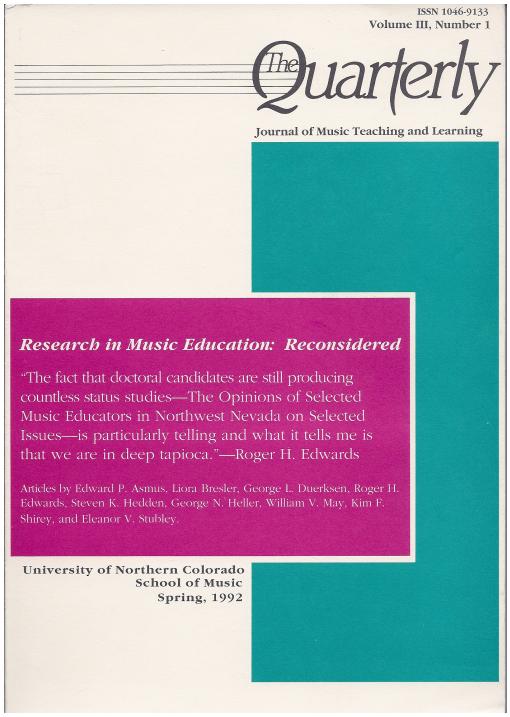

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It is with pleasure that we inaugurate the reprint of the entire seven volumes of The Quarterly Journal of Music Teaching and Learning. *The journal began in 1990 as* The Quarterly. *In 1992, with volume 3, the name changed to* The Quarterly Journal of Music Teaching and Learning *and continued until 1997. The journal contained articles on issues that were timely when they appeared and are now important for their historical relevance. For many authors, it was their first major publication.* Visions of Research in Music Education *will publish facsimiles of each issue as it originally appeared. Each article will be a separate pdf file. Jason D. Vodicka has accepted my invitation to serve as guest editor for the reprint project and will compose a new editorial to introduce each volume. Chad Keilman is the production manager. I express deepest thanks to Richard Colwell for granting VRME permission to re-publish* The Quarterly *in online format. He has graciously prepared an introduction to the reprint series.*

Research: Going From Incredible To Credible

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Research is not viewed as being in the mainstream of either music or music education. Most musicians and music teachers have little interest in what music researchers do, how they do it, or the conclusions that they reach. Ironically, when the effects of research do reach the music profession, they usually come from a different field. Rideout's (1990) article in a previous issue of *The Quarterly Journal of Music Teaching and Learning* pointed out a pertinent example. He suggested that the research having the greatest impact on the future of music education was that being done in electronic keyboarding. And that's almost surely correct.

> "I have this fantasy in which some Horowitz type stands up after the A^b *Polonaise* and says he owes his technical expertise to some music educator's recently published study of psychomotor skill transfer."

Musicians show a strange mix of the conservative and the revolutionary. They have a strong tendency to protect and preserve old masters and old methods. Music teachers, whether in school or studio, are thus inclined to carry on their jobs as similar persons have done for years. On the other hand, when changes do occur in the arts they tend to be anything but slow and conservative. Change is the radical work of the ingenious iconoclast who sees the medium in a new way. Change is neither analytic, deliberative, nor even rational. The change metaphor of the arts is not a theory of plate tectonics; it is a sudden slippage of the San Andreas fault. Musical change is the Eroica, Tristan, and *Sacre du Printemps.*

Considering musicians in this light makes understandable the profession's resistance to research as a change agent: While the purveyors of research strive for the rational and measured pace of change found in the hard sciences, the supposed consumers, like frogs, have reveled in long periods of quiescence followed by frenetic leaps.

Music researchers have approached the indifference of practitioners as a problem in educating them. This strategy is no longer appropriate in the 1990s, however. Music teachers are a changing breed. Today's beginning teacher has grown up in a world of Yamaha keyboards, digitized sound, and many other evidences of a new evolving relationship between the arts and sciences. This rapprochement is slow but inexorable.

The number of MENC conventioneers who pass up research sessions to listen to their third band concert of the day remains large. As the science-arts rapprochement develops, music researchers are losing credibility by continuing to portray themselves as beleaguered, rational voices in a tradition-bound wilderness. The image isn't convincing, and thus there is cause to ponder an unpleasant proposition: Research in music simply hasn't produced enough useful informa-

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tion to merit the attention of practitioners.

The best overall measure of the direction and potency of music education's research efforts is still the latest *Dissertation Abstracts.* After all, dissertations and theses are the basis of considerable of the published research in music education (Leblanc & McCrary, 1990). More importantly, the topics being investigated by graduate students reflect what doctoral advisors and doctoral committees are accepting as *being* research. If this thesis about the representativeness of the *Dissertation Abstracts* is even half correct, most of what music education continues to hold up to the field as research has all the impact and urgency of a twenty-third consecutive hour of listening to *Scheherazade.* The fact that doctoral candidates are still producing countless status studies—"The Opinions of Selected Music Educators in Northwest Nevada on Selected Issues"—is particularly telling, and what it tells me is that we are in deep tapioca. As Naisbitt (1982) said, "We are drowning in information but starved for knowledge" (p. 29). Music education is continuing to promote this unpleasant megatrend. Sloboda (1985) was probably being charitable in saying that,

> "...if one had to rely on research in music education it would be hard to find a consistent and universally applicable set of findings" (p. 231).

In fairness, let us grant that the word "music" could be omitted from Sloboda's statement without too much loss of truth. Hard, valid findings are scarce in all the realms of education. But music education does seem to demonstrate a preternatural devotion to trivial research. What prevents more fellow researchers from speaking out on this issue is that so many of the studies conducted are so inconsequential that no one really cares enough to critique them.

If researchers are ever to make a serious impact on the teaching of music, they must strive for an unprecedented level of credibility with the music and music education communities. They must develop useful products that convince practitioners that their form of "knowing" can also contribute to the arts.

Some have suggested that the failure of music education research to have a major impact on the profession stems from its researchers having less training in research methodology than do psychology majors or even other educators. This is a trivial part of the problem at best. One does not achieve credibility by simply demonstrating competence or using *tour de force* quantitative methodology.

Valid suggestions for cleaning up music education's research act have been put forth before. Petzold (1964) was perceptively on this case years ago when he expressed alarm about the epidemiology of bad research:

> "... it is easy to see how a single survey study, often selected in desperation, may produce an alarming number of similar offspring over a period of years. This understandable but unfortunate tendency to perpetuate the commonplace can be eliminated, or significantly inhibited, if the faculty member himself is able to find the time, energy, interest and support to continue to engage in significant research activity that is so essential to his professional growth" (p. 39).

While Petzold's counsel is valid and as important today as it was when he wrote it, there are other steps that can be undertaken to establish a new level of credibility. The starting point is to narrow the scope of research and do a good job on what is done. Let's begin by trying to get a deeper understanding of what music educators do best, teaching performance.

Performance

Performance is "in." The educational literature is awash with performance assessment articles. Educators are finally recognizing that most kids don't get turned on by propositional knowledge. Remember that one of the groups that the Mikado didn't have much use for was "Children who are up on dates and floor you with them flat."[1] But at least educators have finally concluded that *doing* is as important as *knowing* and maybe even more so. Teachers are assembling portfolios. Program evaluators are assessing them instead of just looking at test results. This means that mainstream educators are now catching up with assessment practices

1. The Mikado should have added to his "little list" the nineteenth-century adults who taught kids that this was significant learning.

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that teachers of the arts were following 50 years ago, including music's own aural portfolios (called "recitals" and "concerts").

With the educational winds wafting in the right direction, music education should take advantage of the current wave of progressive thinking to establish itself on the forefront of the performance movement. Music educators now have a saleable and educationally acceptable rationale for claiming that even a bad kazoo band in performance shows more real learning than a group of second graders reciting EGBDF in unison. Public school music teachers can bring together a diverse cross section of the school population and put on an impressive spring concert. If social studies teachers were required produce an accurate re-enactment of the battle of Shiloh with the same kids, most would head for the door. Music education is good at teaching kids to *do.*

A second advantage of focusing on performance would be that music research might get more attention from the professionals who make a living from performance. I have this fantasy in which some Horowitz type stands up after the A^b *Polonaise* and says he owes his technical expertise to some music educator's recently published study of psychomotor skill transfer. This may remain fantasy for a while, but note that such a trend is surfacing among athletes. Some are starting to credit their successes to scientifically devised training programs rather than to "natural talent." Performance studies are on the road to credibility.

Basic Research

One of the most invidious misconceptions of educational research is that folksy notion that unless one does "applied" research, the results fail to have significance or value to the profession. This has led to numerous studies in which doctoral students devise a course of study and, after a semester of "treatment," analyze pre-post student data to determine whether the course has been successful.

One can only be thankful that persons with this penchant for applied research weren't given the job of finding a cure for AIDS. They wouldn't waste all that time trying to understand the underlying condition. "Put away that microscope! We want something that will cure this thing now." They'd have dreamed up endless concoctions of materials from the kitchen cabinet, and every time some experimental group lived "significantly" longer than the controls, we'd have a "breakthrough." And except for the grossest of luck, 20 years later these "scientists" would still be mixing up new batches of "treatment" and telling the public, "Any day now!" while thousands continued to die.

The courses designed for many music studies have had similar shotgun approaches. Educational "treatments" are much more complex than we give them credit for being, particularly when dealing with objectives above the knowledge level. An activity, or even each sentence that a teacher utters, is a form of mini-treatment. It is based on one or more assumptions—usually unstated—of how people learn or how their values are changed.

The experiments educators do are usually big-bang maxi-treatments, however. But what if two component activities of a course are interactive? That is, either activity, by itself, can be beneficial, but in tandem they confuse students. Or what if A works, but B doesn't? Nothing unlikely about that. If I devise two activities to teach something and one of them works, I'm elated.

When numerous activities are combined into what is assumed to be a cohesive "treatment," the researcher has already made an awful lot of assumptions. Until shorter term studies examine the effect of the individual components, deriving meaning from the outcomes of big-bang experiments is rather speculative.

The validity of the experiments used to

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study these treatments is often even more questionable. Having committed the sin of assuming all the mini-treatments to be additive and noninteractive, the big treatment is then pitted against some kind of "control" group. This creates horse races we'd all love to bet on. We're usually told very little about the "control" group. Although it is never stated, it's probable that the other course is not being taught by a rival doctoral candidate with the same motivation to win the race. We might also suspect that the control group is given little information on where the finish line is; most likely they don't even know there's a race going on. When one jockey is racing and using the whip while the other thinks he's out on his usual Wednesday afternoon workout, it isn't much of a race.

These analogies could be continued over each of the standard sources of internal and external validity found in Campbell and Stanley and their progeny. By the time all the potential validity problems of these studies have been considered, one cannot help but be awed by their numerous assumptions about the unbiased nature of nondesign variables. Under these conditions, it's difficult to get excited when the inferential statistics reveal who "won."

Another drawback of these macro-treatments is that they are typically implemented within a jumble of other "treatments" to which the student is simultaneously being subjected. Suppose the experimenter spends three hours per week teaching an experimental course directed toward attitude formation in music. Meanwhile, the students are being subjected to countless other organized programs at school, and, more importantly, are having their musical values influenced much more potently by an omnipresent rock culture—particularly as mediated and transmitted by their peers—for God-knows-how-many hours per week. On examining the results of diffuse treatment experiments like this, I get an image of a mouse under the stage at Avery Fisher Hall who beats his foot to the music and thinks that the Philharmonic is following him.

It is clear that something went wrong on the road from split-plot experiments that studied how beans were affected by various fertilizers to the gratuitous use of similar "experimental designs" to determine the effect of an appreciation course. If the farmers held square dances on some of Fisher's split plots while his experiments were in progress, he might have at least considered this as another source of systematic variance. But many educational researchers seem to have no problem with considering similar phenomena as just another piece of the error inherent in experiments.

How much more enlightened teachers could be about musical learning if music education had listened to Petzold (1964) 30 years ago and taken a more basic, laboratory approach to musical experimentation:

> ....we should give greater emphasis to that kind of activity called "basic research" since this is one of the most effective and appropriate sources of information relating to fundamental problems in music education" (p. 40).

By now there might be enough basic knowledge to sit down and sensibly design better courses of study. Music education has wasted its time by puttering and stabbing at solutions without even clearly knowing what the dependent variable looks like, much less having any clear research base on which to predict what might affect it and how.

What should music educators study in this performance-oriented, laboratory-research format? At least two fields will be immediately profitable. First is the area of psychomotor skill development. Music education's inattention to the literature of this field is disgraceful. This should not be taken to imply that the psychomotor folks are sitting on a repository of knowledge which will allow us to revamp performance instruction overnight. They're not. In fact, music education re-

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searchers have a few things to teach them in some areas. But the experimental psychologists who study motor learning do have a significant research literature with thought-provoking parallels to performance instruction and a few interesting findings.

Some examples of relevant psychomotor transfer research appear in "Transfer and Performance Instruction" (Edwards, 1987). Many of these studies should be replicated or expanded in musical settings. They require methodological care, but only the simplest forms of statistical inference.

Do music education researchers have the expertise and courage to invade the research domains of their nonmusic colleagues? They should, but few have even tried. How many persons would fit this description?

1. They work for, or are a student at, the music department of an institution large enough to have to have a psychology department.
2. They have an interest in instrumental performance instruction as either an instrumental student, a performance instructor, or a music education researcher.
3. They have no idea who, if anyone, in the psychology department has an interest and/or background in psychomotor skill development.

Many folks who meet the first two criteria are likely to find themselves harpooned on the third prong of this trident.

For those graduate students who meet these criteria and would like to be ground breakers in their doctoral research, here is a challenge:

Go over to the library and find *Psychological Abstracts*. Use it to find someone in the psychology department who has published in the area of psychomotor skill development. (Alternatively, just go over to the psychology department and ask around.) You discover that Professor Schemata has published a few papers in the *Journal of Psychomotor Skills*. You arrange a meeting with her or, if sufficiently motivated, just barge in during office hour. Tell her that you're a graduate music student who wants to study some psychomotor transfer issues in performance instruction.

I'm betting that Professor Schemata will be overjoyed to see you. After you outline your desire to verify the efficacy of certain practice strategies, she will see that this could be a mutually profitable association. "After all," she might reflect, "here is someone who really *cares* about repeated trials in the development of a small motor skill"[2] Schemata will take you on a tour of the psychomotor skills laboratory. She will probably take you to lunch a few times and almost beg to be on your doctoral committee.

Next student, please.

There is an important area in which basic research can be brought to bear. Some kids solve spatial relations problems very effectively, but may be able to say little about the process used to solve a problem. They visualize the situation and when the "How many blocks...?" question is posed to them, all they have to do is count the blocks that they "see." When an adult asks them to describe the analytical strategy they used, they may try to verbalize the process, but at heart they just think they're being asked another dumb question that only a big person could devise.

Many youngsters seem to have a similar gift for music. At age 4, they can memorize a song right down to its subtle phrasings without being told how to sing, memorize, or what "phrasing" means. Older youngsters may pick up a guitar and in no time learn to invoke psychomotor schemas of which they have only the vaguest understanding. Or they seem to have an instinctive sense of harmony or phrasing. As Cziko (1988) said, musicians are good at implicit learning. They have not been taught, but simply apply

2. Schemata's been trying to get her own graduate students interested for years, but they spend their time listening to loud music in one of those places in Campus Town. They wish they were writing their dissertations in a more *meaningful* area—like music.

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three attributes that Sloboda (1985) suggested:

1. a shared set of primitive capacities;
2. a shared set of experiences; and
3. a rapidly developing cognitive system.

Expanding on what Sloboda termed "enculturation," Cziko characterized implicit learning as "...initially unconscious, automatic, and tacit." This is placed in opposition to explicit learning which "begins with verbal instructions and conscious attempts by the learner to implement these instructions." Implicit learning invades a land where even metacognition fails to provide good answers for all questions about how students learn. Implicit learning is obvious to musicians and will surely become an expanding area of study in education. Here is another opportunity for music to take a leading role.

I'm sure that a scenario similar to that posed for psychomotor skills would take place if Professor Schemata specialized in language acquisition. Interestingly, language acquisition specialists are investigating the centrality of implicit learning (Cziko, 1988). In the meantime, musicians watch it happen every day, look amazed, and try to correlate it with a Seashore battery.

Cziko not only speaks to the relatedness of music and language, but also implicitly shows the willingness of outside scholars to bring their expertise to bear in helping music educators get some refreshing new perspectives on instruction. When are we going to desegregate research and make academic cross-pollination a daily affair, not a decennial event? Good basic research with interdisciplinary cooperation is on the road to credibility.

The Right Stuff

Graduate school can be—and often is—a frustrating experience. It can be particularly frustrating for the person who has taken a teaching position right after getting a bachelor's degree. Overnight one can go from being Stan to being Mr. Fettucine with 100 pairs of frightened little eyes waiting to be told what to do next. Procedurally and/or musically, Stan has the sudden feeling of becoming a demigod. His word is law. "Fifth graders, we want you to look your best tonight. Black shoes and socks." And Stan will get black shoes and socks because the kids like him. He's a nice guy and makes music exciting. He could have said, "One green sock and one purple one" and gotten it, along with big smiles.

Stan does a M.Ed. over a few summers, and when there's an opening in the high school, he moves up on the basis of the good reputation he's earned in the district. The older students may not be as compliant as the fifth graders, but working with them presents opportunities for even greater things musically. And he does those things.

Then comes the time of the decision. Stan's in his thirties. He's done an excellent job. He knows it and thinks he has something to share with the world. And the best way for him to go beyond being the highly respected instrumental music teacher at Adams High is to become a university Professor.[3] Stan could then affect the musical lives of not only his own students but also the students of his students and so on. The Grandteacher. This could be a new kind of fulfillment! Should Stan stay in the rewarding world of musical adventure with the teen set or take that big plunge, the Doctorate?

Stan goes double-or-nothing on fulfillment. He returns to campus and enters the strange world of the Ph.D. program. Some of it is really great. He can understand Dr. Allegro's advanced band methods seminar and see its relevance to his previous life. The Philosophy of Education courses are iffy, but if he is

3. In his Master's program, Stan quickly learned that Professor is always capitalized whether followed by a proper name or not.

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to be a Doctor of Philosophy it seems fair to be asked to take one course with that word in the title.

His first statistics course is a different matter. One of the characteristics the kids had liked most about Stan was his easygoing, laid-back style. Kids appreciated Stan because he was the only literate adult they knew who was less mathematical than they were; he'd once figured the size of the clarinet section by adding the 1sts, 2nds and 3rds and gotten a number larger than the entire freshman class. But they somehow also realized that it was Stan's preoccupation with intangibles that made them the best band in the state.

If the kids had investigated further, they would have found that Stan had dropped algebra in high school because the homework would have cut into his trombone practice time. At least that was what Stan said. The teacher felt that his decision might also have been affected by the fact that Stan's highest test score in the first month had been 23 out of a possible 108.

No, Stan is not a born quantifier. In fact, no research discipline seems to have much to do with the place that Stan has come from or where he thinks he's headed in life. He feels out of place and vaguely like the fifth graders he was teaching ten years ago. He feels old enough to decide what's relevant for his life but now *he's* the one wearing purple and green socks just because Professor Anova said so. And Stan's not smiling.

Granted, Stan will get something out of a few research courses. He will get some vocabulary and some insight into methodological thinking. He may be able to define logical positivism and even gain some grudging respect for it. If he had the right motivation, Stan might be able to do a fair historical study, an interesting piece of musicological work, or one of those rare qualitative studies that go beyond speculative rumination and give us some important insight into musical learning. But Stan does not really care much about the frontiers of knowledge, so the odds greatly favor another fate for him. Under the guise of at least learning to *appreciate* research and gain entitlement to the name Dr. Fettucine, Stan will endure a rite of passage. He will become the world's leading authority on the attitudes of music educators in northern Nevada.

This will not really make Stan appreciate research. In fact, it is more likely to make him suspicious of it; he will sense that he hasn't really done anything significant and fear that most of his Professors may have achieved their status through the same ruse. What Stan will go through will be similar to a fraternity initiation, but it will last a lot longer. Stan knows that the Alpha (=.05) House is not the place for him. And to do the kind of research that is needed to improve practices and gain credibility for the profession, Stan is not right for us. Stan doesn't have the right stuff.

Stan is not alone. How many times have you heard an ABD Stan or Mary, Stan's gender-stereotyped choral counterpart, say "I just want to finish and get out" (FAGO). Wouldn't it be more appropriate if doctoral programs had the flexibility to meet Stan's and Mary's personal development needs without the pretext that these candidates are somehow going to become researchers?

Personally, I like the Stans and Marys of music education. They are the backbone of the profession and I would love to see us treat them as what they are: good musicians with a particular talent for working with kids. Many could do a great job showing others how to do the same. But those who believe in research and its potential to improve music instruction shouldn't accept the anti-research sentiment that is inherent in FAGO

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statements. As a matter of fact, doctoral advisors should have the conviction to aid graduate students of that persuasion by getting them out of the program by 8 P.M. of the day that they make the statement. If their only real interest is performance—from either end of the baton—let them find another program. They need an institution that offers a DMA program in music education.

I'm not giving up on all the Stans and Marys as potential Ph.Ds. They should have the opportunity to assess their research potential through an appropriate research survey course before they commit themselves to a particular program. But what they shouldn't do is befoul already troubled waters with more status studies or ill-designed pseudo-experimental garbage. The odds are that Stan and Mary are probably not going to be researchers except as is necessary to meet some university publications requirement. They are mainly performance teachers and teachers of performance teachers, and they really do it pretty well.

If a big breakthrough in performance instruction methodology occurs, and definitive research shows that there are better ways to teach performance, Stan and Mary will get the word. It may not come directly from their anxious perusals of the *Journal of Research in Music Education*, but they'll find out.

We need to get rid of this silly notion that everyone in music and music education at the college level must have a Ph.D., with its supposed attendant research credentials. What Stan and Mary are proficient at is shaping performance. Let's not burden them with quantitative methods courses unless they feel driven in that direction. Let's leave the Ph.D. to those with some real desire to push back the frontiers of knowledge.

Clearly, accepting this philosophy of what a Ph.D. in music education should mean will require corresponding adjustments to be made in higher education. The majority of college music education positions require a Ph.D. (Cutietta, 1987) and expect the "scholarly activity of faculty members" to be a part of a position. This is a phrase upon which some troubles ride, and the National Association of Schools of Music suggests that "scholarly activity" includes "composition, performance, and the conduct of research" (NASM, 1983). And what if someone does none of these well? Either the meaning of scholarly activity must be broadened to allow for "exemplary teaching," or Stan should shine up the old 'bone or sketch out his first symphony. Without one of these changes, maybe Stan may just have to learn to enjoy Adams High. We should not want Stan to be a research "scholar" any more than we would have open-heart surgery done by a FAGO MD with a similar lack of dedication to cardiology. Ph.D. programs that consistently produce graduates with the right stuff represent another step on the road to credibility.

The Big Questions

There's one particular family of studies that music education needs to do now and to do right. The experimental question is: In the long run, does music education, as currently practiced, make any difference in people's lives? After all, music survived the eighteenth century without MENC. People listened and enjoyed. They learned to sing and play instruments and some even composed. When people felt the need for performance instruction, they apparently found it. Does music education really make a difference?

From an experimentalist standpoint, it's amusing to listen to the reactions of arts educators when they learn that a school district has gone on a budget austerity program and has eliminated arts education from the curriculum. Instead of thinking of this as an opportunity to demonstrate that aesthetic values deteriorate in such circumstances, the reaction from the arts education community is either highbrow rhetoric (the Barbarians are at the

gates), or—reversing the spin—telling the lowbrows that half-time at local high school football games will become a 15-minute silent meditation. A subtle hint that the resulting lack of school spirit might contribute to a losing season completes their aesthetic conversion.[4]

It may be that these "ultimate" studies of the value of music teaching are eschewed because too many people fear the result. It's possible that 90 percent of what music educators currently do has no long-term impact at all. It would be like the family my uncle claimed to know who spent $1,000 to have their genealogy traced and $2,000 to have it covered up. But in this case, music educators are better off knowing than not knowing.

It is critical that "ultimate" studies be done right. Consider a few pitfalls to be avoided: for example, do not send out beautiful, smiling music education nymphs saying, "I'm from the Music Teachers Association and we want to know how our dedicated members have enhanced your life." The questions of real interest must be embedded in what appears to be a general study of musical tastes as might be conducted by a large record company. Not a hint that anyone has a vested interest in the response to questions like "Where do you think you learned to enjoy music?" or "What music classes did you take when you were in school?" Marketing firms have learned the hard way that getting valid data from such interview situations can be devilishly difficult. Studies of this nature are difficult to do well, but must be undertaken to bring credibility to all of music education.

Epilogue

Research in the teaching of music is at a crossroads. If we don't learn to understand music instruction through competent, credible research, someone else is going to do it for us. Sadly, they will have completely commercial motives in mind, program a robot with their results, and put many teachers out of business. Robotic teaching may happen someday regardless, but wouldn't it be more fitting if music educators were the ones who had done the programming?

4. Those who see the potential music-related experiment implied by this situation should recall the problems inherent in analyzing the scores of sporting events which follow Poisson distributions rather than normal distributions.

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