A Model for Training Science-Based Practitioners in Behavior Analysis

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Abstract

Our goal should not be to train scientist-practitioners but rather to train science-based practitioners, that is practitioners who base their practice on scientifically solid, applied research; and when caught in a tight spot where there is no *Journal of Applied Behavior Analysis* (JABA) research on which to depend, they base their practice on basic, scientific research, that is the *Journal of the Experimental Analysis of Behavior* (JEAB) or more realistically B. F. Skinner's pre-JEAB research.

Keywords Training practitioners · Research vs. practice · Science-based practitioner

The Problem

Data from *Journal of Applied Behavior Analysis*'s (JABA) second decade: Only 26 people published five or more articles in JABA—one article every 2 years. Of the 784 applied behavior analysts at the doctoral level in the Association for Behavior Analysis, only 2% were frequent publishers in JABA. At least 50% of the top 26 authors (13 of 26) studied with people who themselves were by the top 2% (Malott, 1992a, 1992b).

The Solution

Forget about wasting your time and your students' time training them to be researchers, unless you're part of that exclusive 2%, the frequent publishers in JABA. (OK, I know there are other journals of value, but...) Instead, explicitly train your students to be practitioners. As Joe Layng Facebooked, "This is the model for training MDs. Why would it be controversial?" (One of the few times I've agreed with the medical model.)

The Myth

But can't we do both—train our students to be scientist and practitioner? No! Scientist-practitioner is an oxymoron. JABA researchers are not practitioners. The researcher's goal is to understand the fundamental nature of the kids' problems, not to help a particular kid (e.g., "Don't know if the improvement maintained, as the funding only allowed him to be in our medical center for six weeks," i.e., "I don't really give a crap; I got my publication and my grant renewal and my promotion and tenure. To heck with the guinea-pig kid.")

Practitioner: But this is a kid with autism, not a guinea pig. Our goal, our purpose in life, is to help this particular kid, and not even as a way to get paid by the kid's parents or the insurance companies, let alone as a guinea pig for our research.

Mild example 1: Major Medical Research Institute: Ethics Training Seminar: Each new cancer patient who (that) comes in; first thought—to which experimental treatment group do we assign this subject? Not what can we do to best help this person (confidential source)? Is the patient a "who" or a "that," a human being or a guinea pig?

Mild example 2: College professor (usually intro psych): "All students are required to be subjects in my experiment. Reason: It will help them understand experimental research, because we will debrief them for two minutes at the end of their one-hour session. Or if requiring participation sounds too conflict of interest, maybe I'll just give them 10 bonus points for voluntarily participating? Would that get me out of my conflict-of-interest, ethical dilemma?" No.

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The ethicists of behavior analysis are now insisting that we avoid dual roles, because of conflicts of interest we're too weak to negotiate. And this is one instance where I do agree with our ethicists; here's a conflict of interest that few of us have the strength to negotiate—the dual roles of scientist and practitioner or even scientist and professor.

A Science-Based Practitioner View

Our goal should not be to train scientist-practitioners but rather to train science-based practitioners (i.e., practitioners who base their practice on scientifically solid applied research; and when caught in a tight spot, where there's no JABA research on which to depend, they base their practice on basic, scientific research, i.e., JEAB or more realistically Skinner's pre-JEAB research; or, if necessary, extrapolate from their considerable understanding of the concepts and principles of behavior analysis).

But science-based practitioners don't need training as researchers, so that they can evaluate the scientific validity of the research articles they read. They just need to know which scientifically respectable journals to read, as the articles published in those journals received much more high-powered, critical scrutiny than those practitioners themselves will ever be able to provide, no matter how many research-based MA theses they have done. (Yes, I understand that JABA's reviewers may screw up once in a while.)

And this is not an argument against basic and applied research, against JEAB and JABA. It's an argument against expecting that practitioners can or should conduct their practice in a way that will contribute to well-controlled studies that meet JABA's standards.

Also no. 1. This is not an argument against teaching the principles of behavior. In fact, personally, I may go a little overboard in trying to make sure my students have mastered subtle nuances of the principles of behavior that many, if not most, experimental analysts, themselves, have not even thought about.

Also no. 2. Don't get me wrong; of course it's a real thrill to publish an article in JEAB or JABA. I know, I got one in JEAB, way, way back in the day (Malott & Cumming, 1966) and one in JABA only way back in the day (Malott, 1992a), even though that article was about why most of us in the lower 98% should not orient our lives around trying to publish an article in JABA. Just saying: prestigious publishing is not be the model on which we should base our practitioner training.

Also no. 3. I'm not saying the scientist-practitioner model doesn't produce great practitioners too; just humbly suggesting that the scientist-training component may contribute much less to our practitioners and to our field than

most PhDs think. But because of pre-PhD phatalism, I'd really be shocked, if having read my rant, you PhDs will be so convinced that you'll now radically remodel your scientist-practitioner training programs. (In other words, the values, beliefs, rules we've learned by the time we get our PhDs are so well ingrained that they're rarely modified by any subsequent experiences or data, not even by a carefully honed article such as this.)

And, for peer-reviewed, scientific proof that there's a problem, check out Sinclair Lewis's classic novel *Arrowsmith* (1925), still a timely discussion of the conflict between science and practice.

A Solution: Our Science-Based Practitioner Training Model

Not scientist-practitioner but rather a science-based practitioner.

Our Practitioner Project, Thesis, and Dissertation Goals

1. It must help the participating children and family.
2. It must help the participating classroom or center.
3. It must help get the practitioner a BA, MA, or PhD.
4. And a publication would be nice, but ain't crucial. (In other words, this is fourth on our list, not first.)

Difficulties with Practicing Our Science-Based Practitioner Preaching

But it ain't easy. My students and I have been struggling with our practitioner model for 10 years.

Even Skinner once rationalized that it was morally OK to require that developmentally disabled patients participate in behavior analyst research, though they would get no direct benefit of that research, because they were getting such great benefit from the general behavior-analytic efforts to help them, and that was the least they could do to show their gratitude (Skinner, 1999).

And even the Behavior Analysis Training System (BATS) crew finds it hard to avoid falling prey to that scientist-practitioner rationalization, in our own purely practitioner research. We really want to make it clear that our independent variable is affecting our dependent variable. So shouldn't we extend the length of our baseline just a little further? Or shouldn't we hold off on helping kid no. 2 for just a few weeks, so we can have a multiple baseline? Or, of course, we should do a reversal design, if at all possible, shouldn't we? Or shouldn't we use nonsense words and nonsense

pictures so that the benefits of our procedure are less likely to be confounded with what else is going on with the kid in the classroom and at home? And isn't it in the kid's own best interest that we are absolutely certain that the procedures we are using are actually helping him?

And our answer to our own questions is, "Come on now, clinical-judgment standards and JABA standards aren't the same. We should rely more on common sense." And though that's hard to do, the clock is really ticking with our cute little preschool kids. And our kids have only a few hours a day with us, and if we don't use those hours as effectively as possible to help each of them, we're being unethical practitioners, aren't we?

Oh yes, and my students and I also suffer from that Major Medical Research Institute Syndrome: When a new kid comes in, we hope he's a transition flopper because we're doing a dissertation on how to help kids stop flopping to the floor when they transition from the playroom back to the discrete-trial training table. Not I hope this kid isn't a flopper, because flopping will really interfere with him learning the skills he needs to have a good life. It's hard to stay pure. And aside from getting a publication or a completed dissertation, the fact that we have genuine intellectual curiosity about what's going on doesn't make it any easier to stay true to our practitioner model.

Goal No. 4. But a Publication Would Be Nice

We're coming up with a lot of cool stuff we'd like to share with other practitioners and even researchers, but publishing on Facebook doesn't quite seem to get it. So we're coming up with a cumulative case-study model; it's what we're trying to do at our West Campus Center, the center formerly known as "Croyden Avenue School." After we've completed one of our studies, usually with three kids, we try to implement the procedure classroom wide, collect data on it, find out where it is and isn't applicable, and continue accordingly, but we're still dropping the ball on that one more than we're successfully dribbling it. Not easy to stay on top of everything.

However, wouldn't it be cool if our field had an edited online journal, where practitioners could publish their rigorous case studies, and those studies could gradually be combined with other rigorous case studies evaluating the same procedure to come up with almost JABA levels of confidence, a cumulative-case-study model? And, just because the case studies don't necessarily have all the JABAesk controls doesn't mean the case studies can't have rigorous interobserver agreement (IOA) and treatment fidelity. And sort of related to that, one question we're starting to ask is, how much training does a behavioral technician need in order to effectively implement a new procedure? Just because it works when a PhD student implements it doesn't mean a college freshman will succeed.

The Behavior Analysis Training System

The BATS was designed to implement the practitioner training model. So now for some details about how we train behavior analysts to be science-based practitioners. First, why do I call it a "system," rather than a lab or a program? Because "lab" has too much of a researchy implication and also I like to use "system" as part of the description for everything I'm involved in.

BATS has three main levels, the BS, MA, and PhD. But it all centers on the MAs. I look at our undergrad program as a feeder for our MA program in BATS as well as other programs at WMU and around the country. And I look at our PhD students as Board Certified Behavior Analyst (BCBA) supervisors of the MAs. But I look at our MAs as our main product, as future BCBAs and occasionally as future BCBA-Ds. Incidentally, my latest fantasy is a high-school, dual-enrollment program to feed into the undergrad behavior analysis, BS, program at WMU.

MA Program

We usually admit 15 new MA students every year for our 2-year BATS program, about half from our undergrad program, usually well trained in behavior analysis and in working as behavioral techs. The other half are from other undergrad programs in the USA and usually one or two from another country. Few have the formal behavior analysis training of our undergrads, but many, though not all, have had a lot of behavioral tech training.

Incidentally, my favorite internationalist is Dr. Hironobu Matsuoka, MD, psychiatrist, who came from Japan with his wife and five little kids, just to get an MA in behavior analysis, even though he was already a big-time MD/psychiatrist! Like wow! He came because he had a hunch that there just might be something more to helping kids with behavioral problems than giving them drugs. And he's not the first psychiatrist to come to WMU to get a degree in behavior analysis, for that same reason.

Democratic Autocracy After 2 years, our MAs graduate, ready to become excellent BCBAs. But before I sign off on their final graduation papers, I require them to submit proof that they've paid for and applied to take the post-graduation Behavior Analysis Certification Board (BACB) exam. Why? Because otherwise, that sometimes falls through the cracks, at least for much longer than optimal.

Behavioral Boot Camp The BATS MAs start grad school with our Behavioral Boot Camp, in June, right after the Association for Behavior Analysis's (ABAI's) conference, so they can spend 3 h/day, 5 days/week for 10 weeks, including the fourth

of July, learning to become real men, before the regular grad program starts. (I'm disappointed when the fourth falls on a weekend.) And also so they can nail down the *principles of behavior*, many of its applications, rule-governed behavior, self-management, radical behaviorism, a behavioral worldview, 24/7 behaviorism, a little behavioral systems analysis, and a little organizational behavior management. Also in the process, they've completely mastered our BATS bible *Principles of Behavior* (Malott & Shane, 2014), with which they will lead freshman-level, Intro to Behavior Analysis discussion groups for the next year. And they've just earned their first 6 h of grad school credit.

Intro Behavior Analysis Discussion Leader During the next two semesters, each new MA student is the discussion leader for a twice-a-week section of our freshman course, Intro to Behavior Analysis, with about 10 students per section. During this time, they, really, really master our BATS bible *Principles of Behavior* (Malott & Shane, 2014). (Yes, we use our bible at both the undergrad and the MA level. And the WMU students who had it as undergrads say they master it much more when they repeat it in Boot Camp and master it even more when they then help teach it for two semesters.) In addition, they review all the relevant instructional material and take a quiz over the relevant chapter before each meeting of their discussion section.

Besides becoming true masters of the concepts and principles of behavior analysis, the MA students are also acquiring public speaking, staff training, and staff management skills as they train and manage their "staff" of 10 behavior analysis learners.

BCBA Intensive Practicum In the fall, they also start five semesters of our intensive preschool practicum, 2 h/day, 5 day/week, 15 weeks/semester, accruing much more than the 750 h required by the BACB. They start by behavior teching it, one on one, with a kid, and then move on to supervising undergrad techs and program coordinating for two or three kids.

Their entire practicum is just with the preschool kids, rather than with a new population and new setting each semester, with the rationale that it is more important that they advance their skill level as much as possible during those five semesters than that they start, more or less, at the entry skill level with a new population, more or less every semester. However, during their second year, some of our students arrange for additional experience in other centers with other populations.

But just as we researchers need to be careful not to exploit the kids we're trying to help, so those of us concerned about the kids need to be careful not to exploit the university students we're trying to teach, whether they're undergrad or grad students. For example, a kid is absent 1 day, or even a few days, what should the university-practicum student who's learning to be a behavioral tech do? I know: we need a lot of

stimulus materials for the classroom so our student tech can spend a few hours cutting out and pasting paper stars etc. No! That's not what our student is going deeply in debt paying considerable tuition money for. We have to make sure our student's getting some sort of valuable educational experience—maybe working, two on one, with another tech. It's important, but difficult, to stay vigilant on these exploitation issues.

Autism Project During their second year, the MA student starts a specific autism project, usually with a single kid, collecting, graphing, and analyzing the data, resulting in a poster, a PowerPoint, and a write up. We will now be adding a portfolio, where they list their BCBA accomplishments and activities, and we're now reconsidering all this.

Many of our MA students also have the opportunity to supervise an undergrad honors thesis, usually in conjunction with their own MA project. In so doing, they're further honing their supervisory skills. But again, we have to make sure this is a valuable learning experience for the undergrad and not just an exploitative way of getting some IOA data.

Systems and OBM Projects Each MA student is also responsible for helping with one of the 15 BATS systems (e.g., BATS itself, Media, Child Program Coordinating, MA Research, our Intro to Behavior Analysis course, and our Autism Practica). For example, they make sure their systems are function properly, undergoing continuous quality improvement, and have all the documentation they need. In addition, each second year MA trains the first year MA on how to be responsible for their system.

The word on the street is that our alumni find the systems/OBM skills they acquire in these projects, as well as in their related didactic courses, to be very useful and appreciated by their employers in the real world.

Didactic Courses from Other Faculty In addition to the courses required by the BACB for approval and ABAI for program accreditation, the students take a couple OBM, systems, or staff training courses, all taught by other WMU faculty.

What, No MA Thesis? Again, because the BATS MAs are learning to be science-based practitioners, not researchers, we don't waste their time pretending we're training scientists or rationalizing that training them as scientists is the best way to train them to be practitioners. But, because a few of our students want to continue into a PhD program where a thesis, as well as a dissertation, will probably be required, we're beginning to encourage those students to do their autism projects or OBM/systems projects as a start on their thesis research.

In addition, our goal is for our students to get their MAs in 2 years, and a thesis worthy of that name usually ends up

extending the MA program by another year or so, in reality, if not in theory. Also, there's no way for me to graduate 15 thesis students per year, and that's not a rationalization for the afore-described rational.

Success As I write this, June 23, 2017, Facebook is being swamped with brand-new BATS MA alumni sharing the happy news that they just passed the BACB exam and are now, officially, BCBAs. Of course they passed, they're BATS alumni. But I'll admit, I'm on the verge of tears of joy. And of course they're joined by a large number of celebrants from other programs.

PhD Program

The problem with the BACB is that they keep raising their standards. Back in the good old days, our students could do something like 300 h of practicum work, and their supervision consisted of a PhD coming into a lecture room with 20 MA students and chatting with the group for an hour or so. But the BACB keeps insisting on raising their standards. And there's no way I can individually supervise 30 MA students each week; so I had to admit a handful of PhD students with their BCBAs to do the heavy lifting.

The Good and the Bad The good news: I meet individually with 5-ish very cool PhD students for an hour every week, to go over their thesis and dissertation research and writing. And I love it; it's intellectually stimulating and challenging and it's useful stuff.

In addition, we meet for 4 h every Saturday afternoon, 2 h to review general practicum issues and the progress of their individual kids and 2 h to address general BATS issues. And that 2-h practicum meeting is so valuable and so much intellectual fun that we're joined every week by Dr. Steven Ragotzy, school psychologist at our West Campus practicum site, and by retired Dr. Carmen Jonaitis, founder of our autism practicum way back in the day.

So generally I spend 25–30 h, Monday–Sunday in meetings with my MA and PhD grad students, which I love. But the bad news: I no longer have time to directly supervise my students working with the kids.

For a Behavior-Analytic Practitioner, What's the Value of Earning a PhD? A couple days ago, I Facebooked that question, and it's still kicking up a ruckus.

One hour ago, while writing this, I got a Facebook message from an alum: I do have to say that the thesis and dissertation process (in BATS) was very helpful or I wouldn't have had a clue what to do (when she wrote a practitioner-case-study article for publication). Or how many hours of writing and rewriting I was committing to.

And about 3 years ago, I sent out a survey to my recent PhD alumni about the value of getting their PhD. Here's a summary of their replies:

Best things? The PhD helped me get a university-faculty job. Learned a lot more. Got experience providing BCBA supervision, especially when I wasn't working directly with the clients. Much more experience developing programs for the kids. Learning to write well. Presenting at conferences. Learning to handle a heavy workload.

Worst things? The amount of work and the cost. Wanted more research opportunities than BATS provided. Spanish as a research tool. Wanted some exposure to older and more severe clients.

Worth it financially? Being Dr. X causes me to be taken more seriously by clients and potential clients and may have made it easier to establish my own business. A PhD has not increased my potential salary, but that's OK. May make it easier to become a clinical director (not all agreed nor that they would necessarily start with a higher salary).

And, from a clinical director who got her MA in BATS a few years ago and is now going for an online PhD elsewhere: I want a stronger skill set for supervising BCBAs and those pursuing their BCBAs and a deeper knowledge to critically analyze our behavioral concepts and their applications.

One famous scientist-practitioner said it is not worth it to get a PhD, if you aren't planning to do research. Others have said it was. And Josh Pritchard Facebooked that, in searching for sites for his FIT BCBA practicum students, the site's having a PhD clinical director was a major indicator of quality.

So, failing to get IOA on this, I'm concluding that getting a PhD is great, if you want one. A waste of time, if you don't. And OK, if you're not sure.

BS Program

The problem with most PhDs is the only thing they really care about is PhD programs. Yeah, I know there are an increasing number of MA BCBA programs, but those tend to be university-administrator, \$\$\$-driven, and not a result of the deep desire of PhD faculty to train practitioners, unless they can somehow twist it into increasing their research, publication, grant productivity. And if you think that's bad, what about undergrad programs? Ugh!

Scientific Proof Informally, it looks like there are no more than ½ dozen undergrad behavior analysis programs in the world. For comparison, ABAI has accredited 11 PhD and 20 MA programs but only 2 BS programs. And where are those ABAI-accredited BS programs? Clearly one must be at WMU in Kalamazoo, MI. Ah... well not exactly; one's in Reno, NV and the other's in Oslo, Norway (not even in the

US of A!). Do you think a real science, like chemistry or physics, would have such a low proportion of BS programs?

But, at least, WMU is one of the ½ dozen behavior analysis BS programs in the world, though not yet accredited, and BATS is a chunk of that non-accredited program.

Now that our graduating undergrads are in some demand as Board Certified Assistant Behavior Analysts (BCaBAs), there are also a growing number of BACB-approved, undergrad, course sequences, which is cool. But there's another fairly obvious, though neglected, reason why we should be moving in on those undergrads: they're the source of our MA and PhD program students.

BATS' Three BS-Level Goals

1. To seduce our undergrads into the field of behavior analysis
2. To get them relatively skilled in behavior analysis
3. To get them saving the world with behavior analysis, even as mere undergrads

And the importance of those goals is in descending rank order, at the undergrad level. If they don't get turned onto behavior analysis and don't want to dedicate their lives to it, they will make very little use of whatever they've learned, no matter how skilled they become. (Please don't fall for the liberal-education myth that everyone should learn a little bit of everything, even though those little bits aren't directly related to his or her future employment.) And even if they didn't learn too much as undergrads, they can master the field as grad students; in fact, BATS still has an occasional student entering our MA program with little or no background in our field and yet acing it, once they get in.

Of course we do want them to become as undergrad-level skillful in behavior analysis as possible, to help with goal no. 3, and to help the MA program they may enter, and to prove they should be admitted into an MA program. So, we do bust their butts and ours with that skill acquisition. But we never forget the seduction goal.

And finally we want them to start contributing to our world-saving efforts, even as undergrads, but we have a motivational confound here. The main reason we want them helping us save the world is that there's nothing more seductive than experiential learning, working to save the world. And there's no experience more seductive than using behavior analysis to help those cute little autistic kids; nothing more seductive than seeing their progress, actually make a difference in someone's life, in a mere semester. Like, wow; sign me up!

Intro to Behavior Analysis Our first shot is our Intro to Behavior Analysis course. We try to make it as seductive as possible, with the main source being our BATS Bible,

Principles of Behavior (Malott & Shane, 2014), written to be as heartwarming as possible, with all sorts of world-saving applications, as relevant as possible, with all sorts of everyday examples, and as entertaining as possible, with all sorts of smart-ass humor, which you may not enjoy but most students do. And yet, it's written to be as rigorous as possible and as learning-conducive as possible. Furthermore, it works; our survey data suggest it's often the major force that convinces our students to stick both toes in the water, to further test out behavior analysis.

Rat Lab Concurrent with our intro course, we have a humble little rat lab. In theory, we offer this so the students can learn what an FR 10 is; but in fact, it's to further seduce them into behavior analysis. And it seems ridiculous, but it also seems to work. The rat lab turned me on when I was a sophomore 60 years ago; it caused one of those top 2% JABA publishers to switch from speech path to psych; and at the last ABAI, one old, retired college professor, came hobbling up to me and said that his 1968 WMU rat lab is what seduced him into behavior analysis and into spending his PhD career teaching behavior analysis. Not only that, it still works just as well with the college kids today. Nothing says shaping, reinforcement, extinction, discrimination, and ratios, like Rudolph the Rat pressing the lever before your very eyes and as a result of the very things you do with your very own hands. So professors, if you really love your students, get them a rat lab, even though doing so may be a bit of a pain in the butt. Experiential learning rocks.

Autism Practicum After they've completed our principles of behavior course and a little one-credit pre-practicum course, they're ready for our crown jewel of seduction, our autism practicum. If they weren't yet 100% committed to saving the world with behavior analysis, this should do it. And it does do it for many, though still not everyone; and that's OK too, I reluctantly suppose. But after 2 h/day, 5 days/week, for 15 weeks, with their cute little, pain-in-the-butt kid, after seeing his clear though not always huge progress that they clearly contributed to, as our practicum students head off for Christmas break, it's often with eyes dripping sad tears of separation. Don't cry; you can take this practicum three semesters in a row, if you're really into it.

And while autism practica are especially seductive, most practica and projects will do the trick, whether autism, DD, problem doggies in animal shelters, OBM, or basic research. So professors, if you really love your students, get them a cool practicum. Experiential learning rocks.

Honors Thesis And finally, we have our two-semester honors thesis, still part of our sneaky seduction plan, along with a little more skills honing. Originally, the honors thesis was only part of WMU's way cool Honors College. But I saw that most

of those entering our MA program hadn't been in the Honors College, so we invented the Departmental Honors Thesis, for those not in the Honors College but with impressive GPAs. And it works well. Most of their theses are in our autism program, where each thesis student is supervised by a second year MA student, with hopefully everyone benefiting, the undergrad, the grad, and the kids. So professors, if you really love your students, get at least some of them an honors thesis. Experiential learning rocks.

Balanced Exploitation

Now, as you may have noticed, I do exploit the hell out of my students from freshmen to doctoral level. But the trick is to do it so that it's always worthwhile for them. In other words, they must be learning their money worth, whether it's working with the kids, leading Intro Behavior Analysis discussion groups, researching and evaluating improved procedures for the kids, or helping to improve the BATS systems. And that's not easy, especially in these days of decreasing university budgets; it's too easy for us to rationalize the experientials as justifiable learning opportunities, when they're just our desperate attempts to fill the gaps. We must be vigilant, even though experiential learning rocks.

Conclusions and Butt Covering

The truth is, for me, autism is just a target of opportunity. My real goal is not to train practitioners to help cute, little autistic kids and their families. And my real goal is not only to save the world with behavior analysis; it's also to understand the world with behavior analysis, whether or not the world itself benefits from that understanding. And one of the main ways I work toward those two goals is to teach behavior analysis to university students from college freshmen to graduating PhDs. And no way do I intend to demean basic research (e.g., JEAB) nor applied research (e.g., JABA). That research is crucial to our field. And I don't mean to suggest that those practitioners trained with the scientist-practitioner model, aka, the Boulder model (Baker & Benjamin, 2000) are inferior practitioners to those trained with the science-based practitioner model. But I do mean to suggest that those of us who are training students to be practitioners should seriously consider a science-based practitioner model rather than the scientist-practitioner model as a more direct way of training excellent practitioners; and in so doing, you should put a strong emphasis on the principles, concepts, and theory of behavior analysis. But to master those, you do not need training as a researcher, as a scientist, nor does researcher training ensure that mastery. However, I'm not so naive as to fight pre-PhD phatalism, to expect that I will change the views or teaching of those who've already devoted a significant chunk of their lives to

the scientist-practitioner model. But I do fantasize that I might slightly nudge a few of those who are less committed to that traditional model.

And for more information than you might want about our attempts to develop the rational for our science-based practitioner model and the behavioral technology to implement such a model, please see the following: Dean, Fulton, & Malott, 1983; Garcia, & Malott, 1988; Garcia, Malott, & Brethower, 1988; Jackson, & Malott, 1944; Malott, 1984; Malott, 1992a; Malott, 1992b; Malott, 2002; Malott, 2005; Malott, Garmendia, & Griesser, 1992; Malott, Vunovich, Boettcher, & Groeger, 1995; Miller, Goodyear-Orwat, & Malott, 1996; Welsh, Malott, & Kent, 1980; and Yaber, & Malott, 1993.

And of course, all this is just my humble opinion, and I could be wrong...but I'm probably not.

Oh yes, and though I consider autism to be just a target of opportunity, I find it an irresistible target, not only for my students, but also for me. In other words, not only do I love working, all be it indirectly, in the field of autism services, with the kids and their families, but I'm really happy to do so and consider it an important, valuable activity in its own right. And in spite of all my whining, I'm still so damned happy to be in behavior analysis.

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