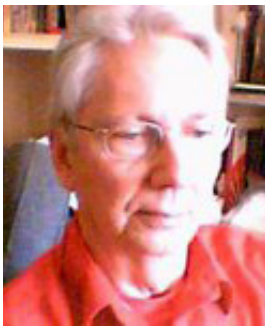
Yes We Can!

A Masters Series Presentation

by Dale M. Brethower, Ph.D.



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"Yes we can!" is the answer to these questions Can we improve performance? Can we get better at improving performance? Can we claim to have

- a powerful theory base?
- an extensive research base?
- an extensive validated practice base?
- documentation for our claims?

I will also answer these questions to support the "Yes we can!" argument:

Who is the "we" who can?

What is our theory background?

How can we improve performance?

What types of performance can we improve?

In what settings can we improve performance?

Who "we" are

We are members of ISPI and fellow travelers such as members of the Organizational Behavior Management Network. We include

- Applied Behavior Analysts
- Clients
- Consultants
- Managers
- Performance Technologists
- Researchers
- Theorists
- Trainers

"Applied Behavior Analysts" is listed first to reflect the alphabet and history. Several of the pioneers of human performance technology (HPT) had behavioral psychology as part of their educational histories. Not behavioral psychology in general but a very specific and unique approach: the approach has had various names, including "operant conditioning," "Skinnerian psychology," and "applied behavior analysis." The theory underlying applied behavioral analysis owes much to the work of B.F. Skinner and Fred Keller. Fred Skinner and Fred Keller were lifelong friends and both were personally involved programmed learning in the 1960s and published widely about other applications of behavioral principles. Much of the early research and development in HPT was done by behaviorists who had studied with one of the two Freds.

I should point out, so you will not be confused by the premature obituaries, that the behavioral approach has been declared "dead" on at least 3 separate occasions during my lifetime. The purported deaths apply to several varietals of behavioral approaches but do not reflect the state of applied behavior analysis. The most recent death notices have been issued in celebration of the "cognitive revolution" in psychology and education. The death notices reflect revolutionary enthusiasm but do not reflect reality. The contributions of applied behavior analysts have flourished, not died, and have been incorporated into mainstream thinking in management, special education, clinical psychology, human performance technology, and other areas of application.

When the descriptive label "human performance technologist" came into common use people noticed that the field is broader

than programmed instruction. "Human performance technologist" describes people from a variety of backgrounds such as education, communications, organizational psychology, engineering, and the arts. What human performance technologists have in common is a bias toward research-based practices that focus on getting measured results. That simple bias sets HPT apart from many others who work in training, communications, human resources, and management.

The field of human performance technology was given impetus in the very early years by people who had a day job in academia. The HPT baton was carried from academia and into the rest of the world by academics who added consulting to their duties or who left academia to earn a living as consultants or as practitioners (of HPT) who were hired by for-profit and not-for-profit organizations.

HPT people collaborated with clients to achieve measured performance results. Clients, from time to time, left their jobs and became HPT consultants. For many years, we were people who knew one another, often worked with one another or in competition with one another, and met together once a year at ISPI conferences to exchange information, stories, and techniques. Much of the communication in HPT was person-to-person until there were so many of us that we developed other communication channels, including books, journals, and newsletters.

Many human performance technologists earned their living in training/human resource development departments. ASTD, the American Society for Training and Development, remained the professional home of many in the training/HRD professions but the research and results bias of HPT attracted thought leaders to ISPI and HPT.

Who are we? People from a variety of educational backgrounds and with an array of job titles but with a bias in common: we prefer research-based and validated methods that focus on results.

What is our Theory Background?

Historically, HPT has drawn heavily on general systems theory and behavioral psychology. (Another name for the field, used by a few hundred people, is Behavioral Systems Analysis.) The behavioral and general systems theory orientation is common to several of the thought leaders of HPT. My personal background in theory has three components: behavioral theory as represented by BF Skinner; general systems theory as represented by James G. Miller and Herbert Simon; applied behavior analysis as represented by articles published in the *Journal of Applied Behavior Analysis* and *Journal of Organizational Behavior Management* as well as a dozen or so books (included in the bibliography below); and approaches to clinical issues through behavior therapy as represented by the American Association for Behavior Therapy, gestalt therapy as represented by Fritz Perls, and rational emotive therapy as represented by Albert Ellis.

Please believe that my theoretical background is an orientation, not a set of blinders. By accidents of training and interaction with professional colleagues, I am able to describe work in my interest areas using the language of cognitive psychology and psychodynamic (Freudian) approaches, among others. I mention this to support the argument that some of the theory disputes related to HPT are more about language than substance.

How do we improve performance?

We use research-based and validated methods that focus on results. We

- Work with clients

• Share information
Use client's principles & practices
Use HPT principles & practices

The performance results we seek occur within the context of an organization; we must work with the client. The client-as-person and the client-as-organization work within a context, work within constraints, work within the realities of their organization and its external environment, and work within the constraints of their knowledge and experience. We must work with clients to learn about that organizational context and external environment, to learn how our principles and practices can fit into their principles and practices to produce worthy results.

We learn about desired results by asking questions, examining documents, and observing people at work. We ask questions like these: If we change performance X, what good might it do? What harm might it do elsewhere in the organization? We learn about the client's principles and practices, knowing that the client's practices are part of the problem and will be part of the solution. We educate the client by modeling specific HPT principles and practices.

Doing all that is more easily said than done. We have developed specific tools and tactics, some of which I will describe as I describe the vast array of performances that we can improve, that we know we can improve because we have done it, repeatedly, and can describe in detail how it was done.

What performance can we improve?

Allow me to give the broad answer first, then fill in the details and give specific references. We can improve a wide range of performances by many different people in many different settings.

We can improve the performance of total organizations: processes, individuals, groups, teams, and departments. We can improve performance in many setting such as the workplace, school, family, and community.

What Workplace Performance can we improve?

• Safety
• Attendance
• Teamwork
• Quality
• Production---Output
• Productivity--V/C

We can improve: Safety

How do we improve safety? The following references provide details but notice a few things discernible from the titles. McSween describes how we can change the safety culture of an organization. We can change how people think about safety, how they prioritize safety practices, how they support safe behaviors, and how they measure and track results and make management decisions based on results.

McSween, T.E. (1995). *The Values-Based Safety Process: Improving your safety culture with a behavioral approach*. NY: Van Nostrand Reinhold.

Komaki and her colleagues acknowledge that a safety program has many components and show how it is possible to evaluate components of the program to discover the importance (or lack of importance) of a specific component.

Komaki, J., Heinzmann, A. T., and Lawson, L. (1980) Effect of training and feedback: Component analysis of a behavioral safety program. *Journal of Applied Psychology, 65:*261-270.

Sulzer-Azaroff discusses the many facets of accident prevention and uses a very broad term to describe the total effort. Instead of the "safety culture" that McSween mentions, she uses the term "behavioral ecology" to emphasize not only the human culture but also the physical and technological environment.

Sulzer-Azaroff, B. (1978) Behavioral ecology and accident prevention. *Journal of Organizational Behavior Management, 2*:122-130.

We can improve: Attendance

The chapter by Carlson and Sperduto describes the consultation model used to work with clients to achieve specific and measured results related to getting to work and getting to work on time.

Carlson, R.M., & Sperduto, W.A. (1982). Improving attendance and punctuality within a behavioral consultation model. In R.M. O'Brien, A.M. Dickinson, & M.R. Rosow, *Industrial Behavor Modification: A management handbook.* NY: Pergamon Press. 209-223.

Hermann and his colleagues focus on a specific technique for increasing punctuality and, thereby, validate the technique.

Hermann, J.A., De Montes, A.I., Dominguez, F.M., & Hopkins, B.L. (1973). Effects of bonuses for punctuality on the tardiness of industrial workers. *Journal of Applied Behavior Analysis, 6,* 563-570.

Pedalino, E., & Gamboa, V.U. (1974). Behavior modification and absenteeism: Intervention in one industrial setting. *Journal of Applied Psychology, 59,* 694-698.

We can improve: Teamwork

These three references illustrate improving teamwork in different contexts, within a workplace, within a specific type of group, and on the gridiron.

Buller, P.F., & Bell, C.H. (1986). Effects of team building and goal setting on productivity: A field experiment. *Academy of Management Journal. 29,* 305-328.

Johnson, D.W., Johnson, R.T., Stanne, M.B., & Garibaldi, A. (1990). Impact of group processing on achievement in cooperative groups. *Journal of Social Psychology. 130* (4) 507-515.

Komaki, J. & Barnett, F. (1977). A behavioral approach to coaching football: Improving play execution of the offensive backfield on a youth football team. *Journal of Applied Behavior Analysis. 10,* pp 657-654.

We can improve: Quality

The Brethower & Wittkopp reference shows connections between the logic of the quality movement and a basic and validated concept of HPT, the total performance system. The article by Welsh and his colleagues illustrates application of a very basic principle of applied behavioral analysis, the Premack principle. The Premack principle states that the opportunity to engage in a more valued activity can be used to reinforce performance of a less valued activity, e.g.. do your homework and you may play.

Brethower, D.M. & Wittkopp, C.J. (1987). Performance engineering: SPC and the total performance system. *Journal of Organizational Behavior Management, 9,* 83-93.

Welsh, D.H.B., Bernstien, D.J., & Luthans, F. (1992). Application of the Premack Principle of reinforcement to the quality

performance of service employees. *Journal of Organizational Behavior Management. 13,* 9-31.

We can improve: Work Output

These two references illustrate three points.

First, "work output" is not the same thing as "productivity." Productivity is a ratio, an output measure divided by an input measure. The dollar value of the output divided by the dollar cost of producing the output is a productivity measure. The distinction between output and productivity is important. There are two common ways to *increase* work output and *decrease* productivity at the same time. The obvious way is to spend more increasing the output than the increased output is worth. The less obvious way is to increase work output in one part of a process, doing so in a way that decreases the work output of the total process.

Second, one of the often mentioned and widely misinterpreted phenomena, the so-called Hawthorne Effect, can be explained using fundamental principles of HPT.

Third, it is feasible to analyze specific variables that impact a complex performance.

Parsons, H.M. (1974). What happened at Hawthorne? *Science, 183,* 922-932.

Luthans, F., Paul, R., & Baker, D. (1981). An experimental analysis of the impact of contingent reinforcement on salespersons' performance behavior. *Journal of Applied Psychology, 66*(3), 314-323.

We can improve: Productivity Value/Cost

This reference illustrates several points. The main point is that organizational development can occur through the implementation of strategic plans; organizational development can be measured by improvements in productivity, that is, value of outputs divided by the costs of producing them.

Second, Eickhoff showed how to work simultaneously at the organization, process, and individual level and how to implement plans at the team and department level.

Third, she showed that individual, process, and organization measures can be aligned over the course of several years to produce results that are extremely important to the organization as a whole. (Additional support for these three points can be found in the attached bibliography, primarily in material published since 1996.)

Eickhoff, S.M. (1991). *Organizational Development through the Implementation of Strategic Plans.* Kalamazoo, MI: Ph.D. Dissertation, Western Michigan University.

Where can we improve performance?

The set of references attached below and provided in a handout provided at the 1996 ISPI conference demonstrates that we can improve performance in multiple types of not-for-profit workplaces and in multiple for-profit industries. I emphasized improvement of school related performance because, by 1996, many newcomers to ISPI did not know that HPT had been applied successfully in schools and because of the potential value of that work. The titles of the articles tell a story of the range of successful applications of HPT concepts and principles.

Not-for-profit workplaces

Schools

Binder, C. & Watkins, C. L. (1990). Precision Teaching and Direct Instruction: Measurably superior instructional technology in schools. *Performance Improvement Quarterly, 3* (4), 74-96.

Human services agencies

Brethower, D. M. (1970). *The Classroom as a Self-modifying System*. Ann Arbor, MI: Ph.D. Dissertation, University of Michigan.

Phillips, E.L. (1968). Achievement place: Token reinforcement procedures in a home-style rehabilitation setting for 'pre-delinquent' boys. *Journal of Applied Behavior Analysis,* 1,213-224.

Government agencies

Brand, D. D., Staelin, J. R., O'Brien, R. M. and Dickinson, A. M. (1982). Improving white collar productivity at HUD. In R. O'Brien, A. M. Dickinson & M. Rosow, *Industrial Behavior Modification*. New York: Pergamon Press.

For-profit workplaces

Those HPT professionals who work in training/HRD departments speak each year at the ISPI conference about applications that occur in a great variety of industries. A few of the many other HPT applications, prior to 1996, are listed below. The titles tell a story about the wide range of applicability of the concepts, principles, and techniques of HPT.

Manufacturing

Hermann, J.A., De Montes, A.I., Dominguez, F.M., & Hopkins, B.L. (1973). Effects of bonuses for punctuality on the tardiness of industrial workers. *Journal of Applied Behavior Analysis,* 6, 563-570.

Sulzer-Azaroff, B., Loafman, B., Merante, R. J., & Hlavacek, A. C. (1990). Improving occupational safety in a large industrial plant. *Journal of Organizational Behavior Management,* 11, 99-120.

Mining

Fox, D.K., Hopkins, B.L., & Anger, W.K. (1987). The long-term effects of a token economy on safety performance in open-pit mining. *Journal of Applied Behavior Analysis*, 20, 215-234.

Rhoton, W. W. (1980). A procedure to improve compliance with coal mine safety regulations *Journal of Organizational Behavior Management*, 4(4):243-249.

Banking

Dierks, W. & McNally, K. (1987). Incentives you can bank on. *Personnel Administrator*. 32, 60-65.

What school performance can we improve?

- Time on task
- Accuracy
- Fluency
- Level of achievement
- Goody Two-Shoes

We can improve: Time on Task

Time on task is a dependent variable in many studies of improved school performance. The study by Schroeder & Holland is a classic and pioneering study in the field. It illustrates increasing time on task in a laboratory setting and explores powerful and practical techniques I have used in classrooms.

Schroeder, S. R. & Holland, J. G. (1968). Operant control of eye movements during human vigilance. *Science.* 161 (838) : 292-3.

We can improve: Accuracy

Kulik, C.C., Kulik, J.A., & Bangert-Drowns, R.L. (1990). Effectiveness of mastery learning programs: A meta-analysis. *Review of Educational Research. 60,* 265-299.

McMichael, J.S., & Corey, J.R. (1969). Contingency management in an introductory psychology course produces better learning. *Journal of Applied Behavior Analysis, 2,* 79-83.

We can improve: Fluency

Johnson, K.R., & Layng, T.V.J. (1992). Breaking the structuralist barrier: Literacy and numeracy with fluency. *American Psychologist, 47,* 1475-1490.

Johnson, K.R., & Layng, T.V.J. (1994). Morningside model of generative instruction. In Gardner, III, R., Sainato, D.M., Cooper, J.O., Heron, T.E., Heward, W.L., Eshleman, J., Grossi, T.A. (1994). *Behavior analysis in education: Focus on measurably superior instruction,* Pacific Grove, CA: Brooks/Cole Publishing Company.

We can improve: Level of Achievement

Binder, C. & Watkins, C.L. (1990). Precision teaching and direct instruction: Measurably superior instruction techniques in schools. *Performance I mprovement Quarterly. 3* (4) 74-96.

Gersten, R., Keating, T. & Becker, W.C. (1988). The continued impact of the Direct Instruction Model: Longitudinal studies of Follow Through students. *Education & Treatment of Children. 11* (4) 318-327.

Heiman, M. (1987). Learning to Learn: a behavioral approach to improving thinking. In Perkins, et al, (Eds.) *Thinking.* Hillsdale, NJ: Earlbaum Press, 431-452.

We can improve: Compliance

I used the term "Goody Two Shoes" in the 1996 talk instead of "compliance." The flippancy was inspired by the fact that work in discipline problems in schools had been criticized by concerned people who complained that behaviorists could "control" children's behavior but not "improve" children's learning.

Homme, L.E., deBaca, P.C., Devine, J.V., Steinhurst, R., & Rickert, E.J. (1963). Use of Premack principle in controlling the behavior of nursery school children. *Journal of the Experimental Analysis of Behavior, 6,* 544.

Murphy, H.A., Hutchinson, N.M. & Bailey, J.S. (1983). Behavioral school psychology goes outdoors: The effect of organized games on playground aggression. *Journal of Applied Behavior Analysis. 16,* 33.

O'Leary, K.D., & Becker, W.D. (1968). The effects of the intensity of a teacher's reprimands on children's behavior. *Journal of School Psychology, 7,* 8-11.

Whose school performance can we improve?

We can improve the performance of pre-schoolers, elementary level students, high school students, undergrad & grad level students, teachers of all such learners, administrators, school psychologists & counselors, and speech teachers & reading teachers.

The following book describes how to improve performance in schools and also describes some of the data.

Grossi, T.A. (1994). *Behavior analysis in education: Focus on measurably superior instruction*, Pacific Grove, CA: Brooks/Cole Publishing Company.

Pre-schoolers

Allen, K.E., Hurner, K.D., & Everett, P.M. (1970). A behavior modification classroom for Head Start children with problem behaviors. *Exceptional Children.* 37, 119-127

Elementary Level

Ayllon, T., & Roberts, M. (1974). Eliminating discipline problems by strengthening academic performance. *Journal of Applied Behavior Analysis, 7,* 71-76.

Cossairt, A., Hall, R.V., & Hopkins, B.L. (1973). The effects of experimenter's instructions, feedback, and praise on teacher praise and student attending behavior. *Journal of Applied Behavior Analysis, 6,* 89-100.

High School

McAllister, L.W., Stachowiak, J.G., Baer, D.M., & Conderman, L. (1969). The application of operant conditioning techniques in a secondary classroom. *Journal of Applied Behavior Analysis,* 2, 277-285.

Undergrad & Grad Level

Keller, F.S. (1974). Ten years of personalized instruction. *Teaching of Psychology. 1* (1) 4-9.

Lloyd, K., & Knutzen, N.J. (1969). A self-paced programmed undergraduate course in the experimental analysis of behavior. *Journal of Applied Behavior Analysis, 2,* 125-133.

Pressey, S.J. (1926). A simple apparatus which gives tests and scores--and teaches. *School Soc., 23,* 373-376.

Teachers

Fox, C. J. and Sulzer-Azaroff, B. (1989). The effectiveness of two different sources of feedback on staff teaching of fire evacuation skills. *Journal of Organizational Behavior Management,* 10(2):19,-35.

Gaasholt, M. (1970). Precision teaching in the management of teacher and child behavior. *Exceptional Children*, 37, 129-135.

Administrators

Brethower, D. M. (1970). *The Classroom as a Self-modifying System*. Ann Arbor, MI: Ph.D. Dissertation, University of Michigan.

Carnine, D. (1992). The missing link in improving schools- Reforming educational leaders. *ADI News,* Volume 11, number 3, (pp.10-15).

School Psychologists & Counselors

Coleman, A.D., & Boren, J.J. (1969). An information system for measuring patient behavior and its use by staff. *Journal of Applied Behavior Analysis,* 3, 207-214.

Morice, H.O. (1968). The school psychologist as a behavioral consultant: A project in behavior modification in a public school setting. *Psychology in the Schools* 5, 253-261.

Speech Teachers & Reading Teachers

Sidman, M. & and Cresson, O. (1973). Reading and transfer of crossmodal stimulus equivalences in severe retardation. *American Journal of Mental Deficiency,* 77, 515-523.

Smith, D.E.P., Brethower, D. M., & Cabot, R. (1969). Task behavior under various conditions of reinforcement. *Journal of Experimental Child Psychology*, 8, 45-62.

What Family Performance Can We Improve?

A very significant book describes a long research program that demonstrated that there are very specific things parents can do that enhance intellectual development of children. The research demonstrated effectiveness within socio-economic categories. That is, the effects occurred within high, low, or middle socio-economic categories. parents who did specific things in everyday interaction with their children

had children who performed better than those whose parents did not do those things. The effects occurred when common "artifacts" such as differences in intelligence or education or racial classification were statistically controlled.

Intellectual development of children

Hart, B. & Risley, T.R. (1995). *Meaningful differences in the everyday experience of young American children.* Baltimore: Brooks Publishing.

Teen-age performance

The Family and School Consultation Project (directed by Richard Stuart in Ann Arbor, Michigan) worked with families to improve a number of problematic performances including school attendance, school performance, and coming home on time. The techniques we used and the results we obtained were similar to results commonly reported in the *Journal of Applied Behavior Analysis*. An especially interesting series of studies is:

Fixsen, D.L., Phillips, E.L., & Wolf, M.M. (1973). Achievement Place: Experiments in self-government with pre-delinquents. *Journal of Applied Behavior Analysis, 6,* 31-47.

Cooperation among children

Azrin, N.H., & Lindsley, O.R. (1956). The reinforcement of cooperation between children. *Journal of Abnormal and Social Psychology. 52,* 100-102.

Parental and Marital problems

Stuart, R.B., & Lederer, W.J. (1978). *Caring Days: Techniques for improving marriages.* N.Y.: W.W. Norton.

Mutual Support and Happiness

For references to improving mutual support and happiness I referred to unpublished work I had done while teaching parenting classes. "Happiness" and "Mutual Support" were increased by applying standard HPT tactics. For example, parents generated lists of "happiness" indicators and "mutual support" activities and monitored the indicators as they implemented specific tactics, e.g., recognizing children for saying positive things about one another rather than tattling on one another, recognizing everyone in the family for doing things on a "nice things to do for others" list posted on the refrigerator.

What Types of Individual Performance Can We Improve?

Normal performance at work, in school, and in the family. Performance related to clinical problems: cognitive disorders, affective disorders, and behavioral disorders

Individual Performance

Stuart, R.B. (Ed.) (1977). *Behavioral Self-Management: Strategies, techniques, and outcomes*. N.Y.: Brunner/Mazel.

Stuart, R.B., & Davis, B. (1972). *Slim chance in a fat world.* Champaign, Ill.: Research Press.

Clinical Performance

There is an annual review that reports progress in behavior therapy and contains extensive reviews of the relevant clinical literature. The studies included deal with three major categories of clinical problems: cognitive, affective, and behavioral disorders.

Franks, D.M., & Wilson, G.T. (1973, 1974, … 1990, 1991, …). *Annual Review of Behavior Therapy: Theory & practice.* New York: Brunner/Mazel.

One area of special concern has been issues related to health. That work has resulted in a field of its own, behavioral medicine.

Behavioral Medicine

Agras, S. (1992). Some structural changes that might facilitate the development of behavioral medicine. *Journal of Consulting and Clinical Psychology*. (60)4: pp 499-504.

Anderson, B. (1992). Psychological interventions for cancer patients to enhance the quality of life. *Journal of Consulting and Clinical Psychology*. (60)4: pp 552-568.

Azrin,N.H., McMahon, P.T., Donohue,B.C., & Besalel,V.A.(1994). Behavior therapy for drug abuse: A controlled treatment outcome study. *Behaviour Research & Therapy*, 32, 857-866.

Cox, D.J. & Gonder-Frederick, L. (1992). Major developments in behavioral diabetes research. *Journal of Consulting and Clinical Psychology*. (60)4: 627-638.

DeVries, J. E., Burnette, M. M., & Redmon, W. K. (1991). AIDS prevention: Improving nurses' compliance with glove wearing through performance feedback. *Journal of Applied Behavior A nalysis*, 24, 705-711.

Epstein, L.H. (1992). Role of behavioral theory in behavioral medicine. *Journal of Consulting and Clinical Psychology*. (60)4: pp493-498.

Miscellaneous

Two "classic" books contain many case studies showing the power and applicability of techniques that are now among the tools of HPT. Some, such as towel hoarding by a person confined in a mental institution, are not serious by themselves but are indicative of performance problems that will interfere with normal functioning.

Ulmann, L., & Krasner, L. (1965). *Case Studies in Behavior Modification.* New York: Holt, Rinehart, & Winston.

Ulrich, R., Stachnik, T., & Mabry, J. (eds.). (1966). *Control of Human Behavior*. Glenview, Illinois: Scott, Foresman and Company.

What types of community performance can we improve?

Significant research has been conducted for some time on community problems. Two topics, one vexing and one deadly, show that HPT is applicable to important community problems.

Littering

Dixon, R.S., & Moore, D.W. (1992). The effects of posted feedback on littering: Another look. *Behaviour Change. 9,* 83-86.

Durdan, C.A.. Reeder, G.D., & Hecht, P.R. (1985). Litter in a university cafeteria: Demographic data and the use of prompts as an intervention strategy. *Environment & Behavior. 17,* 387-404.

Safe Driving

Russ, N. W., & Geller, E. S. (1987). Training bar personnel to prevent drunken driving: A field evaluation. *American Journal of Public Health, 77,* 952-954.

Van Houten, R, & Nau, P.A. (1983). Feedback interventions and driving speed: A parametric and comparative analysis. *Journal of Applied Behavior Analysis, 16,* 253-281.

In the Commons

Geller, E. S. and Lehman, C. R. (1991) The buckle-up promise card: A versatile intervention for large-scale behavior change. *Journal of Applied Behavior Analysis, 24,* 91-94.

Yes We Can: demonstrate a strong foundation in research

The research evidence strongly supports the

contention that HPT has a solid foundation. I have provided references to some of the research here but there is additional research evidence I could have provided, including references to research that originates in the cognitive science arena. I have not presented that evidence, not because if is unimportant, but because that is not my area of expertise. However, the two books referenced below are classics that show the strength of that research and show that such research was around before the "cognitive revolution" gathered steam. Good research is good research. Contrary to what some might believe, good research done from a cognitive perspective does not contradict the findings of good research done from a behavioral perspective. And vice versa. Those who believe that it does have failed to convince me that they can tell the difference between good research and sloppy research or the difference between unfounded assertions and theory statements.

Neisser, U. (Ed.) (1987). *Concepts and Conceptual Development.* Cambridge: Cambridge University Press.

Posner, M. I. (1973). *Cognition: An introduction.* Glenview, IL: Scott Foresman.

How Can We Get Better at Improving Performance?

The evidence supports the contention that HPT has a track record of success. But lest success lead to complacence and complacence to incompetence, allow me to assert that there is significant room for improvement. There is room for improvement in

- dissemination of the evidence,
- replacing techniques that do not work with techniques that do,
- learning how to make larger and more sustainable impacts in more organizations and in more people's lives, and
- our confidence, in our competence, and in our ability to get the job done.

I have two suggestions for improvement:

1. Use the 30 Second Theory
2. Focus on the Performance Episode

The 30 second theory is useful as a way to remind ourselves of the nuts and bolts of what we do and explain what we do to clients. It is a theory that says three things are important:

1. Goals are important
2. Processes are important
3. Feedback is important!

In my experience, clients have no trouble understanding and agreeing with all three points. They might have a little bit of trouble believing that their goals are unclear (or poorly communicated or not well understood). They might have a little trouble believing that processes, ways of attaining the goals, have gotten messed up. They might have a little trouble believing that people do not get the feedback required to perform well. But they have little difficulty believing that if

1. goals are unclear or conflicting or
2. processes are messed up or unclear or
3. feedback isn't getting to the right people at the right time, then

performance will suffer. And they do not have difficulty believing that one should find out for sure if any of those three things is happening.

Think about it. Do you have any trouble believing that your projects will suffer if

1. your project goals are unclear or conflicting or
2. work methods and procedures/ processes are messed up or unclear or
3. feedback isn't getting to the right people at the right time?

Do you have any trouble believing that your clients will worry and, perhaps, not approve a

project if

1. your project goals are unclear or conflicting or
2. work methods and procedures/ processes are messed up or unclear or
3. feedback isn't likely to get to the right people at the right time?

You knew about the 3 points of the 30 second theory. But here are 4 things you might not know:

1. All 3 are necessary: clear goals, effective processes, and effective feedback.
2. The 3 are sufficient.
3. The 3 must be integrated.
4. It's EASY to muck up goals and processes & VERY EASY to muck up the integrations!

So, how do you apply the 30 second theory?

1. Align the performance goals!
2. Streamline and connect the primary work processes!
3. Establish effective feedback systems!

Want to fix a sick performance system?

1. Align the performance goals!
2. Streamline and connect the primary work processes!
3. Establish effective feedback systems!

Want to design a healthy performance system?

1. Align the performance goals!
2. Streamline and connect the primary work processes!
3. Establish effective feedback systems!

I call it a 30 Second Theory even though it takes about 5 seconds to say. But it takes 30 seconds to say it to a client so the client understands.

"To get this project done successfully, we have to do 3 things."

It'll take another 25 seconds to say those 3 things in the client's language referring to the specific project.

And, it'll take the last 2 seconds to say "Would you agree with that?" and pause expectantly to do an agreement check.

Here's an example: time it if you wish - "To get managers around here to support the TQM initiative, we have to do 3 things:

1. Let 'em know it's a priority: Maybe we could tie it to their production goals and personal bonuses.
2. Show them how the TQM work helps them get the work done on time at quality while reducing cost and frustration.
3. Keep track of how we're doing: Monitor progress, eliminate the crap, and support good performance.

Would you agree? Can we safely leave any part out?"

I hope you see that the 30 second theory is practical. Now, just so that you know that it has a solid foundation in HPT….

Here is how Mager said it in 1968:

1. Where are we going? (Goals)
2. How shall we get there? (Processes)
3. How will we know we've arrived? (Feedback)

Here is how Gilbert said it in 1978:

1. Models (Identify excellence at all levels of vantage--Goals)
2. Methods (Identify how to do it--Processes)
3. Measures (Measure & manage performance--Feedback)

Here is how Rummler & Brache said it in 1991

1. Develop Goals (organization, process, and individual goals)
2. Develop Designs (for processes for

attaining the goals)

3. Develop Management Systems (with feedback)

Here is how you can say it in 1996:

"If you want to improve performance there are three things you must do:

1. Align Goals!
2. Align Processes!
3. Align Feedback!"

You and I know that it takes a lot of detail work to do that but I hope no one believes that the detail work will yield positive results unless it serves to:

1. Align Goals!
2. Align Processes!
3. Align Feedback!

Another concept that might help us improve is the performance episode. It will help us do the detail work if we observe something about important performances.

Worthy performance occurs in episodes and cycles. Each episode is important; it accomplishes something. Cycles are more important; they represent recurring value adding performance.

A Performance Episode has a beginning, a middle, an end, and it repeats! Value-adding performance episodes are like that.

There is a picture of a performance episode below. Notice that the performance episode shown has a beginning, (called Analysis in the example) a middle, (called Design) and an end (called Implement--which includes Evaluation). Notice that the cycle repeats.

The performance episode diagram can be used to describe ANY performance episode. Just change the labels. It can describe big ones like ADIE and little ones like turning on the lights: analyze (is it time to turn on the light?) design (I think this is the right switch) and implement (flip the switch and see if the lights come on).

The performance episode diagram can be used by trainers, coaches, or managers. You can use it if you are a trainer who believes that people should be shown a demonstration: diagram the performance and have them observe the beginning, middle, and end.

If you are a person delegating something: make sure the person to whom you are delegating knows the end (what is to be accomplished), the middle (the means of accomplishing it) and the beginning (when, where, how, and why to get started). And when to do it again.

You might have already figured something out something that is very important about managing performance episodes. There are three keys to success:

1. Feedback at the beginning of a cycle!
2. Feedback during the middle of a cycle!!
3. Feedback at the end of a cycle!!!

Right? The HPT process model shows that we evaluate (get feedback) every step of the way. That is, we get feedback every step of the way if we want to be successful. Why would other complex performance episodes not have the same feature?

To summarize:

Can we claim to have...

1. A powerful theory base? Yes, we can!
2. An extensive research base? Yes, we can!
3. An extensive validated practice base? Yes, we can!
4. Can we back up our claims with documentation? Yes, we can!

Can we be proud of our accomplishments? Yes, we can!

Can we perform better in the future?Yes, we can!

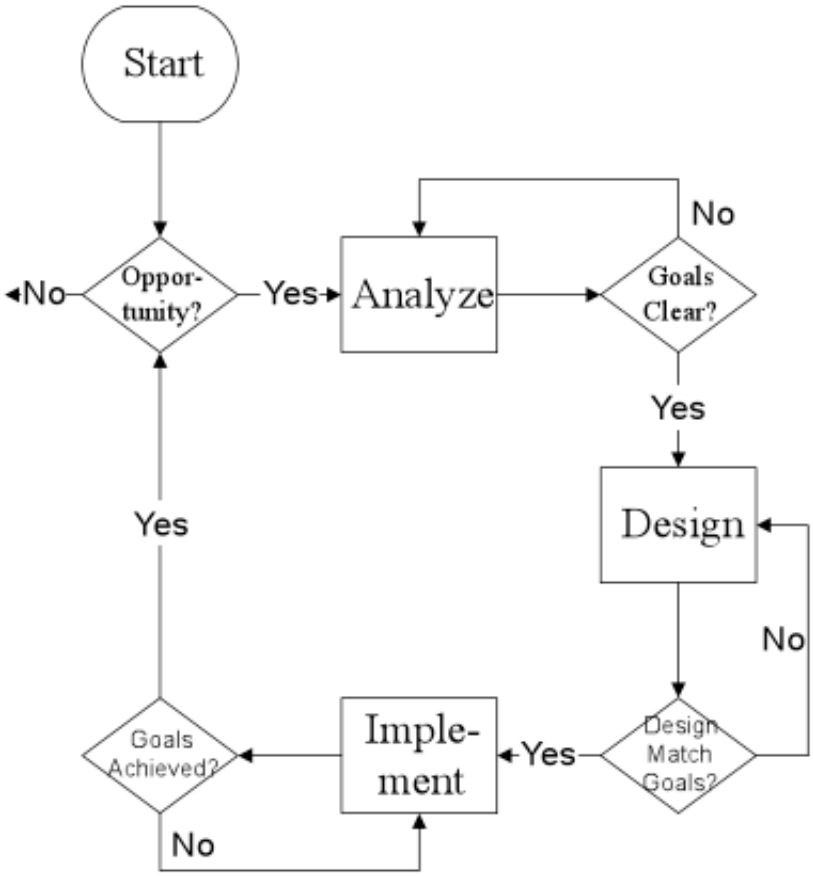
How?

Use the 30 Second Theory!

Use the Performance Episode concept!

Documentation

This section includes a table from the 1996 Masters Series presentation.

Questions	Answers	Examples	More examples
What performance can we improve?	Total Organization, Process, Individual, Group, Team, Department	Profit Margin, Timeliness, Quality, Cost, Safety, Attendance, Work Output, Clinical Problems, etc.	School achievement, theft, littering, cooperation, self-management, health care, teamwork, psychological health
Where can we improve performance?	Workplace, Family, Clinic, Community	Workplaces--For-profit & Not-for-profit; Families--Healthy & Dysfunctional; Communities--In-the-Commons	Schools, prisons, government agencies, parks, highways, cafeterias, clinics, medical facilities, mental health facilities, etc.
How can we improve performance?	Use Validated Practices, Technologies, & Theories	Best Practices, Human Performance Technology, Applied Behavior Analysis, General Systems Theory, REBT	**30 Second Theory Performance Episode**
Who should be involved?	Custodians of Problems & Opportunities; People with Applicable Knowledge	Managers, Applied Behavior Analysts, Human Performance Technologists	Performers, Researchers, Theoreticians

Performance Episode