IDEIA AND THE MEANS TO CHANGE BEHAVIOR SHOULD BE ENOUGH: GROWING SUPPORT FOR USING APPLIED BEHAVIOR ANALYSIS IN THE CLASSROOM

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With the passage of the Individuals with Disabilities Education Improvement Act, classrooms are now mandated to employ behavioral methods to address target behaviors. These relevant behavioral strategies have long been advanced and disseminated by the field of Applied Behavior Analysis (ABA). Notwithstanding this capability, proponents of the traditional child-centered pedagogy have long argued against ABA implementation, claiming that it is ineffective in promoting true intellectual development. Now a major breakthrough has occurred. State departments of education are increasingly complying with IDEIA by mandating funding and training of school staff in ABA methods. A relevant review of the guidelines and capabilities of ABA is presented and concludes with an examination of various state departments of education to identify its current employment.

What teachers and students do can be understood. By analyzing the classroom, teachers can make themselves more organized and more responsible so that they can encounter fewer disappointments (Heward & Wood, 2003). This available method by which the environment can be analyzed to understand behavior is called Applied Behavior Analysis (ABA). ABA is a scientific approach for discovering environmental variables that reliably influence socially significant behaviors and developing technology of behavior change that takes practical advantage of those discoveries (Cooper, Heron, & Heward, 2007).

Practitioners of ABA are guided by five documents regarding ethical behavior: Ethical Principles of Psychologists and Code of Conduct (American Psychological Association, 2002), The Right to Effective Behavioral Treatment (Association for Behavior Analysis, 1989), The Right to Effective Education (Association for Behavior Analysis, 1990), Guidelines for Responsible Conduct for Behavior Analysts (Behavior Analyst Certification Board, 2001), and the Behavior Analyst Task List (Behavior Analyst Certification Board, 2005). Referring to these documents for guidance, behavior analysts can best answer three questions related to their service (Cooper et al., 2007): What is the right thing to do, what is worth doing, and what does it mean to be a good practitioner? By adhering to these guidelines, practitioners will have a ready source of reliable, accurate, and valid data to inform educational decision making.

The methods of ABA have successfully served the public in a wide variety of areas. These areas include education (Dardig et al., 2005), health and exercise (De Luca & Holborn, 1992), language acquisition (Barbera & Kubina, 2005), AIDS prevention (DeVries, Burnette, & Redmon, 1991), and parenting (Kuhn, Lerman, & Vorndran, 2003). Several successful and popular methods using ABA principles in the classroom are Direct Instruction (Adams & Englemann, 1997; Englemann & Carnine, 1991), school-wide

positive behavioral support (Tobin, Lewis-Palmer, & Sugai, 2001), curriculum based measurement, and curriculum matching (Hale et al., 2007). While treatment for autism is currently a popular area of research (Borrero & Borrero, 2008; Jerome, Frantino, & Sturmey, 2007), ABA methods have been established as effective for reducing target behaviors displayed by individuals with disabilities as well as non-disabled individuals (Didden, Duker, & Korzilius, 1997; Weisz, Weiss, Han, Granger, & Morton, 1995).

Despite over 40 years of data supporting the effectiveness of behavior analytic methods, misconceptions and opposition remain. Opponents of ABA often attack the use of sequenced, structured instruction as compromising the intellectual development of the learner (Kim & Axelrod, 2005). Contrasting existing views in education and psychology, ABA seeks to identify present environmental contingencies that determine behavior rather than conform to mentalistic explanations of behavior. Further opposition to ABA claims that its methods are insensitive to the interests and needs of the learner**.** In putting the resistance to using ABA methods in schools in a nutshell, Glass (1993) may have said it best, "teachers do not need data-based findings of experiments to decide how best to teach children." This popular resistance to the scientific method has been a significant barrier to the dissemination of ABA teaching techniques.

That ABA has the documented empirical ability to address behaviors affecting education is now exceptionally relevant. The field has the means to assist schools in the development of effective assessment and intervention procedures (Kates-McElrath, Agnew, Axelrod, & Bloh, 2007). Recent federal legislation now mandates that schools use behavioral methods that have been employed in ABA since its inception. The incorporation of these behavioral concepts in the language of federal law may represent the most significant policy impact that behavior analysis has ever generated (Bradley, 1999). This directive compels school systems across the country to incorporate behavioral strategies to a degree never before realized.

With the revision of the Individuals with Disabilities Education Act, the Individual with Disabilities Education Improvement Act of 2004 (P.L. 108-446, IDEA), hereafter IDEIA, Congress identified domains requiring behavioral support for students. Specifically, IDEIA Sections §612, 613, 614, 615, 654, 662, 663, and 665 outline myriad areas where behavioral support may be necessary. These components include (but are not limited to) functional behavior assessments (FBA), positive behavioral supports, behavioral interventions, classroom and student management, and prevention of behavioral problems. With the resources and technology available, coupled with the legal mandate requiring behavioral support for those students who could benefit, ABA could enhance instruction in our schools.

While IDEIA calls for the use of behavioral supports previously mentioned, the statute does not clearly define what is required of an FBA or positive behavioral supports. Notwithstanding subjective interpretations, essentially all published interpretations and explanations of the law define these practices in accordance with the operant framework that is disseminated by applied behavior analytic, peer-reviewed journals (Dunlap & Kincaid, 2001). Special education systems are mandated to attend to salient reinforcers and discriminative stimuli when conducting assessments and interventions for students whose placements are endangered due to behavioral issues. Schools nationwide must now consider proactive and therapeutic supports for students engaging in problem behavior. While it may be assumed that FBAs have utility in special education classes only, research cites that this ABA method has wide appeal to students in general education settings as well (Scott, McIntyre, Liaupsin, Nelson, & Conroy, 2004; Scott et al., 2004;

Ingram, Lewis-Palmer, & Sugai, 2005).

So in 2004 the law directed the use of ABA methods for those students requiring it for disciplinary issues. How are the states responding? While all states are required to implement the aforementioned behavioral supports, not all describe them formally as "ABA." The following states (the list is not exhaustive) specifically do cite the name of ABA when describing the methods to be used in schools. The following information does not, however, identify the numerous due process court cases where ABA services have been rendered as part of judicial rulings.

Teacher training materials for the Bureau of Special Education (Pennsylvania Department of Education) explain that teachers can use ABA to manage classroom behavior, reduce individual behavior problems, and teach replacement behaviors (http://www.pattan.net/Publications.aspx?ContentLocation=/teachlead/Curriculumf.aspx). The Pennsylvania Training and Technical Assistance Network (PaTTAN) elaborates that ABA can be used to address behaviors in both special and general education settings. They further identify Direct Instruction, Discrete Trial Teaching, and Precision Teaching as methods use to educate students that are based on the principles of ABA. Gains in achievement were reported for special and general education students, elementary and secondary students, and in a variety of academic subject areas using Direct Instruction (Adams & Engelmann, 1996). The Pennsylvania Schoolwide Positive Behavior Support System uses ABA methods to proactively address behaviors. This proactive, direct instructional approach is more effective than traditional punishment-based alternatives in improving academic success (Meyers, 2001).

Similar to Pennsylvania, North Carolina formally recognizes and disseminates ABA research methods. The latter's department of education (http://209.85.165.104/u/ncpublicschools?q=cache:C4Yd7TUq0gwJ:www.ncpublicschools.org/docs/ec/instructional/autism/bestpractices.doc+applied+behavior+analysis&hl=en&ct=clnk&cd=1&gl=us&ie=UTF-8) actually uses the *Journal of Applied Behavior Analysis* as a reference for the information presented. As this journal is one of the leading sources for disseminating ABA research, this could be considered a breakthrough for the discipline.

Other state departments of education choose to establish standards for behavioral supports. The California Department of Education (www.pent.ca.gov/law/summaryofbehterms.pdf), the State Education Department of New York (http://www.vesid.nysed.gov/specialed/behavioral/interventions-606.pdf), and the New Jersey Department of Education (www.state.nj.us/education/grants/docs/07-FB01-H03.doc) recognize ABA as a quality practice and recommend it as an instructional strategy. Additionally, New Jersey suggests that those practitioners applying for state-funded grants consider ABA as a method. New York further mandates that behavior intervention procedures are monitored by a committee that is comprised of at least one professional with appropriate credentials in ABA.

Still, other states advocate ABA curricular approaches across learning domains. The departments of education for both Connecticut (http://www.sde.ct.gov/sde/lib/sde/ PDF/EPS/Special/resource.pdf) and Maryland (http://www.marylandpublicschools.org/ / NR/rdonlyres/E1037D11-827B-438D-9253-80B608E817CF/10248/AutismInformationforParentsandCaregivers.pdf) claim that ABA can improve the language, self-help, play, academic, social, and attentional skills of students. Maryland even goes so far as to provide resources where caregivers can gain knowledge in evaluating ABA home programs and guidelines in choosing an ABA provider.

Lastly, funding for behavioral services is a priority in some state budgets. Virginia, Conneticut, Georgia, Ohio, and Orgeon

identify either a behavior analyst or behavior specialist as those professionals receiving state funding for behavior support within their budgets (http://www.ed.gov/about/reports/annual/osep/2004/26th-vol-1-append-a.pdf). Virginia even goes so far as to provide funding for ABA personnel support through 2010 (http://www.fcps.edu/ss/linkedfiles/OSEUpdate/12_07ose update.pdf).

So, what now? Are we, the educational community, to seize this legally mandated opportunity and deliver ABA services to those students requiring them? Returning to an earlier oppositional statement claiming that teachers do not need data-based findings to decide how to teach children is comparable to asserting that they do not need electrical lights (candles can be used), computers (a slate board can be nostalgic), or bus transportation for their students (the two-mile uphill walk both-ways can be invigorating). As improving the ability for students to learn in the general and special education classroom is socially significant, using the latest and validated methods of ABA is vital for those students who would benefit. The means and justification are here. Let us now serve.

REFERENCES

Adams, G. & Engelmann, S. (1996). *Research on direct instruction: 20 years beyond DISTAR*. Seattle, WA: Educational Achievement Systems.

American Psychological Association. (2002). *Ethical principles of psychologists and code of conduct.* Washington, DC: Author. Retrieved November 17, 2003 from www.apa.org/ethics/code2002.html.

Association for Behavior Analysis. (1989). *The right to effective education*. Kalamazoo, MI: Author. Retrieved November 17, 2006 from www.abainternational.org/ABA/statements/treatment.asp.

Association for Behavior Analysis. (1990). *Students' right to effective education.* Kalamazoo, MI: Author. Retrieved November 17, 2006 from www.abainternational.org/ABA/statements/treatment.asp.

Barbera, M.L., & Kubina, R.M. (2005). Using transfer procedures to teach tacts to a child with autism. *The Analysis of Verbal Behavior, 21,* 155-161.

Behavior Analysis Certification Board. (2001). *Guidelines for responsible conduct for behavior analysts.* Tallahassee, FL: Author. Retrieved November 17, 2003, from http://bacb.com/consum_frame.html.

Behavior Analysis Certification Board. (2005). *Behavior analyst task list, third edition.* Tallahassee, FL: Author. Retrieved November 17, 2003, from http://bacb.com/consum_frame.html.

Borrero, C.S.W. & Borrero, J.C. (2008). Descriptive and experimental analyses of potential precursors to problem behavior. *Journal of Applied Behavior Analysis, 41,* 83-96.

Bradley, R. (1999, September). *Functional assessment and the federal IDEA mandate.* Keynote address at the 19th annual meeting of the Florida Association for Behavior Analysis, Tampa, FL.

Cooper, J.O., Heron, T.E., & Heward, W.L. (2007). *Applied Behavior Analysis (2nd ed.)*. Upper Saddle River: NJ.

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

De Luca, R.V. & Holborn, S.W. (1992). Effects of a variable-ratio reinforcement schedule with changing criteria on exercise in obese and nonobese boys. *Journal of Applied Behavior Analysis, 25,* 3, 671–679.

Didden, R., Duker, P. C., & Korzilius, H. (1997). Meta-analytic study on treatment effectiveness for problem behaviors with individuals who have mental retardation. *American Journal on Mental Retardation, 101*, 4, 387-399.

Dardig, J.C., Heward, W.L., Heron, T.E., Neef, N.A., Peterson, S., Sainato, D.M., Cartledge, G., Gardner, R., Peterson, L. R., & Hersh, S.B. (2005). *Focus on behavior analysis in education: achievements, challenges, and opportunities*. Upper Saddle River, N.J: Pearson/Merrill/Prentice Hall.

Dunlap, G. & Kincaid, D. (2001). The widening world of functional assessment: comments on four manual and beyond. *Journal of Applied Behavior Analysis, 34,* 365-377.

Engelmann, S. & Carnine, D. (1991). Theory of instruction: Principles and applications (Revised edition). Eugene, OR: ADI Press.

Glass, G. (1993, August-September). Research news and comment-a conversation about educational research priorities: A message to Riley. *Educational Researcher, 22,* 6, 17-21.

Hale, A.D., Skinner, C.H., Williams, J., Hawkins, R.,

Neddenriep, C.E., & Dizer, J. (2007). Comparing Comprehension Following Silent and Aloud Reading across Elementary and Secondary Students: Implication for Curriculum-Based Measurement. *The Behavior Analyst Today Volume 8, ,1,* 9-23.

Heward, W.L. & Wood, C.L. (2003). Thursday afternoons with Don: Selections from Three Teleconference Seminars on Applied Behavior Analysis. In K.S. Budd & T. Stokes (Eds.), *A Small Matter of Proof: The Legacy of Donald M. Baer* (pp. 293-310). Reno, NV: Context Press.

Individuals with Disabilities Education Improvement Act, H.R. 1350, 108th Congress (2004).

Ingram, K., Lewis-Palmer, T., & Sugai, G., (2005). Function-Based Intervention Planning: Comparing the Effectiveness of FBA Function-Based and Non-Function-Based Intervention Plans. *Journal of Positive Behavior Interventions, 7,* 4, 224-236.

Jerome, J., Frantino, E. P., & Sturmey P. (2007). The effects of errorless learning and backward chaining on the acquisition of internet skills in adults with developmental disabilities. *Journal of Applied Behavior Analysis, 40,* 185-189.

Kates-MeElrath, K., Agnew, M., Axelrod, S., & Bloh, C. (2007). Identification of behavior function in public schools and a classification of terms. *Behavioral Interventions, 22,* 47-56.

Kim, T. & Axelrod, S. (2005). Direct Instruction: An educator's guide and a plea for action. *The Behavior Analyst Today*, *6,* 111 - 120.

Kuhn, S. A. C., Lerman, D. C., & Vorndran, C. M. (2003). Using pyramidal training to teach caregivers of children with developmental disabilities to implement function-based treatments. *Journal of Applied Behavior Analysis, 36,* 77-88.

Meyers, D. (2001, April). *Creating a continuum of effective behavioral supports.* Paper presented at the meeting of the Pennsylvania Training and Technical Assistance Network, Harrisburg, PA.

Scott, T. M., Bucalos, A., Liaupsin, C., Nelson, C. M., Jolivette, K., DeShea, L. (2004). Using Functional Behavior Assessment in General Education Settings: Making a Case for Effectiveness and Efficiency. *Behavioral Disorders, 29*, 2, 189-201.

Scott, T.M., McIntyre, J., Liaupsin, C., Nelson, C. M., & Conroy, M. (2004). An Examination of Functional Behavior Assessment in Public School Settings: Collaborative Teams, Experts, and Methodology. *Behavioral Disorders, 29,* 4, 384-395.

Tobin, T.J., Lewis-Palmer, T., & Sugai G. (2001). School-Wide And Individualized Effective Behavior Support: An Explanation And An Example. *The Behavior Analyst Today, 3, 1,,* 51-75.

Weisz, J.R., Weiss, B., Han, S.S., Granger, D.A., & Morton, T. (1995). Effects of Psychotherapy With Children and Adolescents Revisited: A Meta-Analysis of Treatment Outcome Studies. *Psychological Bulletin, 117,* 3, 450-468.