

Behavior Analysis and Special Education

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- The introduction of behavior analysis to the field of education was not met with open arms by the educational establishment.
- Between 1953 and 1968 Skinner along with his students and colleagues worked diligently to achieve full scale adoption of behavior analytic principles by educators in schools. He was offering them a technology of teaching that would increase student achievement.
- He began his efforts in earnest after visiting his daughter's fourth grade classroom on father's day in 1953, and said "Something had to be done" (Barrett, 2002, p.19)

- Skinner's major efforts in education ended in 1968 with the publication of his text *Technology of Teaching*.
- "Yesterday I finished the *Technology of Teaching*. I felt numb. It had dominated me for years, with increasing ferocity." (Skinner, 1983, p.296)
- But he left more than numb he left the field with an incredible technology of pedagogy whose better days were yet to come.

- Here are just a few of Skinner's and behavior analysis' contributions to the work we do each day in classrooms with children with autism:
 1. **The Analysis of Verbal Behavior**- since the behavior to be shaped in classrooms is mostly verbal.
 2. **Behavioral Objectives**- how to define terminal performance
 3. Demonstrated the importance of **Active Student Responding**
 4. The value of **Immediate Reinforcement**
 5. How to **Shape Behavior** to its final topography.
 6. The benefits of **Errorless Performance**.
 7. How to conduct **Discrimination Training**
 8. **Stimulus control transfer through Prompting, Fading and Probing**
 9. The importance of **Individualized Instruction**
 10. The value of **Data Based Decision Making**.

- My own foray into the field of special education began some 45 years ago.
- My undergraduate degree in psychology was almost exclusively behavior analytic because the head of the department was a radical behaviorist and more than an acquaintance of Skinner's.
- He insured our indoctrination to behavior analysis by having Skinner visit our department as often as possible. We didn't have a chance.
- Steve Luce, well known for his work with Catherine Maurice on the first ABA handbook of autism treatment in 1996, was one of my classmates.

- At that time, around 1973, one of the only ways to make use of behavior analysis was in public institutions and in particular schools.
- There was an increasing number of reports in the literature documenting the benefits of operant conditioning methods within special education
- Since you needed a degree in special education I enrolled in a Special Education master's program.
- But once enrolled in the program I realized that the teacher training programs had not yet been influenced by the behavioral literature for I found I received social disapproval from the faculty for talking behaviorally about instructional issues. Skinner once warned that it was "damaging" to talk about teaching in everyday language.

- After a couple of years of the program and now qualified by state requirements to teach I obtained a position as a special education teacher.
- I quickly learned that my training had not prepared me to teach.
- I found that I knew a lot **about** teaching but not **how** to teach.
- Frankly, what would you do to educate children with autism if you knew little about:
 - Teaching verbal behavior
 - Stimulus Control- Prompt and prompt fading procedures
 - Active Student Responding
 - How to Shape Behavior
 - Teaching Discriminations

- The evolution of the field of special education in the US has been mainly driven by changes in the law.
- The legal system forced changes in special education services in 1977, then 1986 and eventually 1997 with IDEA requiring greater access to all students, greater accountability and the requirement that students make educational progress.
- Each one of these Federal legislative acts increased the value of behavior analysis given its emphasis on measurable outcomes, empiricism, individualization and interest in “function over form” were well matched to the changing legal requirements placed upon special educators.
- These changes have insured the adoption of behavior analytic methods within the field of special education.

- Training programs for special educators now include behavior analytic course tracks and requirements.
- Textbooks devoted to behavior analytic methods in classrooms are now being published including one titled ‘Skinner for the Classroom’(Epstein & Skinner, 1982)
- In 1987, Skinner published a paper titled “The Shame of American Education”.
- In that paper he suggested four steps to improve the education of children in schools.

- The four steps are:
 1. **Be clear what is to be taught-** IEPs include behavioral objectives a step in this direction.
 2. **Teach first things first-** Don’t try to teach mathematical logic, instead teach math skills. Observable and measurable goals make this more likely to be accomplished
 3. **Stop making all students advance at essentially the same rate-** the requirements of individual plans move in this direction.
 4. **Program the subject matter.** – Some commercially available materials, e.g. Direct Instruction materials, are accomplishing some of this.
- While Skinner considered his failure to influence the educational establishment his biggest disappointment there are indicators in the field of special education of children with autism educators are adopting his recommendations.
- Our colleagues in general education still have a long way to go.

- An encouraging sign is that a search on the 2018 JABA site that includes the word **education** results in the identification of over 1600 articles.
- Finally, the Pennsylvania Commonwealth Autism Initiative through PATTAN provides a model for the application of behavior analysis in public school classrooms for children with autism that goes beyond the legal requirements.
- In over 500 classrooms serving thousands of students throughout the commonwealth children with autism receive well supervised behavior analytic services.
- Outcome data from this project are demonstrating the benefits of application of behavior analytic methods within special education classrooms.