



# Using eKidtools Software Tools to Provide Behavior Support in General Education Settings

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*A Case Study Published in*

*TEACHING Exceptional Children Plus*

*Volume 5, Issue 3, January 2009*

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## Abstract

Students are coming to schools with increasingly diverse academic, social, and emotional needs. Meeting each child's social and behavioral needs can be challenging and overwhelming, especially in the era of high-stakes testing. No Child Left Behind and the Individuals with Disabilities Education Improvement Act of 2004 (IDEIA) mandate the provision of behavior intervention plans and the use of evidenced-based best practices to teach appropriate behavior to students with learning and behavior problems. This article describes how an innovative software program, eKidTools, was used to design intervention programs that addressed the social and emotional needs of students with disabilities who exhibited challenging behaviors in general education classrooms. Three case studies are provided in which eKidtools software tools were used to increase target behaviors.

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## Keywords

behavior, inclusion, software

## SUGGESTED CITATION:

Whitby, P., & Miller, K. J. (2009). Using eKidtools software tools to provide behavior support in general education settings. *TEACHING Exceptional Children Plus*, 5(3) Article 5. Retrieved [date] from <http://escholarship.bc.edu/education/tecplus/vol5/iss3/art5>

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Students are coming to school with increasingly diverse academic, social, and emotional needs. Meeting each child's social and behavioral needs can be challenging and overwhelming, especially in the era of high-stakes testing. Nonetheless, creating effective intervention programs to address these needs has become increasingly important for educators.

No Child Left Behind and the Individuals with Disabilities Education Improvement Act of 2004 (IDEIA) mandate the provision of behavior intervention plans and the use of evidenced-based best practices to teach appropriate behavior to students with learning and behavior problems. This has resulted in the need for teachers to find ways to scaffold behavior instruction without taking time away from academics. This article describes how an innovative software program, eKidTools, was used to design intervention programs that addressed the social and emotional needs of students with disabilities who exhibited challenging behaviors in general education classrooms. Three case studies are provided in which eKidtools software tools were used to increase target behaviors.

### **Background**

As a behavior support teacher for a large urban school district, I spent hours creating behavioral intervention programs for students and teachers to use in general education classrooms. Writing a report with intervention recommendations, however, did not assure that an appropriate system for student support was

put in place. As a result, I began to create the behavioral interventions for general education teachers to use with students with challenging behaviors who were placed in their inclusive classrooms. This was done for several reasons. First, the teachers often did not have sufficient time to create elaborate programs. Additionally, many of the general education teachers did not fully understand the behavior principles underpinning a behavior intervention program and therefore created one that missed the target. By initially creating the intervention programs for the teachers, I was able to model how it could be implemented efficiently without disrupting the learning environment.

The goal was to implement timely and effective interventions that benefitted students and simultaneously provided teachers training that would prepare them to develop interventions on their own.

One day as I was working on creating a behavior intervention program, a teacher brought me a CD. She said, "Here is a software program with all the things you talk

about." The CD contained a software program entitled eKidTools. The eKidTools software had many of the behavior intervention program components and tools that I had spent hours creating. Having access to the software program literally changed how I worked with teachers and IEP teams. For example, after I provided behavior recommendations, I would download eKidtools onto a disk, provide examples of suggested eKidTool software tools to support the individual child, and give the disk and examples, to the teacher. With little

**The Teacher Resources allow teachers to apply scaffolding techniques to behavior interventions developed based on Vygotsky's Zone of Proximal Development theory, guiding the teacher to the eKidTools intervention that matches an individual student's behavioral support need level.**

training, teachers were able to use the software to develop their own interventions.

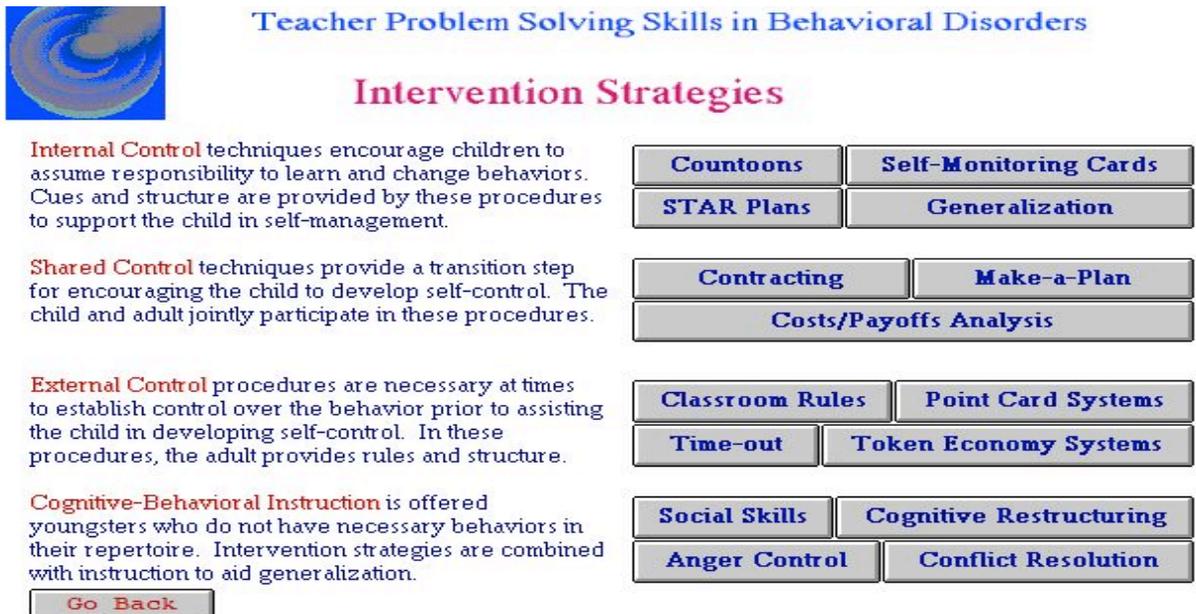
I brought the software and shared it with behavior intervention teams. The team would select which eKidTools software tool to use with a student. The sharing of the software resulted in increased behavior management skills of teachers in the school district. Several teachers began to independently use the software to develop effective interventions for students in their respective classrooms. As a result, the number of calls received from teachers seeking assistance to address behaviors decreased. Teacher comments indicated that they used the software because it was easy to use and free. The eKidTools software is free and downloadable at <http://kidtools.missouri.edu>.

#### *eKidTools*

eKidtools, developed by Gail Fitzgerald and Louis Semrau, with partial funding from

the U.S. Department of Education (Fitzgerald & Semrau, 1998–2000), are software tools that directly target behavior performance. They were designed to promote student cognitive behavior and self-instruction, and provide self-supports. The software tools have been used in behavior intervention programs designed to increase desired target behaviors with the goal of self-monitoring (Miller et al., 2007). Included in the eKidTools software are 14 different types and styles of monitoring tools that can be individualized for each student. Students and teachers can track behaviors using pictures, writing out behaviors with rewards and consequences, or counting the number of times the behaviors occur. Successful tool use requires student instruction on how to use strategies and guided practice toward independent use (Miller et al, 2007; Swanson & Hoskyn, 1998).

**Figure 1: Teacher Resources**



The screenshot displays a web page titled "Teacher Problem Solving Skills in Behavioral Disorders" with a sub-heading "Intervention Strategies". On the left, there are four text boxes describing different control techniques: Internal Control, Shared Control, External Control, and Cognitive-Behavioral Instruction. A "Go Back" button is located below the last text box. On the right, there is a grid of 14 buttons, each representing a different intervention strategy. The buttons are arranged in four groups: the first group has two buttons (Countdowns, Self-Monitoring Cards), the second group has two buttons (STAR Plans, Generalization), the third group has two buttons (Contracting, Make-a-Plan) and one wider button (Costs/Payoffs Analysis) below them, and the fourth group has two buttons (Classroom Rules, Point Card Systems), two buttons (Time-out, Token Economy Systems), and two buttons (Social Skills, Cognitive Restructuring) and two buttons (Anger Control, Conflict Resolution) below them.

**Teacher Problem Solving Skills in Behavioral Disorders**

**Intervention Strategies**

**Internal Control** techniques encourage children to assume responsibility to learn and change behaviors. Cues and structure are provided by these procedures to support the child in self-management.

**Shared Control** techniques provide a transition step for encouraging the child to develop self-control. The child and adult jointly participate in these procedures.

**External Control** procedures are necessary at times to establish control over the behavior prior to assisting the child in developing self-control. In these procedures, the adult provides rules and structure.

**Cognitive-Behavioral Instruction** is offered youngsters who do not have necessary behaviors in their repertoire. Intervention strategies are combined with instruction to aid generalization.

[Go Back](#)

Countdowns	Self-Monitoring Cards
STAR Plans	Generalization
Contracting	Make-a-Plan
Costs/Payoffs Analysis	
Classroom Rules	Point Card Systems
Time-out	Token Economy Systems
Social Skills	Cognitive Restructuring
Anger Control	Conflict Resolution

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To use the tools, students click “hot boxes” on the template to enter their personalized information, choose a system, create the forms, and print the form for use in their classrooms or homes. The program automatically enters the child’s name and the date, and establishes an audit trail for record-keeping purposes and user studies. The software allows the child to return to previous examples, erase entries and start over, print, and save entries.

There are two accompanying software programs – Teacher Resources and Teacher Tools – to assist teachers and parents in the implementation process (Miller et. al., 2007). Teacher Resources provides overviews and rationales on the strategies used for each tool, examples for each type of procedure, steps for implementation, trouble-shooting tips, and recommended resources. To assist teachers in the intervention selection and implementation process, the interventions offered within eKidTools are organized in Tool Resources as internal control, shared control, external control, and cognitive-behavioral instruction strategies. The Teacher Resources allow teachers to apply scaffolding techniques to behavior interventions developed based on Zygotsky’s Zone of Proximal Development theory, guiding the teacher to the eKidTools intervention that matches an individual student’s behavioral support need level.

### *Self-Management*

The teaching and facilitation of self-management skills can lead to an increased

use of appropriate behaviors by students. However, while general education teachers view self-management, self-control, and cooperation skills as important for classroom success (Meier, DiPerna, & Oster, 2006), they tend to have little training on how to teach self-management, self-control, and cooperation to students (Pavri, 2004).

Self-management strategies have been shown to benefit teachers and students in several ways (Cole, 1992). First, through their use students learn to take greater responsibility for their behavior. Self-monitoring efforts

also can provide students opportunities for more control of their interventions. A third potential benefit is the prospective for generalization of behaviors into additional settings (Cole, 1992; Mooney, Ryan Uhing, Reid, & Epstein, 2005).

Five common interventions that have been used to teach self-management are self-monitoring, self-evaluation, self-instruction, goal setting, and strategy instruction (Mooney, Ryan Uhing, Reid, & Epstein, 2005).

Approaches to teach these include cognitive behavioral instruction and the implementation of behavior intervention programs. To scaffold behavioral support, with self-management as the end goal, the level of support provided within cognitive behavioral instruction and behavior intervention programs should move from the employment of external control procedures in which adults provide rules and structures, to shared control techniques in which students and adults jointly participate in procedures for encouraging students to develop self-control, and then

**While the data speaks for itself, more important are the comments made by the students who used the program. One student said, “This is the best behavior program I have ever had.” A peer commented when seeing an eKidTools Fair Pair Countoon tool, “Wow! I have to get myself one of those!”**

to internal control techniques that encourage students to assume responsibility to learn and change behavior.

### Case Studies

Three behavior intervention case studies in which eKidTools was successfully implemented in inclusive settings are presented. Each case study is an example of how different teachers used eKidtools with students in their classrooms. The studies were not set up within a research design, thereby presenting limitations. First, anecdotal information regarding pre-intervention behaviors was available for two studies, while one case study presents baseline data. Maintenance and generalization were not addressed in terms of quantifiable data as the teachers were reporting only the data they collected. The purpose of the case studies is to provide examples of how teachers taught self-management through the use of eKidtools. The software tools were incorporated into intervention programs for elementary age students with disabilities who were exhibiting problem behaviors in general education classrooms. The interventions were designed to decrease behavior problems and increase adaptive skills, while serving the student in the least restrictive environment.

### Michael

Michael was a third-grade boy who had difficulty with social interactions. He would frequently argue with his teacher about fellow students he worked with in small groups, sat next to in the class, or were in close proximity during large-group circle time. Without close supervision, his social interaction difficulties often led to arguments, and occasionally to fights. Though the teacher was sensitive to Michael's needs, it was impossible to satisfy this need with seating assignments as Michael's temperament towards individual classmates changed daily. The identified target behavior to be decreased was the arguing with the teacher defined as refusal to work with teacher assigned partners or groups, loudly stating why he did not like the person he was sitting next too, and yelling at the teacher. The behavior Michael exhibited appeared to be an attempt to control the situation so that he could avoid fights with his peers. Prior to the intervention, when he became very frustrated, Michael would remove himself and walk to the restroom down the hall. Though Michael was demonstrating self-monitoring behaviors, this strategy was not working for him or the teacher.

**Figure 2: Michael's Fair Pair Countoon Data Collection Form**

What I Do 	How Many	What I Do	How Many
Arguing with teacher about who to work with group work or sit next to in class	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Work with anyone the teacher assigns me to work with or sit anywhere the teachers tells me to sit!	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

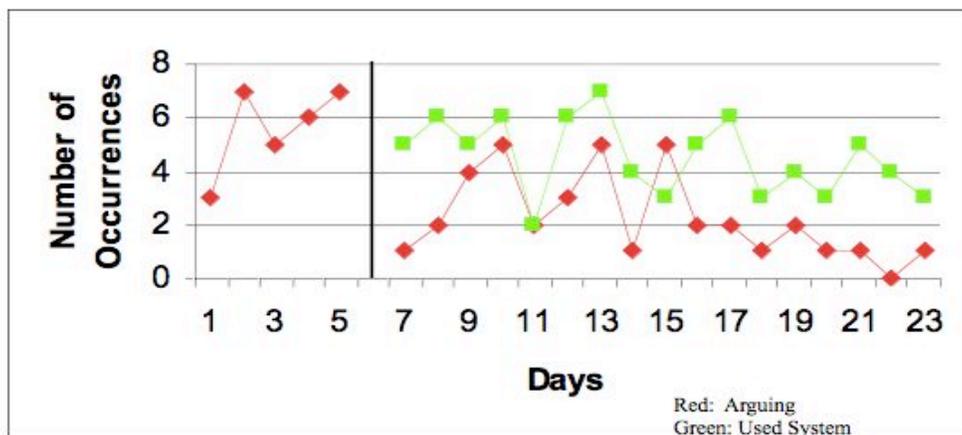
The student, with guidance, chose to use the Fair Pair Countoon (Figure 2) tool. A countoon is a self-monitoring system in which the student tracks his own behaviors and may include tracking replacement behaviors. Countoons are easy to implement and can positively impact student behavior if implemented correctly (Daly & Ranalli, 2003). Michael's Fair Pair Countoon was paired with a frustration-level cuing system that the Michael used to inform the teacher of his frustration level. He kept his Fair Pair Countoon on his desk and the teacher would prompt him to monitor and tally his behavior until he learned the routine. On an intermittent basis, the teacher tallied Michael's behavior as a check system. If at the end of the day Michael had more tallies for positive occurrence of the desired behavior than negative tallies, he earned computer time.

Michael used yellow, green, and red cards to cue the teacher for support. A green card on his desk indicated everything was okay. If Michael placed a yellow card on his desk, he needed to talk to the teacher. If a red card was on his desk, Michael was permitted to remove himself to a relaxation center where he put on headphones, performed relaxation activities, and then returned to class when he was ready.

The eKidTools Fair Pair Countoon intervention was very successful. Figure 3 shows a graph on the impact of the intervention. Using the Fair Pair Countoon tool Michael was able to self-monitor and improve his behavior. He received reinforcement at the end of each day for following his Fair Pair Countoon. A genial and unintended outcome was a noticeable increase in the feedback and contingent praise from the teacher towards Michael.

**Figure 3: Michael- Decreasing Verbal Aggression and Increasing Compliance**

## Fair Pair Countoon Data



### *Shaun*

Shaun was a male student in the third grade. He had difficulty when he performed less than perfectly, received negative feed-

back, or was not deemed to be right. Intermittently he would not transition from one activity to the other without finishing a task. During these times, Shaun became verbally and

physically aggressive define as telling the teacher no in a stern and loud tone, yelling at other students and the teacher, throwing his pencils or books across the room. The behavior occurred daily at different levels of intensity. Though Shaun was able to identify the signs of stress, he was not able to successfully calm or remove himself from the situation before it escalated. As he had difficulty with his ability to self-manage and required teacher directives before discontinuing an undesired behavior, an externally controlled eKidTools tool was selected to use. The target behavior to be reduced was aggression defined as yelling, throwing items, and pushing. The student chose to use the Point Sheet tool

(Figure 4). Shaun received points after each activity for (a) following a schedule, (b) accepting help with anger, or (c) following teacher directions. A point sheet is a type of token economy. When implemented consistently, token economies have shown to be effective classroom interventions (Higgins, Williams, & McLaughlin, 2001). The target behavior was reduced by the reinforcement of incompatible and adaptive behaviors. During times when Shaun became very angry he was prompted to move to a predetermined “safe place” in the room. Shaun was able to purchase activities with his points throughout the week.

**Figure 4: Shaun’s Point Sheet**

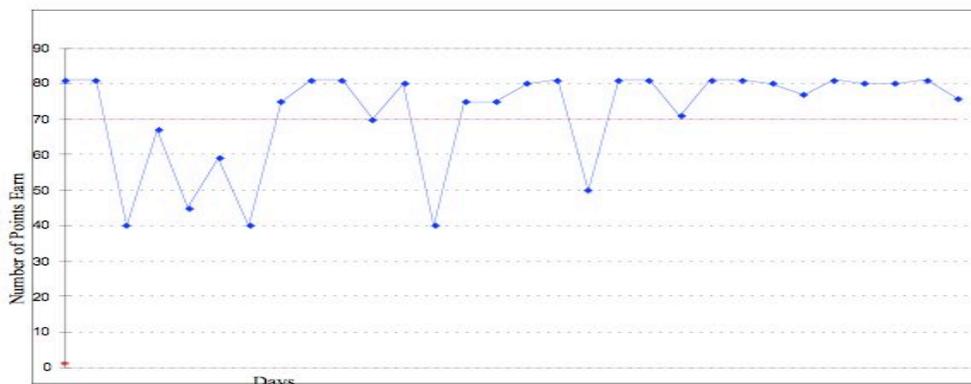
Behaviors		1	2	3	4
		Follow teacher direction	Completes Assignments	No Arguing	
Classes					
A	Bellwork				
B	Reading				
C	Specials				
D	Lunch				
E	Math				
<b>TOTALS</b>					
<b>Points Saved</b>		<b>Points Earned</b>		<b>Points Used</b>	

The eKidtools Point Sheet tool intervention proved successful. Figure 5 shows a graph with the number of points earned when the Point Sheet tool was implemented. The Point Sheet facilitated opportunities for the

teacher to provide reinforcement to the student. Paired with a high degree of structure and high rates of positive praise, Shaun was able to remain in the general education classroom and learn self-management techniques.

**Figure 5: Shaun- Decreasing Aggression by Increasing Compliance**

## Point Sheets



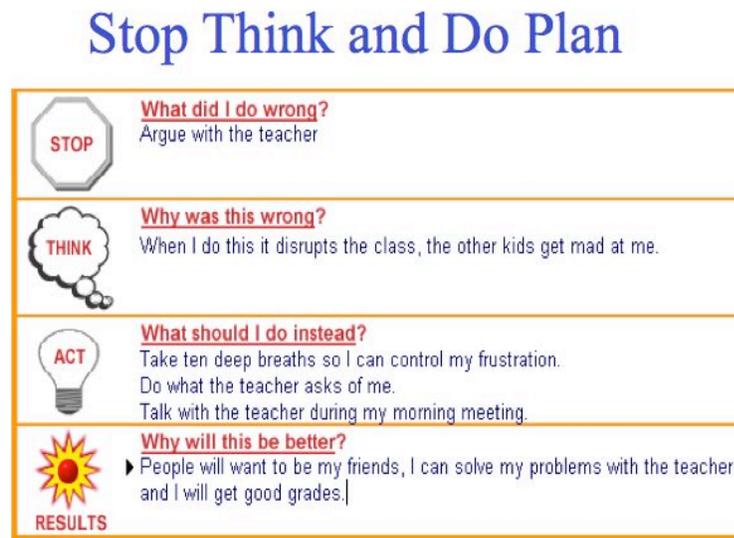
### *Travis*

Travis was a fifth-grade male student in a general education classroom. He was a highly intelligent student who had a difficult time trusting adults. He was diagnosed with attention deficit hyperactivity disorder and was not taking medication. High rates of movement and impulse control problems frequently led to losing his place on assignments and becoming off task. When redirected to be on-task, Travis often became verbally aggressive and stated that he is being “singled out” by the teacher. The target behavior was verbal aggression defined as denying that he was engaging in the off task behavior the teacher was attempting to redirect, accusing other students of the behavior instead of himself, and stating that the teacher was picking on him. The behavior occurred multiple times throughout the day, frequently enough that the IEP team was considering a more restrictive placement. The student, with guidance, chose to use the eKidTools Stop Think and Do Plan tool (Figure 6). Stop, Think, and Do plans

have been shown to be viable interventions for teaching problem solving (Day, Murphy, & Cooke, 1999). For Travis, a cueing system was created and used to signal the student to look at and use the Stop Think and Do Plan. The use of the tool was paired with a daily teacher conference. The purpose of the conferences was to build a relationship with the teacher and facilitate the opportunity to discuss issues Travis had during the day.

The eKidTools Stop Think and Do Plan intervention proved successful. Figure 7 illustrates the marked increase of intervals without argumentative behaviors. The intervention offered Travis the support needed to improve his behavior and be successful in a general education setting. The conferences provided opportunities to build trust with the teacher and the Stop Think and Do Plan intervention helped him self-manage his impulses. The behavior plan allowed the teacher to instruct the student on appropriate coping strategies and reinforce the student for using the strategy.

Figure 6: Travis' Stop, Think and Do Plan

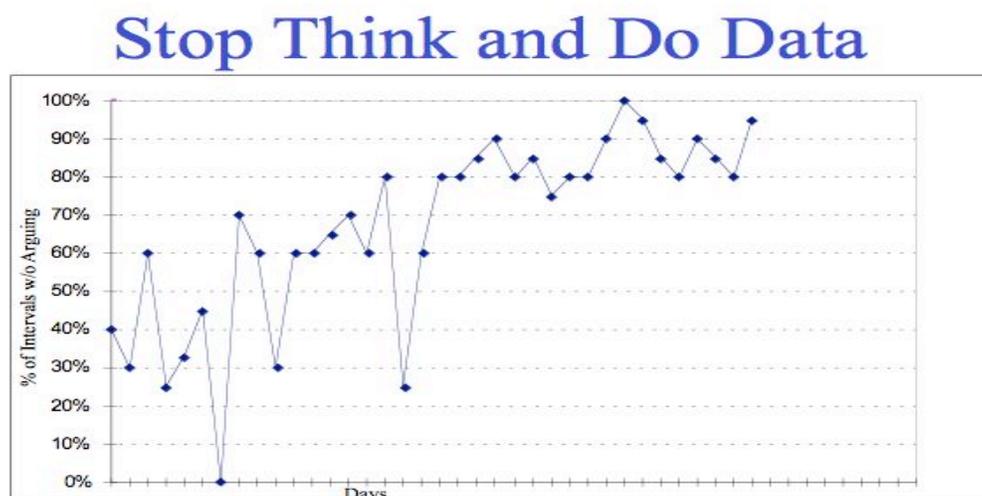


### Conclusion

Student comments on the eKidTools tools were overwhelming positive. Travis noted, “This is the best behavior program I have ever had.” One of Michael’s peers commented when seeing the program, “Wow! I have to get myself one of those!” The ongoing positive accomplishments of Shaun al-

ludes to the potential long-term success of using eKidTools as an intervention to teach student how to self-manage and improve their behavior. At last check, Shaun is taking advanced courses at a local middle school and playing on the school basketball team.

Figure 7: Travis- Percent of Intervals w/o Verbal Aggression (Data Collected during Math class)



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*Final Thoughts*

eKidtools tools were the central components in guiding the interventions and monitoring success. With teacher guidance, the students were able to use the software tools to develop their own behavior program. The students took ownership of their behavior, developed their self-management skills, and attained the support needed to meet their

needs and remain in the general education setting. Figure 8 outlines six steps for effectively implementing eKidTools. The steps provide practitioners a guide for designing and implementing self-monitoring intervention plans using the eKidTools software. For further support on implementing eKidTools, access the teacher resources at <http://kidtools.missouri.edu>.

**Figure 8: Six Steps to Implement eKidTools**

<p style="text-align: center;"><b>Step 1</b> <b>Discuss Setting/Task Demands</b></p> <ul style="list-style-type: none"><li>• Teacher and student Identify behavior to change.</li><li>• Teacher and student discuss the replacement behavior.</li><li>• Make sure the student can verbalize what he/she needs to do to be successful.</li></ul>	<p style="text-align: center;"><b>Step 4</b> <b>Provide Guided Practice</b></p> <ul style="list-style-type: none"><li>• Students use software to create their own tool.</li><li>• Students are guided by the teacher or assisted in creating a tool.</li><li>• The guided practice assures correct software usage and strategy application.</li></ul>
<p style="text-align: center;"><b>Step 2</b> <b>Introduce the Software</b></p> <ul style="list-style-type: none"><li>• Teacher introduces the software to the student.</li><li>• Teacher shows the students how to enter content and navigate the software.</li><li>• Allow time for the students to “play” with the tools.</li></ul>	<p style="text-align: center;"><b>Step 5</b> <b>Provide Independent Practice</b></p> <ul style="list-style-type: none"><li>• Students use their behavior tool with support throughout the day.</li><li>• Students enter system and print new card each morning.</li><li>• A new tool can be created when behavior goals have been met.</li></ul>
<p style="text-align: center;"><b>Step 3</b> <b>Model and Demonstrate</b></p> <ul style="list-style-type: none"><li>• Teacher pre-selects tools appropriate for the selected behavior.</li><li>• Teacher creates tools soliciting student input while demonstrating how the software works.</li><li>• Display the finished products.</li></ul>	<p style="text-align: center;"><b>Step 6</b> <b>Facilitate Generalization</b></p> <ul style="list-style-type: none"><li>• Teacher discusses life situations where students can use the strategy learned.</li><li>• Teacher encourages strategy use outside of the classroom.</li><li>• Teacher moves from external control to shared control to internal control as the student develops skill.</li></ul>

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