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Social Skills Training in Natural Play Settings: Educating Through the Physical Theory to Practice

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Abstract

Social skills are prerequisite to academic performance and success in school. Training of these skills is particularly important for students with emotional and behavioral disorders (EBD) who have social deficits and struggle maintaining appropriate and accepted behavior in and outside of the classroom. Educating through the *physical* model is a social skills training program delivered in natural settings of physical activity and play. Designed for elementary special education teachers and physical education teachers, this article introduces the Educating Through the Physical Model and illuminates its merit as a natural-setting social skills intervention. Primarily the article extends theory to practice by sharing a sample of activities that can be implemented to target 12 behavioral goals that are included in the model for enhancing students' social skills.

Keywords

social skills, EBD, physical activity, play, applied behavior analysis

The route to academic success includes the acquisition and display of appropriate *social skills*. This term refers to competencies that enable an individual to interact positively with the environment, thus providing access to positive responses and avoiding negative ones (Elliott & Gresham, 1991). These competencies allow children to satisfactorily adapt to the social environmental demands. In school settings, these demands require children to interact with

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Elian Aljadeff-Abergel, Department of Psychology, 253 I Wood Hall, Western Michigan University, Kalamazoo, MI 49008-5439, USA Email: Elian.aljadeffabergel@wmich.edu counterparts, work independently, positively interact with teachers, and appropriately accept feedback (Gresham, Sugai, & Horner, 2001). The aforementioned social skills are often considered learning-related skills and are vital prerequisites for academic learning. Thus, students who have deficits in the social domain are at risk for peer rejection, demotivation to learn, and academic failure (McClelland, Morrison, & Holmes, 2000).

Children who lack social skills need to be trained in a structured manner and be presented with situations where the learned skill is to be used. In addition, they need to be exposed gradually to increasingly socially complex situations, continuing to display the previously learned social skills. A particular group of children who are especially prone to social deficits and who could greatly benefit from social skills training are students with emotional and behavioral disorders (EBD). Children with EBD typically lack age-appropriate prosocial behaviors. They rarely interact positively with their classmates, have difficulties maintaining appropriate classroom behaviors, and struggle in almost all academic subjects (Cumming, 2010; McClelland et al., 2000). Outside the classroom, children with EBD lack the ability to fit behaviors to social expectations or develop relationships with peers and adults (Cumming, 2010). It is important that social skills interventions for children with EBD be provided at an early age to remedy delays and set the foundation for learning readiness and academic success (Cumming, 2010; Hester, Baltodano, Gable, Tonelson, & Hendrickson, 2003).

Social skills interventions target various clusters of social abilities, such as cooperation, assertion, responsibility, and self-control (Elliott & Gresham, 1991). Examples of empirical social skills interventions are the Positive Behavior Support program (Horner, Sugai, Todd, & Lewis-Palmer, 2005), Promoting Alternative Thinking Strategies (PATHS; Kusche & Greenberg, 1994) and the CARES program (cooperation, assertion, responsibility, empathy, and self-control; Elliott & Gresham, 1991). These programs include various lesson plans targeting many social skills. The programs are classroom-based, often imitating insidethe-classroom situations that occur outside, in natural settings. For that reason, a social skills program that operates in a natural setting could contribute to the acquisition of those competencies under real-life contingencies. Furthermore, considering the difficulties children with EBD have in making friends and playing with others, a programmed intervention in a structured natural setting could help them cope better with these challenging situations, and facilitate transfer of learning to other similar natural settings. One such program is Educating Through the Physical (ETP; Eldar, 2008; Eldar & Ayvazo, 2009), which capitalizes on children's enjoyment in physical activity play (PAP) settings.

This paper extends the ETP model by providing a sample of short physical activity teaching segments called *scripts* that can be used to teach social skills for children with EBD. To provide context for the scripts and facilitate understanding, the authors will provide a short introduction to the model and its rationale. The model as presented in this article is designed for special education elementary teachers (K–5) who seek to provide their students with authentic social skills training in a natural setting. The article can also serve elementary physical educators who have students with EBD in their classes.

The Educating Through the Physical Model

The ETP model was inspired by Arnold's (1988) conceptualization of educating *about* movement, *in* movement, and through movement. Children learn about the world through playing and moving. They enjoy participating in activities and games, and playtime comprises an essential part of their daily activity (Eldar & Ayvazo, 2009; Kostelnik, Whiren, Soderman, & Gregory, 2009). In school, children's passion for activity and play is evidenced in their voluntary involvement in movement whenever allowed. They independently initiate games, be it soccer or tag, and exploit every minute of recess to use the playground equipment. All of these authentic situations in natural settings invite social interactions and challenges. However, children are not always able to demonstrate fair play that requires social skills such as putting effort into accomplishing tasks, coexisting with other classmates, and demonstrating respect and abiding by the rules (Vidoni & Ward, 2009).

Due to the favored context on one hand and the social practice opportunities on the other, the ETP model argues that physical activity play (PAP) functions as a vehicle to promote student learning of social skills. Eldar and Ayvazo (2009) presented eight characteristics of PAP settings that qualify it as a context conducive for social skills' acquisition and change. These characteristics are detailed in Table 1. The entire rationale of ETP is explicated in Eldar and Ayvazo.

Preliminary findings also support the adoption of the ETP model. Investigations of the model employed a singlesubject research methodology and utilized behavioral strategies to target social skills development in different PAP contexts. Sharpe, Brown, and Crider (1995) implemented a sportsmanship physical education (PE) curriculum to foster social skills development of third-grade students. They also examined generalization into the classroom. The research design was multiple baseline across classes. The graphical presentation of the findings showed desirable behavioral changes in all dependent variables. Students' off-task behavior decreased. Leadership and appropriate conflict-resolution behaviors increased. The behavioral change was maintained in the classroom when the public posting procedures implemented in the PE setting were used in the classroom as well. More recently, Eldar, Hirschmann, and Elran (2008) implemented the ETP model with highly disruptive elementary

Characteristic	Description
Preferred setting	PAP represents a preferred setting that increases children's motivation to engage and participate. When playing and being active, children report feeling challenged, "good," fit, and with better self-esteem. They welcome the break from academic demands and enjoy the opportunity to socialize.
Easily adjustable	PAP is easily modified. Children independently modify the activity to their needs to increase the pleasure and challenge. Modification of learning tasks in a pleasurable context, when programmed well by teachers, can produce valuable social outcomes.
Distinct and repetitive activities	PAP involves distinct and repetitive activities. Repetitive performance is vital for learning. When the monotonous performance is conducted within an exciting context, it is enjoyable for children. In addition, children as sport fans recognize and therefore tolerate the repetitive nature required in sports.
Rules and consequences	Children tend to adhere to the rules when playing, as violation may prohibit access to the enjoyable game.
Visible performance	Performance in PAP context is clearly visible, thus allowing for direct observation of the desired behavior. The visibility allows not only for immediate feedback but also for imitation between peers.
Measurable outcomes	PAP involves measurable outcomes (e.g., running speed, score) as an integral aspect of the activity. These outcomes are therefore accepted by the children and can also serve for performance evaluation criteria.
Frustrating situations	PAP is filled with frustrating situations (e.g., missing an easy shot) that often trigger inappropriate behaviors. It can constructively serve as a fertile setting for coping with such demands. Appropriate programming and systematic exposure to gradually more difficult situations can help students develop desired self-control skills.
Competition	PAP involves competition that stirs emotions (e.g., anxiety, joy). Children should be taught and prepared to deal with competitive situations. PAP allows for programming of developmentally appropriate and progressive competition that can nurture healthy growth of social skills such as accepting win or lose, respecting others, and controlling temper.

Table 1. Eight Characteristics of Physical Activity Play (PAP) Setting

students (10 to 12 years old). Participants received social skills training in PE. Once students' inappropriate behavior (e.g., talking without permission) decreased in the PE setting, cognitive tasks were gradually infused into the practice. Students were asked to take a seat in front of a desk (imported into the PAP setting) and complete the assigned cognitive task. To maintain students' motivation, the cognitive task was preceded and followed by a PAP activity. When proficient performance was achieved in that setting, the teachers continued supporting the targeted behaviors within the classroom setting. Eldar et al. (2008) reported reduction of inappropriate behaviors, enhanced learning time, and successful generalization into the classroom. The behavioral improvement was maintained after the intervention had been concluded.

How the Model Operates

The ETP model is based on an applied behavioral analytic paradigm (Eldar, 2008). Behavior analysis targets the improvement of socially significant behaviors. The behavioral change is programmed via the alteration of the antecedents and/or consequences that occur before or after the behavior, as well as manipulation of the behavior itself. One dimension of behavior analysis is generalization of the learned behavior to natural settings. These principles of behavior analysis underpin the five phases of the ETP model (the phases and the curricular goals are presented in Figure 1):

1. Functional assessment-performed to identify context and situations in which socially inappropriate behaviors occur and analyze the consequences that maintain these behaviors (e.g., attention, escape from demand). Various strategies can be implemented to detect behavioral patterns, depending on the teacher's skills and resources. Teachers can conduct descriptive assessment by directly observing the behavior in the natural setting (e.g., playground) and identify the most reoccurring antecedents and consequences related to maladaptive behaviors. Teachers who are more skilled in behavior-analytic procedures can conduct a brief functional analysis by introducing short scenarios in which the presence and absence of variables such as demand and attention are sequentially altered (Eldar, 2006; Wallace & Knights, 2003). Hypothesis

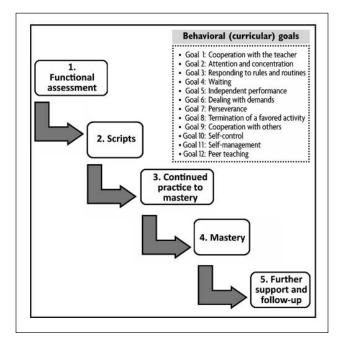


Figure 1. The Educating Through the Physical model: The five phases and its 12 behavioral (curricular) goals.

made about the behavioral function is based on the collected data.

- 2. Scripts-children learn target social behaviors through participation in PAP scripts. These scripts are short teaching segments (up to 5 minutes long) that together compose a full lesson plan (30 to 45 minutes) targeting specific behavioral goals (i.e., social skills). The scripts are based on the preliminary functional assessment and entail a systematic presentation of specific antecedents, consequences, or both. The scripts (i.e., activities and games) expose students to situations in which they had difficulties in the past and that typically had resulted in a declined, passive, or aberrant behavior. When presented with this situation in the favored context, the teacher models the appropriate reaction, using the proper-targeted social skill. Students role-model the skill and then practice the demonstration of the appropriate response during the script. The scripts can be delivered to individual students or to small groups of students (Eldar, 2006) on the playground or in any open space that allows movement. Effective delivery of the model can be achieved when conducted twice a week; more frequent practice would enhance the behavioral change.
- Continued practice to mastery—similar to cognitive or psychomotor objectives, mastery criteria should be set for each behavioral goal practiced.

The criteria could be qualitative or quantitative. For example, when targeting compliance, a possible criterion could be: The student will demonstrate full compliance and no refusals during three consecutive scripts.

- 4. Generalization—the generalization of the learned social skills to other contexts (e.g., classroom, home) is vital and can be achieved via various strategies. Teachers can infuse academic tasks into the physical activities, as previously demonstrated in Eldar et al. (2008). Teachers can also use supporting cues (e.g., green and red cards that indicate appropriate/inappropriate behavior) that would later be transported into the classroom. If the physical educator is the one implementing the model, generalization can be promoted by inviting the classroom teacher to participate in the instructional setting and later support the use of the learned skills in the classroom setting.
- 5. Further support and follow-up—acquisition of social skills is not instant and requires ongoing support and evaluation of progress. Teachers should be observant and continue to reinforce the display of adaptive behaviors, celebrate the emergence of additional untrained social skills, and periodically present previously practiced scripts to strengthen maintained skills.

Additional discussion about the theoretical foundation of the model and procedures and implementation guidelines can be found in Eldar (2008) and Eldar (2006).

Goals and Activities

The model targets 12 behavioral (or curricular) goals. These goals guide the scripts' practice. All goals, scripts associated with them, and other aspects that require attention when delivering the activities are summarized and displayed in Table 2.

Before implementing the instructional content, the teacher should use up to three sessions to focus primarily on establishing rapport with the students and creating a supportive learning atmosphere. These sessions should include highly preferred activities that provide ample opportunities for success and increase motivation to participate (Eldar, 2006).

Teachers can include all behavioral goals in their curriculum or focus only on selected ones, based on students' needs and deficits. The progression in the model is spiral; that is, when the student demonstrates mastery of one goal (e.g., success level of 80% or more in three scripts), he or she progresses to the next goal while continuing to practice and strengthen the previously mastered behavior. To adequately deliver the model, the teacher should (a) explain the target

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Behavioral goal	Game/activity and game format	Synopsis	Equipment and organization	Difficulty levels	Examples of reinforcements	Data collection
Cooperation with the teacher	Shuttle run Individual and/or small group	Students travel to the turning line according to the teacher's instruction (e.g., running, hopping), touch it with their hand and return to the start line	Four cones to mark the start and the turning line (30 feet away)	More instructions More complex instructions	"Great job! I really like how you follow my instructions precisely and immediately."	Event recording of following instructions or not following instructions
Concentration and paying attention	Ship Ahoy! Individual and/or small group	The playing area mimics ship's zones: bow, stern, starboard, and portside. Teacher announces a zones and sailors (i.e., students) travel as instructed	Four cones or signs to mark the zones	More instructions Action substituted with a number (e.g., 1 is running, 2 is side-stepping)	"Excellent! You paid attention to my instruction and did not get confused."	Event recording of the number of times the student accurately followed instruction
Responding to rules and routines	10 passes Small group	Students need to pass the ball 10 times	Four cones to mark the playing area I-3 foam balls	One team (no opponents) Adding rules (e.g., resetting counting when ball touches the floor) Resting a score upon rule- violation Adding opponent team	"For following all of the game's rules— the blue team earns one more point! Good job blue team!"	Event recording of the number of rule infractions
Waiting	Relays Small group	Student travel to the turning line, touch it with their hand, and return back. The next student goes out to perform only after receiving a hand- touch from the returning student. Students travel in different forms as instructed by the teacher (e.g., running, hopping)	2-4 students in a single file lineCones to mark the start and the turning line (30 feet)	Increase number of students in a group Increase the attractiveness level of the in-game activity Add interfering stimuli	"Perfect! You are all waiting so patiently, controlling your temper and keeping your hands to yourself."	Duration recording of waiting appropriately
Independent performance	Stations practice Individual and/or small group	Students perform activities in each station as instructed by the teacher and rotate to the next station according to a signal	4-7 stations marked by cones Task cards to describe the station's activity Equipment required for each station	Decrease the frequency of teacher's attention or feedback Increase difficulty of stations (more strenuous activities) Decrease attractiveness of stations (activities without objects)	"Great job!! You worked independently for three minutes without needing me!"	Duration recording of independent work time

Table 2. Educating Through the Physical—Examples of Games and Activities

(continued)

Behavioral goal	Game/activity and game format	Synopsis	Equipment and organization	Difficulty levels	Examples of reinforcements	Data collection
Dealing with demands	Treasure hunt Individual	Less preferred academic demand (e.g., reading) infused into a treasure hunt game. Receiving a clue for finding the treasure is contingent on completion of the academic demand (e.g., reading one sentence of a story)	Plan a treasure hunt: treasure and clues Design the academic task to be completed Prepare guiding questions that will aid comprehension and also lead to finding a clue	Increase difficulty of the academic demand (e.g., longer sentences to read)	"Super work!! You dealt with the task and read two pages by yourself! And found the treasure!!"	Event recording of the times the student successfully coped with the demand
Perseverance	Treasure hunt Individual	Same as above	Same as above	More advanced stories More sentences to read	"Fantastic look how much you have read! You did not give up and read the entire story."	Duration recording of the time the student persisted in the task
Termination of a favored activity	Atternating soccer activities with reading exercises Individual and/or small group	Students playing a soccer game (i.e., favored activity) for 2-4 minutes and then transition to a less-favored activity	One ball for the game Four cones to mark two goals Materials required for the academic task to be performed outside of the playing area	Ending the favored activity at peak moments to transition to the less- favored one Extending the time engaging in the less-preferred activity Limit the time engaging in the preferred activity	"Thank you for stopping the play immediately."	Event recoding of the times the student demonstrated inappropriate behavior upon transition to less favored activity Duration recording of the total time that took the student to transition
Cooperation with others	All together now Small group	Two students wedge a balloon between their bellies and travel from the start to the end line without dropping the balloon	Four cones to mark the start and the turning line (30 feet) One item for two students (e.g., balloon, foam ball) Dyads standing on the start line	Incorporating competition between teams Changing the teams composition (from friends to nonfriends) Increase number of players to carry an item together	"Excellent cooperation between you two. That is why you finished the game first."	Duration recording of the total time the student displayed cooperation with others

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Behavioral goal	Game/activity and game format	Synopsis	Equipment and organization	Difficulty levels	Examples of reinforcements	Data collection
Self-control	Catch my scarf Small group	Students tuck a scarf in the elastic waist band, with a tail showing. Their objective is to catch as many scarfs as possible	One scarf per student Four cones marking the playing area Students are scattered in the area	Confiscating scarves due to rule infraction without prior notice Giving and/or taking scarfs away with no clear explanation Increase size of playing area to increase the physical demands	"Thank you for giving John two scarfs without fussing.This is self- control!"	Event recording of the times the student lost control
Self- management	Boot camp workout Individual and/or small group	Students perform fitness activities such as jumping rope, sit-ups and push-ups	Set the area and the equipment required for the activities (e.g., jump ropes) Prepare log forms for students to record performance	Gradually shift more responsibility to students (recording performance and setting goal)	"What a self- management. You are now at the level of setting your own goals and also meeting them.Well done!"	Event recording of the times students demonstrated the targeted self-management behaviors (e.g., setting personal goal)
Peer teaching	Hot-Cold Two students or more	Pairs try to find an object hidden in the playing area. The tutor leads his/ her friend to the hidden object using the words <i>cold</i> (i.e., you are too far), <i>warm</i> (you are getting closer) and <i>hot</i> (i.e., you are very close to the object).	Hide an object (e.g., rubber chicken) in the playing area Switch roles after each round	Tutor provides feedback in addition to instructions Randomly pair students (rather than allowing pairing by friendships)	"I like your peer- teaching! Look how quickly you were able to lead Adam to my mystery rubber chicken."	Event recording of the times student exhibited appropriate tutoring behaviors

Lesson nur	nber of lessons Date	:
Target soci 1. Concent	al skill: ration and paying attention	
	ocial skills mastered: oeration with teacher	
Script #1: S	Shuttle run (1 min)	
Student's name	Social skill: Cooperation with teacher	Total
John	+++++	5
Brian	+++	3
Emma	+++++	6
Script #2: F	Relays	
Student's name	Social skill: waiting	Total time
John	10 sec; 23 sec; 8 sec	01.03 min
Brian	5 sec; 7 sec; 8 sec	00.20 min
Emma	15 sec; 20 sec; 45 sec	01.15 min

Figure 2. A generic data collection form.

behavioral goal to the students, (b) model the behavior and then allow students to role-model it, (c) design multiple opportunities to demonstrate the behavioral goal during the scripts, (d) congruently reinforce the behavior practiced, and (d) monitor and document students' performance. Monitoring performance could be conducted using event recording, where the teacher records every occurrence of the target behavior, or using duration recording of the behavior. An example for a generic data collection form that can be used in the PAP or the classroom setting is presented in Figure 2.

Goal 1: Cooperation with the teacher. Scripts to achieve this behavioral goal should contain high rates of instructions and opportunities to follow them. The teacher should begin with simple requests (e.g., eyes on me) and gradually increase the complexity or difficulty of the requests. Reinforcement for following instructions should be delivered immediately after the student's response. Practicing the behavior in the context of a favored activity together with immediate congruent reinforcement will increase the likelihood the student will continue to follow instructions in the future. The teacher could document improvement in performance by measuring if students respond more promptly, respond more accurately, and/or continue to exhibit the behavior over time. An example of an activity script is the shuttle run with rapidly alternating instructions. In a shuttle run, students travel from one line to another and back, with or without an object, while the teacher delivers high rates of requests. The competitive dimension of the shuttle run promotes a fast response to the instructions, allowing the teacher to reinforce this aspect of behavior. Successful completion of the activity is based on completing the number of iterations required but mostly on prompt and accurate response to the teacher's instruction. Providing more instructions during the shuttle run activity will extend its duration and allow students multiple opportunities to follow the teacher's directions.

Goal 2: Attention and concentration. The scripts implemented to attain this goal teach students how to remain focused on relevant stimuli, such as the teacher's demonstration, while ignoring distractions (Eldar, 2006). The teacher should praise students for their ability to remain focused and avoid confusion or distractions. The game Ship Ahoy! (Landy & Landy, 1992) is an example for teaching attention and focus. The playing area is a ship, students are the sailors, and the teacher is the captain. At the beginning of the game, the teacher explains the ship's areas that are marked by color-coded cones or cards (i.e., bow, stern, starboard, and portside). The teacher announces and points at the area to which sailors should quickly travel. The next level would include visual prompts for forms of traveling to the announced area (e.g., hopping, jumping). A more complex level involves adding action signals. When announcing radar, students would need to run with their hands up and make beeping sounds, and when *crow's nest* is heard, they would need to climb on any object in the area to elevate themselves. The teacher can further increase the level of difficulty by eliminating prompts, using numbers to indicate the action required (e.g., one instead of radar) and visually presenting the numbers instead of announcing them (promotes improved eye contact with the teacher). With advanced students who demonstrated high level of concentration, the teacher can also add interfering stimuli, such as background music (Eldar, 2006).

Goal 3: Responding to rules and routines. To achieve this goal, the teacher presents games that contain complicated rules and routines and emphasizes the precision required in following the rules (Eldar, 2006). To promote generalization, the teacher should link between rules of the activity and real-life rules designed to achieve order (e.g., just like a soccer player should adhere to the referee's rules, in life we need to follow teachers' and parents' rules). In general, any game in which rules and routines can be gradually presented and practiced could facilitate the learning of this behavioral goal. An example is the 10 passes game. At the entry level, the game can be played with one team, following a single rule of completing 10 passes. Additional rules can be introduced gradually, such as prohibiting movement with the ball, adding a competing team, resetting the count if the ball touches the ground or if an opponent touched the ball, or changing possession after any inappropriate contact (e.g., pushing) with an opponent.

Goal 4: Waiting. The purpose is to teach students how to restrain their behavior and act appropriately and patiently in waiting situations. Level of difficulty of the waiting practice can be intensified by increasing the waiting duration and/or the attractiveness of the in-game activity, adding external distracting stimuli and providing ambiguous instructions for the turn-taking in the game. A classic script to teach waiting behavior is *relay*. Students are grouped in teams, stand in a single-file formation behind the starting line, and wait for their turn to complete a run. The more students in the team, the longer is the waiting time for their turn. One student from each team runs to the end line and back; the next student can begin the run only upon receiving a *high-five* from the returning student. Praise is given to students who wait appropriately for their turn according to the teacher's expectation.

Goal 5: Independent performance. This goal refers to students' ability to work independently without immediate attention or feedback from the teacher (Eldar, 2006). This behavioral goal is essential as students are expected to complete in-class assignments or homework independently without continuous adult support. The teacher's feedback should directly address students' ability to work independently. Increasing the level of difficulty would entail a gradual increase of the time that elapses from the onset of independent-work behavior until the teacher provides attention or feedback. An activity conducive for practicing independent performance is *stations practice*. The teacher sets four to seven practice stations. Each station contains a task to be performed individually and the criterion for success (e.g., perform 30 trials of each of the jump rope tricks displayed). All stations should be modeled to the students. The stations could involve use of objects that may increase students' motivation to persevere in the task (e.g., balls). An example of a set of four stations includes (a) throwing a ball to a target on the wall from various distances, (b) moving a medicine ball in a figure-eight pattern around the feet, (c) shooting a ball to a basket, and (d) feet-dribbling around cones. Activity time could initially be 30 seconds per station, with feedback on one's ability to practice independently provided after each station. Next, feedback will be provided only after two stations work, and so on. Gradually, feedback will be provided only at the completion of a whole round (i.e., four stations, 2 minutes) and later after a few rounds of work. To promote generalization to other settings, the teacher could infuse academic work stations, such as a math worksheet, between two physical activity stations.

Goal 6: Dealing with demands. To attain this goal, students participate in tasks that gradually increase in difficulty. The students are taught to identify and appropriately cope with the demand. The demand can be cognitive (e.g., reading task), emotional (e.g., losing situation), social (e.g., sharing), and/or physical (e.g., abdominal crunches). With the gradual exposure to difficult and aversive situations, students experience desensitization, as the aversive tasks are combined with pleasant activity and with success (Eldar, 2008). A *treasure hunt* is an example. Instructions are presented as a requirement to move to the next step toward the treasure, which is hidden in the playing area. Students who have challenges with reading, for instance, will be asked to

read a sentence that contains a clue that will help them progress another step towards the treasure. Using the story Winniethe-Pooh and Some Bees (Milne, 1993) as an example, the first instruction would be to read the first sentence: "Here is Edward Bear, coming downstairs now, bump, bump, bump, on the back of his head, behind Christopher Robin" (p. 1). After successfully reading this sentence, the teacher will present a lead question: "Where is Winnie the Pooh coming from?" The answer "downstairs" verifies the student's comprehension but is also the clue for where to proceed (i.e., stairs) to find the next clue. At the stairs, another reading sentence will be waiting for the student, and the same process will be repeated until the discovery of the treasure. When students successfully overcome the difficult demand, it is important to praise their effort for doing so in an appropriate manner and congratulate them for their success.

Goal 7: Perseverance. Perseverance is an extension of the behavioral goal dealing with demand (Eldar, 2006). The difference between the two goals is the time when the student needs to deal with the aversive stimulus, before or during the task. The previous goal included identification of the demand and confronting it, rather than escaping from it. In perseverance, students are taught not to give up but to continue coping with the demand for an extended time and despite the increase in difficulty. Using the *treasure hunt* activity suggested previously, the teacher can teach perseverance by providing longer or more complicated reading passages. Students should be praised for continuing to read without giving up.

Goal 8: Termination of a favored activity. Through termination of a favored activity and transition to a less preferred one, students learn to remain calm and accept the cessation of a game while controlling their temper (Eldar, 2006). A lesson targeting this goal should include constant alternations between favored and less favored activities. Hence, the teacher should identify the more and less preferred tasks, be it academic tasks (e.g., silent reading, coloring), managerial tasks (e.g., cleaning one's desk), or physical tasks (e.g., completing running laps). The teacher's feedback should pinpoint students' ability to stay calm when the favored activity is terminated. Consider the following script that is designed for students who presumably enjoy playing soccer but often escape academic exercises. Activities are presented from the easiest situation to the most difficult one. The progression through the levels of difficulty depends on the students' ability to remain calm at any current level. At beginning levels, students will play a soccer game for 2 to 4 minutes; then they will be asked to transition to another activity, less favored, such as a soccer drill of kicking a ball to the wall. In the next level, the teacher will stop the game intermittently at critical moments, such as right before one is about to score, to transition to a less-favored activity. A higher level of difficulty will include not only ending the game at exciting moments but also transitioning to an activity that is even less preferred, such as completing an academic task prior to returning to the game again. From this point, level of difficulty can be gradually increased by extending the time students engage in the less preferred activity and/or by asking specific students to cease the game to complete academic work while the others continue to play.

Goal 9: Cooperation with others. This goal develops students' ability to cooperate with others to accomplish complex activities. Games and physical activities can be easily modified to teach the students how to cooperate with each other (Eldar, 2006). For instance, the teacher can modify basketball game rules so that shooting will be contingent on passing the ball between all team players. Level of difficulty within this stage can be gradually increased by (a) requiring students to complete more complex social tasks, (b) incorporating competition between teams, (c) changing the teams' composition and increasing number of players, and (d) emphasizing and reinforcing victory. An example script is the game All Together Now. In this game, two students wedge a balloon between their bellies when their objective is to move from the starting line to the end line and back without dropping the balloon. The game requires cooperation between the peers and consideration of the other's traveling pace. The game can be made more difficult by changing the rules of how the item should be carried (e.g., contact with back only) or modifying the objects to be carried (e.g., beach ball, tennis ball), as well as by adding more students and more balloons to the same group. It is important to help students to make the link between their cooperation and success in the game.

Goal 10: Self-control. Although self-control is indirectly practiced throughout the model, it is also included as a discrete behavioral goal aiming to enhance students' ability to cope with more complicated self-control situations. The ultimate goal is to teach students how to deal with a conflict situation when an adult (e.g., teacher) is not present (Eldar, 2006). Thus, scripts are predesigned to expose students to increasingly frustrating situations. One way of teaching students self-control is to let them play favored games and constantly and randomly change or add contrived rules to these games. Students will need to deal with vague and unexpected rules that may result in frustration and rules that purposefully delay their chances of winning. For example, in Catch My Scarf, students tuck a scarf in the elastic waist band so that a "tail" is showing. The students travel in the playing area and attempt to catch the scarf of another player, and to accumulate as many scarves as they can. Rules in this game can be modified to increase frustration: (a) confiscating scarves due to rule infraction (e.g., student exited the boundaries of the playing area) without prior notice or (b) giving to or taking scarves away from students noncontingent on prestated behavior.

Goal 11: Self-management. Self-management includes the students' ability to self-control and also to solve problems,

set goals, take responsibility, and self-administer consequences. It is important to ensure students' proficiency in all previous model components, especially independent learning and self-control, before teaching self-management (Eldar, 2006). Activities to promote self-management should incorporate one or more of the following strategies: setting goals for the activity, recording one's progress, choosing activities, and taking part in delivering the activities. The level of difficulty is increased by gradually providing students more responsibility, such as setting goals and recording progress. A Boot Camp Workout that includes activities such as jumping rope, sit-ups, and push-ups can facilitate teaching self-management. During initial phases, the teacher will prescribe the practice tasks and set the goals students should achieve. Students will be responsible for recording their performance and reporting back to the teacher. Next, students will begin setting personal goals in addition to their previous responsibility. Ultimately, students will choose the activities, set their goals, record their performance, and set new goals for improvement.

Goal 12: Peer teaching. After students have learned to achieve their own personal goals, they can begin helping others (Eldar, 2006). Students who have already learned to take responsibility on their performance are now extending their accountability to others by guiding peers, demonstrating for them, and providing them feedback. Practicing peer-teaching skills can help students who struggle in the classroom to build self-confidence by giving them the opportunity to help others in the PAP setting (Eldar, 2006). Activities executed with more than one student and that can accommodate the tutoring roles are most suitable for practicing peer teaching skills. One of the favorite games is Hot-Cold. The purpose of the game is for the pair to find an object that was hidden by the teacher in the playing area. The teacher reveals the object's location to the tutor, who is then to lead his or her friend towards that location using the words cold (i.e., you are too far), warm (i.e., you are getting closer), and hot (i.e., you are very close to the object). The tutor should be encouraged to provide feedback, respectfully, on the tutee's performance. The teacher should praise tutors for their tutoring skills and explain the link between the tutor's feedback and the peer's success (e.g., "Adam was able to complete this task because of your help!").

Summary and Discussion

The ETP model presented in this article addressed the need for interventions that allow social skills practice in natural settings and under real-life contingencies for students with EBD. The unique characteristics of the PAP setting and children's natural participation in this environment make it a fruitful context for social behavioral change. Teachers who wish to provide authentic social skills practice can implement the various sample scripts presented in this article or, conversely, utilize the model as a framework to guide game modification and to facilitate practice of specific social skills that are in necessity. Stemming from functional behavior assessment and measurement of behavior, the behavioral goals selected to be practiced via the model can be included in a behavioral intervention plan or an individualized education program. Participating in this unique practice would certainly differ from the classroom training students typically receive and would effectively compliment ongoing programs. Finally, such training may be especially functional for those students who, despite their social deficits, are skilled movers and/or exceptionally enjoy participating in PAP.

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References

- Arnold, P. J. (1988). *Education, movement and the curriculum*. London, UK: Falmer.
- Cumming, T. (2010). Using technology to create motivating social skills lessons. *Intervention in School and Clinic*, 45(4), 242–250.
- Eldar, E. (2006). Educating through the physical—Procedures and implementation. *International Journal of Behavioral and Consultation Therapy*, 2(3), 399–414.
- Eldar, E. (2008). Educating through the physical—Behavioral interpretation. *Physical Education and Sport Pedagogy*, 13(3), 215–229.
- Eldar, E., & Ayvazo, S. (2009). Educating through the physical— Rationale. *Education and Treatment of Children, 32*(3), 471–486.
- Eldar, E., Hirschmann, M., & Elran, E. (2008). A unique physical education curriculum—Supporting classroom management.

- Elliott, S. N., & Gresham, F. M. (1991). Social skills intervention guide: Practical strategies for social skills training. Circle Pines, MN: American Guidance Service.
- Gresham, F. M., Sugai, G., & Horner, R. H. (2001). Interpreting outcomes of social skills training for students with highincidence disabilities. *Exceptional Children*, 67, 331–344.
- Hester, P. P., Baltodano, H. M., Gable, R. A., Tonelson, S. W., & Hendrickson, J. M. (2003). Early intervention with children at risk of emotional/behavioral disorders: A critical examination of research methodology and practices. *Education and Treatment of Children, 26*(4), 362–381.
- Horner, R. H., Sugai, G., Todd, A. W., & Lewis-Palmer, T. (2005). School-wide positive behavior support. In L. Bambara & L. Kern (Eds.), *Individualized supports for students with* problem behaviors: Designing positive behavior plans (pp. 359–390). New York, NY: Guilford.
- Kostelnik, M. J., Whiren, A. P., Soderman, A. K., & Gregory, K. M. (2009). *Guiding children's social development and learning* (6th ed.). New York, NY: Delmar.
- Kusche, C. A., & Greenberg, M. T. (1994). *The PATHS curriculum*. South Deerfield, MA: Channing-Bete.
- Landy, J. M., & Landy, M. J. (1992). Ready to use P.E. activities for grades 3-4. West Nyack, NY: Parker.
- McClelland, M. M., Morrison, F. J., & Holmes, D. L. (2000). Children at risk for early academic problems: The role of learningrelated social skills. *Early Childhood Research Quarterly*, 15, 307–329.
- Milne, A. A. (1993). *Winnie-the-Pooh and some bees*. New York, NY: Penguin Group.
- Sharpe, T., Brown, M., & Crider, K. (1995). The effects of a sportsmanship curriculum intervention on generalized positive social behaviors of urban elementary school students. *Journal* of Applied Behavior Analysis, 28, 401–416.
- Vidoni, C., & Ward, P. (2009). Effects of fair play instruction on student social skills during a middle school sport education unit. *Physical Education and Sport Pedagogy*, 14(3), 285–310.
- Wallace, M. D., & Knights, D. J. (2003). An evaluation of a brief functional analysis format within a vocational setting. *Journal* of Applied Behavior Analysis, 36, 125–128.