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Including Student Voice in the Design Process
Amy Stevens Griffith and Peggy B. Gill

Abstract: Addressing educational change through systems design allows disciplined inquiry into the complex and emerging social structures of this dynamic system. One such method, narrative story, provides a way to examine the historical and current-lived practice of those engaged in the educational system. As a design conversation, it encourages the participation of all levels of the organization in creating a living narrative. This paper addresses how narrative story can be used to engage students within the system in developing that narrative, providing the construct within which to examine students’ perspectives. Ten at-risk students from 7th through 12th grade participated in the study, with the intention of making school a better place for all students. This paper examines these stories and their implications in the design process. It also examines narrative story as an appropriate social discourse in creating and sustaining educational systems that contribute to human betterment for all students.

Introduction

A rural school district in Texas has engaged in a systems change process over the past four years. During this time, the district has, as part of that process, addressed the need to incorporate student voice in the design conversations. Of particular interest was how to incorporate the needs and views of students marginalized by the traditional system. These students, whose needs were not being met effectively by the current system as evidenced by placement in alternative education environments (either on their home campus or at an alternative campus), school failure, and/or repeated discipline referrals, were engaged in narrative inquiry as part of the design conversation process.

Design conversations (Jenlink, 2002) occur within a particular community of educators and stakeholders engaged in a social process of constructing and reconstructing meaning. Within this disciplined inquiry process, the participants’ interpreted purpose and meaning bind the dynamics of organizational change. This meaning and purpose may be focused and delineated through examination of the personal stories of those involved in the process. Rather than deal with discrete events individually, the personal stories evolving through narrative inquiry allow people to build larger frames of reference and to examine the underlying assumptions and beliefs guiding their actions. It is a natural way to explore the meaning of systems operating within such social constructs as an educational community.

Organizational change, examined within a systems theory frame, may be viewed as a meaning-making process as relationships are negotiated within a social context. Organizational meaning and purpose are individually and collectively constructed and reconstructed as the system continuously builds organizational capacity and engages in design and implementation processes (Jenlink, 2002). As part of this accountability process, the Texas school district studied here recognized the need to reduce the dropout rate. Students who had been repeatedly suspended for infractions of the disciplinary code and who frequently dropped out of school were targeted as a population whose needs were not being met in the traditional high school program.

The term at-risk typically focuses on the school dropout but can also be applied to those students in school who exhibit academic failure, abuse substances, are eligible for special education services, have lower socioeconomic status, or exhibit suicidal behaviors (Manning & Baruth, 1996). In conjunction with these factors, the district identified the five areas of academic failure, personal pain, family socioeconomic factors, family instability, and family tragedy as significant in these students’ lives (Frymier, 1992), realizing that while the schools can directly impact the first two areas (Splittgerber & Allen, 1996), family instability and tragedy may be impacted indirectly through integrating community and social services in the school setting.

The profile of the at-risk student in the school district included a significant history of disciplinary referrals including short-term suspensions or expulsion. Many states have mandated that school districts develop alternative education programs as a step toward eliminating these two approaches. In Texas, legislation requires that districts provide a separate alternative educational setting for students removed from the classroom for disciplinary reasons (Texas Education Code 37.008). In this alternative placement, students are separated from the regular educational setting and provided appropriate academic instruction to maintain their current course load along with counseling services.
to develop more appropriate behaviors. Students return to their home campuses after a review by a District Placement Committee. However, even though much time and effort was spent addressing the needs of at-risk students with significant discipline problems, students continued to experience behavior and academic problems on their return to the high school campus. Farrell, Peguero, Lindsey, & White (1988) explored the stories of such high school students, while other research has examined the voice of students with behavioral disorders (Crowley, 1993) and learning disabilities (Heshusius, 1984) in relation to their perceptions about instruction and teacher attitudes. However, no research is currently available focusing on the perspective of students marginalized by the traditional school system in their transition from the alternative school to their home school.

Framework: Students’ Multiple Worlds Model

In this article, we describe how one group of at-risk students experiences the public high school during their transition from a disciplinary alternative school to their home campus. The Students’ Multiple Worlds Model developed by Phelan, Cao, and Davidson (1992) provides the framework for exploring this transition. This model identifies four patterns of adaptation that students employ as they transition across social settings:

1. **Congruent Worlds/Smooth Transitions**: Values, expectations, and rules between home/community and school are consistent, facilitating the transition between environments.

2. **Different Worlds/Border Crossing Managed**: Some inconsistencies exist between the values, expectations, and rules of home/community and school, but the transition between environments is managed.

3. **Different Worlds/Border Crossing Difficult**: Significant incongruities in values, expectations, and rules exist between home/community and school, making transitions problematic, but attempts continue to be made to function in both worlds.

4. **Different Worlds/Border Crossing Resisted**: Home/community and school have incongruent values, expectations, and rules, and little or no attempt is made to assimilate.

This model was developed to address the transition process of adolescents moving from family and social settings into the school and classroom setting. However, it has not been used to examine the experiences of students transitioning between contexts within the school setting. Specific areas meriting study include: (1) How do students who have been placed in a disciplinary alternative setting view the transition process when they return to the home campus? (2) Do they have successful strategies for moving from one setting to the other? (3) Are they able to adapt and reorient as the movement across contexts occurs? (4) From their perspective, what factors influence the success or failure of the transition?

The study reported here used the Students’ Multiple Worlds Model as a framework within which to examine the following questions: (1) What do students identify as the most significant problems and issues as they transition from alternative school to regular high school? (2) What features in the classroom or school environment assist students in making a successful transition? (3) What are the social, emotional, and educational implications of the student’s experience of the transition process? Gaining the student perspective on these issues allows educators to address students’ needs appropriately, thereby increasing the likelihood of a successful reintegration into the home campus setting.

**Constructing the At-Risk Students’ Worlds**

At-risk students exist in many worlds: They are members of a family, a peer group, a school culture, and a community. It is necessary to explore the entire sociocultural context of students’ lives in order to gain insight into their perceived experience and, thus, their realities.

This study examines how at-risk students perceive the reality of the school experience using constructivist theory. This theory, based on the premise that people construct their own understandings of the world through interaction with problems, objects, and others (Prawat & Floden, 1994; Reynolds, Sinatra, & Jetton, 1996), suggests that reality cannot be separate from one’s perception of it (Rhodes, 1987). From the social constructivist perspective, social interaction within socially bounded contexts is a primary consideration in how learning occurs. In this context knowledge is socially shared rather than a possession of a single individual. From such a perspective, the voice of at-risk students is crucial in examining the transition process from alternative setting to home campus.

**Method**

Interviews of students transitioning between school contexts provided the data used in this study. Within the social sciences, the interview process is recognized as a process of systematic inquiry (Colaizzi, 1978; Holstein & Gubrium, 1995; Kavale, 1993; Polkinghorne, 1989). Set in the social constructivist framework, the interviewing process and its subsequent outcomes become social productions. Both the interviewer and the participant actively shape the form and content of what is said (Holstein & Gubrium, 1995), meaning the interviewer monitors the ideas and feelings being expressed as well as the relationship between the interviewer and the participant.

The 10 students interviewed attend school in a small, rural school district. These subjects included 9 males and 1 female ranging from 13 to 18 years of age. The ethnic composition included 4 African-American, 3 Caucasian, and 3 Hispanic students. The community is predominantly Caucasian (60 %), with African-Americans and Hispanics each making up approximately 20 % of the population. In recent years, the African-American population has remained stable, while the Hispanic population has increased and the Caucasian population has decreased. The district has a single high school that houses grades nine through twelve, an alternative school (ACE) serving students with serious disciplinary offenses, and an academic alternative school (PRIDE) for students who wish to further their education but are not successful under the traditional academic program.

Students assigned to ACE must stay at least 12 weeks before returning to the home campus. Core academics and counseling are provided to all students while attending this school, and a transition...
coordinator is assigned to monitor all students during their transition to the home campus.

Ten high school students who had recently returned from alternative school placement for nonviolent offenses participated in semiformal individual interviews (see Appendix for prompts) over a period of approximately three months. Originally, interviews were to be audi-taped, but because several students were uncomfortable with that process, notes were taken during the interviews. Students were asked to review the notes with the interviewer to check for accuracy and understanding.

Each interview session was held in the high school conference room. While a few guiding questions were asked to encourage students to focus on the experience of transition, students directed the conversation. Probes were offered to encourage elaboration and to ask for specific examples. Because both the transition coordinator and ACE counselor had established relationships with the 10 students, they reviewed the interviews to check for authenticity and consistency within the student comments. In general, the students appeared to speak freely, and the interviews are believed to be good representations of their perceptions.

The objective was to create a description of student experiences during transition in relation to negotiating both the boundary crossings within the school settings from alternative school to home school and the boundaries between family or community and school. Skill at negotiating the boundaries between family or community and school was used to type the students, with the four types of adaptation patterns in the Students' Multiple Worlds Model serving as the initial framework for examining the data. Students were interviewed, and their responses were used to type their patterns of adaptation when transitioning between worlds.

Although the themes identified from the interviews shed light on the complicated experiences of students crossing borders between educational programs, this is a small pilot study with a small sample size. In addition, interviews were with students in one school site in a rural area of Texas. Future research should explore the experiences of more students from a variety of regional settings. Further, placement offenses and recidivism were not considered and, thus, are areas to consider in future studies. However, although limited, the experiences of the students involved provide insight into their worlds as they maneuver through educational environments.

The themes emerging from these student interviews offer a descriptive structure for the complex experiences of the students. Although these themes provide an overall understanding of the information, excerpted quotes are included here to maintain richness and to allow the students' voices to speak.

**Findings**

**Different Worlds/Border Crossing Managed**

In the interviews, all of the students indicated some degree of difficulty with the transition process and could not be identified as having congruent worlds with smooth transitions. Each student indicated differences between the home and/or peer group world and the school world that complicated the transition from ACE to the home campus. However, two students were managing the border crossing. Three themes emerged when students appeared to be managing the transition process without significant upheaval. First, these students had a record of average to above average academic ability with a history of positive experiences with school personnel. Second, most of their problems that had resulted in ACE placement had occurred outside of the school environment. Finally, these students voiced a strong sense of personal control over the outcome of their transition. Students who had found a way of belonging in the school community either through academic ability or athletic ability were comfortable in the return process, describing themselves as having value in the school. For instance, Shaun, an African-American 10th grader, commented that:

"I'm no different than other students. I know most of the teachers, and we get along pretty good. I made good grades. They know the person I am and I know them. Teachers can tell who you are. The teachers are nice and don't show favoritism. I'll probably get a scholarship. I'm a pretty good athlete too, so maybe that will help."

The managers of transition, although acknowledging that peers might make remarks about their having been to ACE, dismissed these comments. Reggie, an African-American junior, was clear that other students' behaviors were not going to control his when he reported, "Some people will try to mess with your head and bring you down. But it's just up to you. Don't get me wrong. Some people can get to me. They'll say, 'You've been to ACE!' But it's all up to you."

**Different Worlds/Border Crossing Difficult**

Four themes emerged among the six students who saw their worlds (family, peer, community and/or school) as distinct from few commonalities and who experienced difficulty transitioning between school placements. First, all of these students had a history of marginal academic performance, each having either been retained in school or failing courses in high school. References to marginal academic performance were frequently accompanied by explanations. Larry, a Caucasian freshman who had been retained twice and was repeating his freshman year, was clear that he felt overwhelmed by the academic requirements. However, he saw himself as successful in other areas of his life. He related:

"I don't want to fail. I just get bored sitting. I don't like to sit at a desk. They give you a lot of homework. It's hard to adjust. I just can't pass. I asked a friend for help. She (the teacher) wouldn't help me, but then I got in trouble. I made a whole lot of money last year doing taping and bedding. But then they made me come back to school. I want to pass."

Second, these students reported few positive interactions with adults on the high school campus. Although adults associated with school were generally viewed negatively, students were able to identify at least one on campus who was a positive force. Colby, a Caucasian 9th grader who had failed 7th grade, was continuing to struggle:

"School is a terrible place. They treat you like a bad kid. Like they'd call me out of class and threaten to tell Ms. H. (transition coordinator). When you're bad, they know. But one teacher is really nice. If the other kids start talking about ACE, she'll tell them to stop."
To be quiet. I don’t like everyone knowing I was in ACE.

Hector, an Hispanic 10th grader with a history of gang involvement, found school a difficult environment:

Some of the teachers are all right. Most of them don’t do anything. They didn’t even know I was gone (to ACE). So when I came back, it was the same. The high school is really bad. My counselor is nice. She calls me in sometimes just to talk. She doesn’t care if I’ve been to ACE. She just wants me to stay in school. But it’s hard.

Third, these students voiced a feeling of persecution in the school setting. Students saw rules as impossible standards to meet and administrators and teachers as the enforcers of these impossible standards. Peers were equally untrustworthy. Jose, an 11th grade Hispanic student, described administrators:

They’re always watching you. They really get on your nerves, you know. Mr. J. (the principal) was always there. When there was a fight, or about to be a fight, he called me out. I wasn’t even there. Between classes, he was always there. I don’t know. You got to be perfect. You can’t get in any trouble the whole semester. The principals are looking for ways to get you in trouble. They really get on your nerves.

Not only were rules presented as impossible standards to meet but also they were applied differently to different students within the school. Michael, an African-American 11th grader, spoke with passion:

They have different rules for different people. I don’t know why, but they’re different. I know for sure that when K. (a girl friend) wore that dress to school, they called her Momma, and she had to go home and change. But T. was a cheerleader, and she wore the same dress and they didn’t do anything to her. I mean, I saw it. It was the exact same dress. And she wore it all day. She even wore it a couple of more times. Now, I didn’t see anything wrong with the dress. But it’s not right to send one girl home and let the other one stay. I know they have different rules.

Colby, the 9th grade Caucasian student who felt teachers treated him like a bad kid, also saw rules as being enforced differently. “They watch you all the time. They treat you different. Like I got in a fight and they called my parents, but they didn’t call his parents. And that’s not right. They should treat all kids the same.”

Finally, the problems reported by these six students experiencing difficulty with the transition tended to cluster in only one world (family, peer community, or school). Larry was working in home construction with his father after school and on weekends and had a small group of friends that enjoyed skateboarding. Colby participated in a local afterschool program for at-risk students. Jose and Hector, both first-generation immigrants, had strong support within the Hispanic community. Although both indicated some ties to local gangs, they were not reported to be gang members. Cody, a Caucasian 7th grader, worked after school for an area rancher taking care of cattle.

He described the rancher as “a good guy, who really lets me learn about stuff.” Michael was a promising athlete in his 9th grade year, but after problems with drugs and illegal activities in the community, he was dropped from the athletic program. He is still struggling with these problems and is enrolled in a community program for drug abuse. He maintains contact with his football coach and hopes to rejoin the team.

Different Worlds/Border Crossing Resisted

Two students were unsuccessfully transitioning to the home campus. Themes of hopelessness, defeat, and anger emerged from their interviews. These students had poor academic skills, identified no adult support on the regular campus, and were experiencing difficulties in more than one world (family, peer, community, and/or school).

Eddie, a slender, soft-spoken African-American 10th grader, had a history of drug abuse and an identified learning disability. His mother was in jail, and in the past year, he had lived with three different family members. He told his story of failure with little emotion:

The teachers at high school don’t really care about you. Well, some do, but most won’t help you with your work and the classes are really noisy. Everybody is talking, and I can’t concentrate, and I get in trouble. They could keep the classes quiet if they wanted to. They just don’t care. I ask for help, and they just tell me to do it. I can’t do it. But they don’t care. The administrators just send you to detention. They don’t help. You need to just do your work and stay out of trouble. But you can’t do that because nobody will help you.

Angie, a seventeen-year-old Hispanic 9th grader, missed 98 days the previous year. She and her mother fight frequently about her dating the leader of one of the local gangs. Problems at home have compounded problems at school, and she cannot concentrate on her schoolwork. Under court order, she is attending school with more regularity than in the past, but she is not engaged in the educational process:

I don’t care what happens at school. I just do my work. All people think I’m gonna be bad. All my friends are bad too. I’ve been arrested and locked up. I was locked up for a month. I want to prove people that they’re wrong. I don’t fight in school. I just don’t come. I like to party and have a good time. I’m not bad, but people think I am. It’s just that they won’t let me see him (her boyfriend), so I leave school and go with him. It’s not school.

Conclusions and Implications

What They Tell Us

The 10 students interviewed in this study identified difficulties in at least one of the four worlds of family, peer, community, and/or high school. As they moved back to the regular campus, these problem areas became issues of concern in the transition process. These findings indicate that in addition to academic instruction and counseling, an alternative disciplinary setting should begin planning efforts to address student-identified areas of concern impacting the transition.
process. Listening to the voices of these 10 students suggests four avenues of early intervention to support successful transition between a discipline campus and a home campus: individual student interviews, exploration of school district alternatives, interagency planning and collaboration, and professional development training.

Interviews. Each student assigned to an alternative discipline center should be interviewed to identify his or her perception of the problem areas prior to transitioning out of ACE. Students in this study were anxious to talk to someone about their problems. Every time the researchers came to the school, students asked to be interviewed, with the refrain, “Miss, Miss, can I talk to you today?” echoing repeatedly in the hallway. The transition coordinator checked with teachers and administrators about student progress, but the students themselves were involved only after a problem occurred. At ACE, the students developed relationships with teachers and identified many of the problems that surfaced in this study. However, there was no formal plan for transition or systematic involvement of students in the planning process.

Exploration of school district alternatives. Although these students had a history of academic difficulties, only one had been referred for assessment to determine the need for special education services. Information from student interviews, along with information from cumulative folders, provides a starting point to begin exploring alternatives within the school district that may allow a student to be successful. Students who have been assigned to a discipline center may have underlying learning or emotional disabilities that have been undetected because of behavior and/or attendance problems. As a result of this study, two students, Hector and Colby, were referred for assessment to determine the need for special education services. Both students had learning disabilities and qualified for additional assistance through special education.

Larry, the 17-year-old 9th grader, completed a self-referral to the accelerated academic program. With the shortened school day (four hours) and individual pacing, he has less difficulty completing his work. He continues to work with his father and would like to have his own painting business after graduation.

Interagency planning and collaboration. All the students involved in this study had complex situations that are not easily addressed. Although most of the students were involved with the juvenile justice system and/or the local mental health agency, coordination of these efforts tended to be at the administrative level without teacher, parent, or student input. There was no single plan or case management system in place that could ensure a focused, collaborative effort. Student interviews provide a natural vehicle for case management. Students become co-managers of their cases, using their knowledge about the agencies and people working with them individually to participate in the decision-making process. Training and practice, provided during placement in the alternative discipline center, allows each student to assume the role of self-advocate.

Professional development for staff. Students repeatedly referred to staff insensitivity to their situation. Only in rare cases did these 10 students see teachers or administrators as understanding the difficulties they faced returning to high school. Conversations need to be held about these obstacles, addressing specifically how teachers can help students returning to the high school campus, which teacher behaviors are helpful and which are detrimental, how administrators can be both supportive and responsible for a safe and orderly environment, and what role peers play in the process. Until teachers and administrators begin talking about these issues, at-risk students in transition are likely to continue to experience difficult, uncertain, and resistant boundary crossings.

Personalized instruction. The students participating in this interview process showed great insight into their educational needs. Eddie’s insight was particularly astute. The ACE program he was in provided small classrooms with five to seven students per teacher. Instruction was individualized in order to meet the diverse needs across the curriculum. Staff was available to work individually with students and time was provided to discuss personal issues or concerns either in group or individual counseling. Eddie, a student with a learning disability, experienced success both academically and socially in the ACE program. However, he returned to a high school and a system that did not meet his needs.

Before going to ACE, Eddie thought that he was the problem, that he was dumb and just could not learn. In one of the final interviews, he sat quietly at the table, eyes down, rolling a pencil back and forth as he spoke:

The teachers in ACE helped you with your work. And everybody worked, so it was quiet. Can you help me get back there? I know it’s supposed to be for bad kids, but I could do my work. Nobody helps me here. Can you help me get back there?

Eddie can articulate what he needs: quiet and individual assistance. He cannot achieve these without help. The interview process, exploration of school district alternatives, interagency collaboration, staff development, and personalized instruction can help provide the program he needs to succeed. His transition can be a success. We can help Eddie, and others like him, “get back there.”

References
Guiding Prompts

1. How do you feel about returning to the high school?

2. What factors in the school or classroom have helped you make the transition from alternative school to the high school?

3. What factors at home or in your community have helped you make the transition from alternative school to the high school?

4. What factors have made it harder for you to be successful as you return to the high school campus? These could be things in the school, the classroom, your home or your community.

5. In your opinion, what could the teachers and school leaders do to help students returning from alternative placement?
Using Stress Balls to Focus the Attention of Sixth-Grade Learners
Sheryl Stalvey and Heather Brasell

Abstract: This pilot study investigated the effects of allowing sixth-grade students in a rural south Georgia school to use stress balls during direct instruction and independent practice. Data from learning style inventories, surveys, journals, teacher observations, and formal assessments were collected for 29 sixth-grade students in a language arts class. Students were videotaped and observed for three weeks before the intervention and for seven weeks when they used the stress balls. The frequency of distraction incidents decreased during both direct instruction and independent practice when students used stress balls. Kinaesthetic learners used the stress balls more consistently and their attention spans increased more when compared to other learners. Student achievement on writing paragraphs improved. Based on journal entries, all types of learners thought that their attitude, attention, writing abilities, and peer interaction improved due to stress ball use.

Introduction

Developing a supportive classroom environment where a large number of adolescents can focus their attention on instruction without excessive distractions is a constant challenge for teachers. Some students create disturbances by attending to their own needs for movement, distracting other students, and compromising the learning environment (Carbone, 2001). Students who create management challenges include, but are not limited to, those who have Attention Deficit Hyperactivity Disorder (ADHD). Many middle-grades students have a short attention span. They may pay little attention to details, make careless mistakes, not listen when spoken to directly, not follow instructions, fail to finish tasks, have difficulty organizing tasks, avoid tasks that require sustained mental effort, lose things, or be forgetful.

Attention and learning go hand in hand. Mayes, Calhoun, and Crowell (2000) found learning disabilities in math (numerical operations) and reading (reading comprehension) were more prevalent among children with ADHD, and problems with written expression were twice as common. Even 7-year old children who were inattentive without being overactive and impulsive were more likely to have general cognitive delays, particularly in language development (Warner-Rogers, Taylor, Taylor, & Sandberg, 2000).

Although having a short attention span has a substantial impact on an individual student’s engagement, productivity, and learning, it does not necessarily compromise the learning environment for other students. Hyperactive and impulsive behaviors (American Psychiatric Association, 1994), however, are more likely to adversely impact the ability of other students to concentrate on learning. Students may exhibit sensory defensiveness, responding to certain harmless situations as if they were dangerous or painful and become angry when they are forced to comply with classroom expectations (Ward, n.d.). Impulsive and uncontrolled behaviors disrupt the learning environment in the classroom. It is difficult for teachers and students alike to ignore a hyperactive student who fidgets, squirms in the seat, moves around the classroom at inappropriate times, has difficulty working quietly in groups, and talks excessively. It is also a challenge for teachers to encourage oral contributions from shy and quiet students while discouraging impulsive behavior of students who blurt out answers, interrupt others, and refuse to wait their turn. Disruptive behavior interferes with teachers’ ability to differentiate instruction and includes children with disabilities (Mitchem & Downing, 2005).

Students who take more than their share of the teacher’s time and who constantly disrupt instruction are often resented and rejected by their classmates (Stevens, 1997; van Liere, Muthén, van der Sar, & Crijnen, 2004). Corrections and punishments result in a negative spiral of increasingly inappropriate behavior. Establishing positive relationships with teachers and peers is very important in the prevention and management of disruptive behavior (Mitchem & Downing, 2005; van Liere et al., 2004). Any management strategies that make it possible for these students to function effectively without distracting other students will reduce their sense of isolation and rejection by their classmates.
Due to the difficulty students with ADHD have making and keeping friends, effective behavior strategies should be taught so that social interaction can be strengthened (Buchoff, 1990). In order for students with ADHD to be successful in school, they should be taught effective strategies that focus on learning (Salend & Rohena, 2003) and produce positive social interactions.

Although children with ADHD have long been treated with stimulant medication, physicians believe that both parents and schools over-refer children for ADHD (HaileMariam, Bradley-Johnson, & Johnson, 2002). Instead they recommend behavior management at home and school. Recommendations for effectively managing behavior problems in the classroom often focus on improving students’ executive functioning by teaching intrinsic strategies for self-monitoring and self-controlling their behavior (Traynor, 2002). For instance, Ardoin and Martens (2004) found that self-evaluation combined with accuracy training decreased the disruptive behavior of four students with ADHD. Shukla-Mehta and Albin (2003) described specific practical strategies to prevent behavioral escalation in classroom settings. In addition to common sense suggestions for teachers, several recommendations focus on encouraging students to take more responsibility for their own behavior. These include the importance of offering students opportunities to display responsible behavior, teaching them socially appropriate behavior to replace problem behavior, teaching them survival skills that will increase success, and helping them understand the triggers for their problem behavior.

Students’ learning styles affect their attention, behavior, and academic performance (Pyryt, Sandals, & Begoray, 1998). Although students with ADHD encompass all of the learning styles, kinesthetic learners with ADHD have substantial problems with attention span (Mayes et al., 2000). This is not surprising because they have a strong need for stimulation and movement and often appear to be driven by a motor (Carbone, 2001). Kinesthetic learners also have a very strong need to move while they learn; they are often highly successful in drawing and activities that require movement (Salend & Rohena, 2003). When these students beat or drum on their desks and move excessively, they interfere with the attention of auditory and visual learners. The visual learners need to be able to concentrate to visualize concepts in their minds. They seem to learn best from demonstrations and graphic organizers. The auditory learners need to listen to explanations without interruption and talk to each other without distractions as they construct understanding and solve problems (Brain Power, n.d.). Kinesthetic students need to be able to move and at the same time be quiet, focus on instruction, and not distract others (Pica, 1998). It is these two seemingly contradictory needs that make these behaviors so difficult for a teacher to address effectively.

In a single class taught by one of the authors (Stalvey), a sixth-grade language arts teacher, several students exhibited frequent and intensely distracting behaviors. Recommended strategies for effective classroom management (Hallowell, 1992), such as giving additional attention, using frequent eye contact, ignoring the misbehavior, providing correction for negative behaviors, providing praise for on-task behavior, and providing increased structure and frequent reminders, were unsuccessful in reducing distractions. In five minutes, one student exhibited 17 off-task behaviors, such as repeated facial tics, changes in body language, getting out of the seat, playing with hair or other objects, beating on the desks, and making vocalizations. However, when he was given a stress ball to manipulate, he appeared to maintain better focus on the lesson and to participate appropriately in class discussion.

This experience was intriguing. Would stress ball use affect not only kinesthetic students, but also other students in the classroom? As this research began, Dr. Shepard, a professor at Thomas University, shared two anecdotes of very positive stress ball experiences (personal communication, Oct. 17, 2003). In both situations, the students chose the stress ball and used it continuously. In one case, a teacher was skeptical about allowing a student to use a stress ball during a test. She took the ball away from the student, and the student was upset and told the teacher, “I listen better when I am holding my ball.” The teacher allowed the student to hold the ball while completing the test, and to her amazement the score was the highest the student had earned the whole year. In another case, the other students in the classroom made sure the student who needed the stress ball was encouraged to use it. They recognized a positive change in behavior when the student used the stress ball during direct instruction (Shepard, personal communication, Oct. 17, 2003).

These classroom observations were initially surprising because many guidelines for modifying instruction for students with ADHD include suggestions for creating a stimuli-reduced environment (Georgia Department of Education, 2002) and avoiding overstimulation (Hallowell, 1992). However, some research findings may provide some explanation. Majorek, Tuchelmann, and Heusser (2004) found that children with ADHD, provided with movement therapy, improved motor development, concentration ability, and attention. In a different study on the effects of finger movement on brain stimulation, the amount of stimulation increased when students chose to move their fingers themselves (Thickbroom, Byrnes, & Mastaglia, 2003).

In addition to enabling constructive and complementary connections between movement and cognition, the physical exercise may be effective in itself. Hallowell (1992) claimed that one of the best treatments for ADHD is exercise, preferably vigorous exercise. He suggested that exercise helps work off excess energy, helps focus attention, and stimulates production of certain hormones and neurochemicals that are beneficial. Although classroom teachers cannot often allow vigorous exercise during instruction, manipulating a stress ball may function as an escape valve for the need to move. A similar effect can be observed with computers, which offer a powerful aid to overcoming distractions and short attention span (Stevens, 1997). In addition to providing visual stimulation, computers offer students tactile and kinesthetic participation that triggers “hyperfocus” mechanisms: students become totally absorbed in whatever activity is on the screen.

It is important to control distractions in the learning environment for students with ADHD, but this does not necessarily mean reducing stimuli. Some researchers have found that appropriate music can help students concentrate. Stevens (1997) described a student who was able to concentrate on easy, routine worksheets only when he had loud rock music playing through his headset. The music provided him with a sense of isolation. However, if the task involved higher-level processing, the rock music drowned out his mental processing. Instead, soft, repetitive music, such as sounds of nature, helped him to focus his attention. Thus, the recommendations might be interpreted...
by the classroom teacher to indicate that they should reduce stimuli in the external, peripheral environment. However, other personalized and task-oriented stimuli may provide an attention-funneling mechanism, increasing on-task engagement.

Using stress balls may also help students to develop some control over their own behavior. Elementary children with behavior problems pay attention and learn more effectively when they have increased opportunities to respond verbally (Sutherland, Alder, & Gunter, 2003) and participate with written responses (Lambert, Cartledge, Hewerd, & Lo, 2006). By providing students with an appropriate method of coping with fidgety and impulsive behavior, the teacher is reinforcing calm on-task behavior, teaching the students socially appropriate and responsible behaviors to replace the problem behavior, and helping students to recognize triggers in time to divert their disruptive behavior (Shukla-Mehta & Albin, 2003). By learning such survival skills, the students are more likely to focus their attention in class and develop more positive relations with peers and teachers.

The language arts teacher has a great responsibility to help students build a strong writing foundation for lifelong learning. Teachers need to provide effective learning environments so that students can pay attention and focus on instruction in order to achieve their learning goals. This pilot study describes the effect of stress ball use on attention span, writing scores, and student attitudes toward task completion. There were three research questions.

**Research Question 1.** What is the effect of stress ball use on the attention span and distraction level of auditory, kinesthetic, and visual learners during direct instruction and independent practice?

**Research Question 2.** What is the effect of stress ball use on writing scores?

**Research Question 3.** What is the effect of stress ball use on students’ attitudes towards task completion and to interactions with their peers?

**Methods**

**Setting and Participants**

The research took place in the only middle school in the rural South Georgia community. The 1,400 students in grades six through eight were grouped together on teams or clusters in order to encourage a “family” type atmosphere. The racial/ethnic composition of the school consisted of 62% White, 35% Black, 2% Hispanic, and 1% other. Many of the students came from fairly low socioeconomic backgrounds, with 58% qualifying for free/reduced lunch.

The sixth-grade language arts class used for this study contained 29 students—16 females and 13 males. This class was the second highest ability level on the team according to the performance on the Criterion Reference Competency Test (CRCT) math scores. According to their CRCT scores (Table 1), most of the students were average to strong academically, but not outstanding.

Students had obvious attention problems although only one had been medically diagnosed with ADHD. The students who were academically stronger were mainly auditory or visual learners (Table 2). The kinesthetic students exhibited lower grades for the class due to missing assignments and incomplete class work including notebooks. When compared to the whole group, the kinesthetic learners were weaker in completed homework and notebook organization. The student with a mixture of visual and auditory learning style and who had the lowest grade in the class was diagnosed with ADHD.

Students also completed a *Knowing the Learner Inventory* (KTL) (Gregory & Chapman, 2002) consisting of five multiple-choice and five free-response items that measure specific learning preferences. Interesting patterns emerged when these learning preferences were compared with learning styles (Table 3). Nearly all of the kinesthetic learners liked to work with music and preferred sitting around the edge of the classroom, whereas visual and auditory learners were more

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### Table 1

<table>
<thead>
<tr>
<th>CRCT Level</th>
<th>Reading</th>
<th>Language Arts</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceeds standards</td>
<td>9</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Meets standards</td>
<td>18</td>
<td>21</td>
<td>27</td>
</tr>
<tr>
<td>Does not meet standards</td>
<td>2</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

### Table 2

<table>
<thead>
<tr>
<th>Type of Learning Style</th>
<th>Number of Students</th>
<th>Average Grade for Completed Homework (%)</th>
<th>Average Grade for Completed Notebook (%)</th>
<th>First 9 Weeks Language Arts Grade (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditory</td>
<td>4</td>
<td>86</td>
<td>83</td>
<td>90</td>
</tr>
<tr>
<td>Kinesthetic</td>
<td>15</td>
<td>73</td>
<td>80</td>
<td>83</td>
</tr>
<tr>
<td>Visual</td>
<td>6</td>
<td>93</td>
<td>94</td>
<td>95</td>
</tr>
<tr>
<td>Visual/Kinesthetic</td>
<td>2</td>
<td>90</td>
<td>98</td>
<td>94</td>
</tr>
<tr>
<td>Visual/Auditory</td>
<td>1</td>
<td>15</td>
<td>33</td>
<td>71</td>
</tr>
<tr>
<td>Auditory/Kinesthetic</td>
<td>1</td>
<td>100</td>
<td>94</td>
<td>94</td>
</tr>
</tbody>
</table>
### Table 3
Comparison of Responses to KTL Inventory Questions with Learning Styles

<table>
<thead>
<tr>
<th>KTL Questions</th>
<th>Learning Styles</th>
<th>All</th>
<th>V</th>
<th>A</th>
<th>K</th>
<th>A/V</th>
<th>A/K</th>
<th>V/K</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Study preference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quiet place</td>
<td></td>
<td>9</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Music on</td>
<td></td>
<td>20</td>
<td>0</td>
<td>4</td>
<td>14</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2. Work place preference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the classroom</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>On the floor</td>
<td></td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>At the computer</td>
<td></td>
<td>10</td>
<td>1</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>At a desk (at home)</td>
<td></td>
<td>11</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>At a table</td>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3. Class work not complete because</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You forgot</td>
<td></td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>You were distracted</td>
<td></td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>It was boring</td>
<td></td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>You needed help</td>
<td></td>
<td>14</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4. Class seating preference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Near the door</td>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>By the wall</td>
<td></td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Back</td>
<td></td>
<td>8</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Front</td>
<td></td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Near a window</td>
<td></td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. Prefer to work with partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td>28</td>
<td>5</td>
<td>4</td>
<td>13</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. Time of day most alert</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morning</td>
<td></td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Afternoon</td>
<td></td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Evening</td>
<td></td>
<td>22</td>
<td>4</td>
<td>3</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. Prefer learning something new by</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explanation</td>
<td></td>
<td>11</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Video/demo</td>
<td></td>
<td>10</td>
<td>0</td>
<td>3</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Read</td>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Try itz</td>
<td></td>
<td>9</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Learning Styles are as follows: V = visual, A = auditory, K = kinesthetic, A/V = auditory/visual, A/K = auditory/kinesthetic, V/K = visual/kinesthetic
likely to prefer sitting at the front of the class. Many of the kinesthetic learners thought they needed extra help from the teacher in order to complete their class work. These patterns are consistent with research on brain function and learning styles (Brain Power, n.d.; Salend & Rohena, 2003).

**Intervention**

The learning environment was modified by providing a variety of stress balls and encouraging students to use them voluntarily during instruction. Voluntary stimulation was advocated by Thickbroom et al. (2003). On the first day of intervention, all students were allowed to feel and squeeze the stress balls, which had different textures, shapes, and colors. As the stress balls were introduced, some students appeared actually to need the stress balls to pay attention while others just played with them. During the 7-week intervention, students had the opportunity to use the stress balls at least three times each week for 30 minutes each time during writing instruction. Due to other curriculum obligations and class organization needs, 30 minutes was the longest block of time that could be given to writing instruction.

**Instruments for Data Collection**

The effects of using stress balls on student behavior, writing performance, and attitudes were observed several ways. Throughout the study, there were gaps in the data due to student absences and incomplete survey responses. Data were analyzed only when paired data were available. Wilcoxon Signed Ranks Test for paired data was used for statistical analysis throughout this study. The Z scores reported are the sum of signed ranks/square root of the sum of squared ranks. An alpha level of 0.05 for two-sided probabilities using normal approximations was used throughout the study to establish significant differences in the outcomes.

**Log of Stress Ball Use**

Stress ball use was documented with a log including the frequency of use, the selection of stress balls (colors, shapes, textures), and which students (visual, auditory, kinesthetic) chose to use stress balls. Patterns of use were noted to guide future implementation.

**Behavior Checklist**

Student behavior during direct instruction and independent practice was recorded on videotape for three weeks before the intervention as well as during the intervention. Before the intervention, three 5-minute video segments were recorded. During the intervention, twelve 5-minute video segments were recorded. In addition, extensive field notes were recorded immediately after instruction to provide records of student achievement, attention, attitude, and peer interaction. During videotaping, the camera was set up on a tripod stand. Due to the room arrangement and student seating, only five students were in view of the camera at any one time. The stand was moved around the room at five-minute intervals so that all students were taped. Five-minute segments of videotape were analyzed using a Behavior Checklist to determine the frequency of different off-task distractions: beating on desks, changes in body language, facial quiver and tics, squirming/moving in desks, playing with hair/objects, and getting out of seat. This checklist was developed by one of the authors (Stalvey) and examined for validity by three peer teacher-researchers. Systematic observations with the checklist were supplemented by teacher observations. Changes in frequency of behavior were identified and compared through the mean, standard deviation, and Wilcoxon Signed Ranks Test for paired data.

**Attention Survey**

Students and their parents completed a 20-item, alternate-choice Attention Survey adapted from the Parent Survey on Student Attention (Allen, First, Pincus, & Widiger, 1994). Responses to each item were scored as yes = 1 and no = 0. Responses to grouped statements determined perceived levels of student inattention, hyperactivity, and impulsivity. Parents completed the survey one week before the intervention started. Students completed the survey both before and after the intervention. Wilcoxon Signed Ranks Test for paired data was used to compare parent and child perceptions and to compare students’ perceptions before and after they used the stress balls.

**Distraction Survey**

The students self-assessed their concerns about being distracted in the classroom using a Distraction Survey developed by one of the authors (Stalvey) and examined for validity by three peer teacher-researchers. The four items in the survey used a Likert scale ranging from 5 = strongly agree to 1 = strongly disagree. The survey was administered before and after the intervention, and scores were compared using Wilcoxon Signed Ranks Test for paired data.

**Paragraph Evaluation Rubric**

To evaluate any effects of stress ball use on writing performance, students completed writing samples without the stress ball and then with the stress ball. The writing samples were completed as part of a three-week process of writing a research paper on a selected country. Students wrote five paragraphs in the paper: introduction, three body paragraphs, and a conclusion. Writing samples from two body paragraphs were compared, one paragraph written when students used the stress balls and one written without them. Validity concerns were reduced by collecting samples from similar paragraphs within a few days of instruction. In addition, students were given the same specific directions on how to write paragraphs, topic sentences, details, and closing sentences before each paragraph was written. The Paragraph Evaluation Rubric (Appendix) used to evaluate the writing samples was developed by one of the authors (Stalvey) and had been used by all the Language Arts teachers at the school for several years. It assessed format, clarity, appropriate introduction and conclusion, and mechanics of paragraphs. Pretest and posttest results were compared using Wilcoxon Signed Ranks Test for paired data.

**Student Journal Entries**

During the intervention period, students wrote five journal entries about their perceptions of their writing achievement, attention span, attitude to writing, and peer interaction. The journal entries were not assessed for a grade. The journal entries were supplemented by a four-item free-response questionnaire on student perceptions of their writing abilities. Emergent themes were identified from the responses.
Results

The first research question was to examine whether using stress balls would improve student behavior as a source of distractions in the classroom. The Behavior Checklist was used to compare frequency and categories of off-task distractions with and without stress ball use during direct instruction and independent practice (Figure 1). In a period of five minutes, the number of distractions for individual students ranged from 0 to 10. The severe ADHD student had the greatest number of occurrences. Kinesthetic learners exhibited more problems than did the visual and auditory learners. There were significantly fewer distractions during stress ball use. During direct instruction, the mean number of distractions for the 29 students visible for each five-minute video recording decreased from 3.4 to 0.5 ($Z = -3.988, p = .01$). During independent practice, the mean number of distractions decreased from 2.5 to 0.9 ($Z = -2.940, p = .01$). Field notes also showed an increase in student attention and decrease in distractibility.

![Figure 1. Number of distraction incidents during 5-minute intervals of direct instruction and independent practice with (SB) and without stress ball (NSB) use. Error bars indicate standard deviations.](image)

Twenty-one out of 29 parents completed the Attention Survey (Table 4). Parents did not discriminate between inattention, hyperactivity, and impulsivity ($M = 0.2, SD = 0.3$ for each symptom). Four parents said their children exhibited symptoms at home in addition to the school setting. Five parents placed the onset of symptoms of inattention, hyperactivity, and impulsivity before the age of seven. In two cases, students were identified by a parent as easily distracted although they had not been identified by the teacher.

Parent and student perceptions of each student’s attention characteristics before the intervention were moderately correlated (Pearson’s $r = 0.66$). Students generally rated themselves higher in inattention, hyperactivity, and impulsivity than did their parents (Table 4). Based on Wilcoxon Signed Ranks Test comparisons, this difference was significant only for the combined scores ($Z = 2.331, p = 0.02$).

Students’ responses to the Attention Survey before and after the intervention were compared. After their experience in using stress balls during instruction, students reported some improvement in their attention characteristics. For each category of symptoms, the scores were lower on the posttest, although this was not significant on the Wilcoxon Signed Ranks Test.

Mean responses to the Distraction Survey are fairly close to neutral (3 on the Likert scale). For the 25 students who completed the survey both before and after the intervention, there were no significant changes on items 1, 3, and 4 (Table 5). The slight increase in scores for item 2 ($Z = 2.07, p = 0.04$) indicates that students agreed more with the statement “Other students are a distraction to me” after the intervention. It seems probable that a side effect of the study was to make students more conscious of how they are distracted by other students.

The second research question focused on the effect of using stress balls on student achievement. The effect of stress ball use on writing scores was assessed using Paragraph Evaluation Rubric (see Appendix). Twenty-one students wrote paragraphs both before and after the intervention, and these were compared using the Wilcoxon Signed Rank Test. The mean writing score of the class increased from 73% to 83% ($Z = 2.54, p = .01$). The student with ADHD experienced the most gain with an increase of 27%. This supports findings by Majorek et al. (2004) who found that movement therapy for students with ADHD helped students focus and learn. The auditory group ($n = 4$) experienced a mean increase of 15% and the visual group ($n = 3$) mean increase was 10%. Kinesthetic students achieved the least increase in writing achievement with a mean increase of 8%. In their journal writings, most of the students attributed their increased ability to stress ball use.

The third research question examined whether using stress balls would affect students’ attitudes towards engagement in instructional activities and learning environment, which are clearly important in influencing learning. Attitudes expressed in student journal entries reflected generally more positive attitudes towards writing and working with their peers. However, when free responses to the writing questionnaires were compared, there was little difference between scored responses related to attention span, attitude, and peer interaction from before and after the intervention. Nineteen of the 29 students agreed that the stress ball helped them write. They indicated that the stress balls “calmed them down” and helped them concentrate better and pay attention. On the other hand, seven students thought the stress ball was a distraction during writing because they were already holding a pencil.

Discussion

The first research question targeted the effect of stress ball use on attention span and distraction level of students. According to the Behavior Checklist, the frequency of distractions decreased when stress balls were used. Data collected from student journals and field notes
helped to justify and explain the success of the intervention. Some of the entries from journals and field notes are listed below:

- “The stress ball helps me with attention and concentration.”
- “I don’t bit [sic] my nails when I am using the stress ball.”
- “My feet don’t bother people anymore.”
- “The stress ball helps to control my beating [on the desk] habit.”
- One student told another student “he sure did need to get a stress ball.”
- Students not involved in the study asked to use the stress balls.
- Students participating in the study wanted to take the stress balls and use them in their other classes.

### Table 4

Responses to Attention Survey (Mean, Standard Deviation, and Probabilities From Wilcoxon Signed Rank (WSR) Test for Paired Data)

<table>
<thead>
<tr>
<th>Symptoms of ADHD</th>
<th>Pretest M</th>
<th>SD</th>
<th>Posttest M</th>
<th>SD</th>
<th>WSR Test Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inattention</td>
<td>Students</td>
<td>0.33</td>
<td>0.29</td>
<td>0.23</td>
<td>0.23</td>
</tr>
<tr>
<td></td>
<td>Parents</td>
<td>0.18</td>
<td>0.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>Students</td>
<td>0.37</td>
<td>0.26</td>
<td>0.29</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>Parents</td>
<td>0.22</td>
<td>0.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impulsivity</td>
<td>Students</td>
<td>0.34</td>
<td>0.38</td>
<td>0.26</td>
<td>0.34</td>
</tr>
<tr>
<td></td>
<td>Parents</td>
<td>0.20</td>
<td>0.29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 5

Student Responses to Distraction Survey (Mean, Standard Deviation, and Probabilities From Wilcoxon Signed Rank (WSR) Test for Paired Data, n = 25)

<table>
<thead>
<tr>
<th>Survey Items</th>
<th>Pre</th>
<th>Post</th>
<th>t-test probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The classroom environment is free of stress.</td>
<td>3.1</td>
<td>3.4</td>
<td>0.19</td>
</tr>
<tr>
<td>2. Other students distract me.</td>
<td>2.6</td>
<td>3.4</td>
<td>0.04</td>
</tr>
<tr>
<td>3. Noise causes me to forget what I am doing.</td>
<td>3.0</td>
<td>3.4</td>
<td>0.19</td>
</tr>
</tbody>
</table>
Given the length of the intervention (7 weeks), these observations provide strong evidence that the students’ interest in using the stress balls was persistent and not just a novelty effect. Students believed that using the stress balls improved their ability to expend their energy in a socially appropriate activity and to channel their attention in an academically fruitful manner.

The writing section of the School Improvement Plan encouraged teachers to focus on improving students’ writing performance. The second research question dealt with the effect of stress ball use on writing scores. According to student journals, the students thought the stress ball helped increase achievement. Some responses are as follows:

- “I think it will help me make better grades.”
- “It helps me think of what to write.”
- “It helps me do makeup work.”
- “I feel like I can ace anything when I have my stress ball.”

Scores on the Paragraph Evaluation Rubric increased during the intervention. These results should be interpreted with caution because writing samples were scored by the teacher-researcher without independent scoring. Reliability for these scores has not been established. Nevertheless, it is worth noting that performance improvement was not limited to the skills taught during the intervention. This overall class grade average during the third 9 weeks (during the intervention) increased by 2% compared with grades for the second 9 weeks. Although this increase may appear to be trivial, historically grades had decreased during this grading period due to heavy emphasis on a research paper.

The third research question addressed the effect of stress ball use on attitude to task and peer interaction. From the student journals, 25 out of 29 students agreed that attitude improved. The students had an opportunity one day to take the stress balls to Science class. They wanted to see if the same positive results would apply to another classroom. The consensus was that the stress balls helped in another subject area. Some of the comments were:

- “I didn’t talk as much and the work seemed easy.”
- “I was having trouble with my work, and the answer just popped into my head after squeezing the stress ball.”
- “The ball helped me stay in my seat. Stress balls rule!” (This comment was made by student #4 who gave me the idea for this research.)

Ten out of 15 students who used the stress balls during group work agreed that stress balls helped peer interaction. Their comments included helping with attention, focus, cooperation, and completion of assignments. They also attributed a significant increase in attitude towards peer interaction to the stress ball intervention. It seems likely that decreasing distractions during instruction served a dual role—reducing resentment towards peers who interfere with the learning environment (Stevens, 1997) and increasing their willingness to work with and share learning experiences with their peers.

Students preferred round-shaped stress balls. Eight of the 29 students close stress balls with shapes other than round (apple, football, hard hat, duck). Seven students were dissatisfied with the choice of stress ball they had made and were given a chance to select a different ball. Four of these students exchanged irregular shapes for round shapes. The other three students chose a different round ball, where the color or design was different but the shape was the same.

It took two weeks for the students to decide whether the stress ball would benefit them during instruction. The stress balls definitely helped during direct instruction when students were expected to sit still and listen. The variety and frequency of distractions were greater than during independent practice. Not surprisingly, the kinesthetic students experienced more difficulty sitting still because of their need to move. Using the stress ball gave them a way to move that comforted them (Ward, n.d.), without resort to a behavior that distracted their peers. Student behavior in the classroom must foster learning and peer interaction in order for students to succeed in school (Salend & Rohena, 2003).

The results from independent practice showed interesting trends. If the students were working in groups and discussing information, the stress ball helped. If the students were working on a written task, the stress ball was not as effective because they could not write and squeeze the stress ball at the same time. Most students did not use the stress ball very often during independent practice because all assignments were writing tasks and the students were already stimulated with the writing utensils. The students who used the stress ball during peer interaction felt the stress ball helped them in learning focus and completion of assignments. The ability to select their own stress ball was also important to them (Thickbroom et al., 2003). It was interesting, however, that some students said, “just looking at the stress ball helps me think,” or “I know I can do the task if I have my stress ball with me.” The stress ball became a “mental crutch” for some students.

Deciding on the most effective procedures to implement the use of stress balls without interfering with focus on classroom instruction took time and energy. The classroom environment was very structured with high expectations for appropriate behavior in order to encourage a calm and cooperative working environment. Appropriate procedures and rules were incorporated and enforced during the intervention. Because the students had a tendency to get very excited and out of control, especially at the beginning of the intervention, there is a strong possibility the intervention would not have worked as well if the classroom management had been less structured.

The whole process was a learning experience for both teacher and students. It was enjoyable, ran smoothly, and produced results that were positive and exciting. The teacher was excited about the intervention and really wanted it to work. The students felt special that their class was chosen to participate in the study. Both of these factors could easily have exaggerated the positive effects of the intervention. However, based on the research, it was reasonable to expect the intervention to be effective.

The implications of this study are as follows:

- Inattention and distractions decreased during both direct instruction and independent practice.
- Writing scores increased during independent practice.
Students of all learning styles benefited, especially the kinesthetic learners. Socially, peer interaction was improved especially for students who were kinesthetic or ADHD. Part of a teacher’s job is to be aware of new interventions that work for students. Teachers are challenged to be aware of student learning characteristics and adapt teaching to meet student needs (Salend, 2001). The positive results achieved in this preliminary study justify future studies to determine whether the effects are generalizable to other teachers, to other grade levels, to other subject areas, and to students from a variety of social, cultural, and academic backgrounds.

References
Carbone, E. (2001). Arranging the classroom with an eye (and ear) to students with ADHD. Teaching Exceptional Children, 34, 72-81.

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Appendix

Paragraph Evaluation Rubric
(1 paragraph)

Student’s Name ___________________________________________ Teacher’s Name ___________________________________________
Grade/Course _____________________________________________ Date ___________________________________________________

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. You write a paragraph that is complete and clear. (5 sentences)</td>
<td>5 * 10 *15 * 20</td>
</tr>
<tr>
<td>2. You have a topic sentence that draws your reader in.</td>
<td>5 * 10 *15 * 20</td>
</tr>
<tr>
<td>3. You present sentences that make sense. Your words paint a picture.</td>
<td>5 * 10 *15 * 20</td>
</tr>
<tr>
<td>4. You have a satisfying concluding sentence that makes the paragraph sound complete.</td>
<td>5 * 10 *15 * 20</td>
</tr>
<tr>
<td>5. Mechanics/Usage</td>
<td>5 * 10 *15 * 20</td>
</tr>
</tbody>
</table>

TOTAL SCORE

Error Penalty Chart
(Twenty points are the maximum penalty.)

<table>
<thead>
<tr>
<th>Type Error</th>
<th>Tally Space</th>
<th>Number of errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct form (name, indent, title, ink, margins)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Correct form (name, indent, title, ink, margins)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Spelling (each word, not each occurrence)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Correct form (name, indent, title, ink, margins)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Fragment/Run-on</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Correct form (name, indent, title, ink, margins)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Punctuation</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Capitalization</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL PENALTY
Towards an Evidence-Based Approach to Dropout Recovery: A Model for Community Agencies

Richard Piiparinen

Abstract: This investigation provides a model for at-risk youth community agencies to tailor their programs to fit the specific needs of their local out-of-school youth. Using a needs-based assessment, baseline data were gathered on Cleveland African Americans (N = 187) to pinpoint academic strengths and deficits, career interests, and life-skill needs. The practical implications of population data in program development as well as the perceived benefits are discussed.

Introduction

The Workforce Investment Act (WIA) of 1998 was designed to provide a framework for a national workforce readiness and employment system meant to meet both the needs of businesses and job seekers. More recently, its reauthorization placed a greater emphasis on working with out-of-school youth (National Association of Workforce Boards, 2003). This major policy shift will challenge local WIA practitioners for years to come. While it is increasingly important to reach these vulnerable young people, very little support and guidance is offered on how to do so. Experiences gathered from the Youth Opportunity (YO) Programs, an initiative funded for 5 years to serve youth in nationally-designated high poverty Empowerment Zones (EZ), could help fill this gap.

Keeping the Motivational Window Open

Perhaps the one primary issue found confronting not only national YO Programs but also at-risk youth workforce agencies in general deals with the lack of long-term program participation. This lack may be due to the difficulty of engaging a substantial subset of the at-risk population who, for various reasons, are discouraged and disillusioned about their future. Nonetheless, there is reason for hope, especially at the time of enrollment when a youth’s determination to change is high (Public/Private Ventures, 2002). Specifically, studies on why dropout youth join programs consistently describe an “awakening” process prompting these youth to want to change their lives (Public/Private Ventures, 2002). This window, however, is not open forever, and capitalizing on it may depend on whether agencies can identify the incoming needs and characteristics of their local at-risk population in order to plan services accordingly. That way, as youth enroll and their motivation and hope rise, agencies have the programs to foster this initial optimism so that it can translate into long-term success.

The Targeting of Baseline Needs

Historically, the use of population data to guide intervention planning has been a tactic primarily confined to the scientific community. For example, the community mental health movement, which targeted persons with mental illness who were released into the community, undertook an extensive needs assessment of their populations, and, in doing so, adopted the slogan “nothing about me without me” (Nelson, Ochocka, Griffin, & Lord, 1998). This movement was in response to the inability of the previous system to provide services that matched the needs of the target population. As a result, an “empowerment paradigm” was articulated in which clients became involved with the design and evaluation of the community-based service system.

As a result of this success, a few educational researchers began a similar endeavor because of the similarities between those with a mental illness released into the community and other disenfranchised populations (for example those at risk) who have historically fallen through the cracks (Pruett, Davidson, McMahon, Ward, & Griffith, 2000). Specifically, a number of community youth agencies have begun to work within the empowerment paradigm to involve at-risk youth in program design (Pruett, Muyeed, & Schwab-Stone, 1999).

“Bottom Up” Approach to Workforce Development

Nonetheless, collecting specific population data (e.g., for local at-risk urban youth) is still not systematically undertaken at the community level.
to guide planning (United States General Accounting Office, 2004). Rather, local workforce program planning is most often determined by two broader, top-down approaches: (1) adhering to general WIA guidelines and (2) focusing on local labor market needs.

The WIA advocates that required services (i.e., educational development, job training and employability, employment, mentoring, and supportive services) be presented within a customer-focused framework where “One-Stop” centers “provide customers with information and access to job training, education, and employment services at a single neighborhood location” (U.S. Department of Labor, 1998, p. 4). While this One-Stop approach is conceptually customer-focused, it is one-sided since information is simply provided to the customer with little reciprocation between the him/her and the agency. As a result, agencies tend to piece together services that conform to broad, national WIA guidelines rather than using a more systematic approach to service selection based on the identified needs of the local consumer.

Second, using local labor market data is another tactic employed by policymakers to guide planning (i.e., there is a general idea of the jobs available for youth) (United States General Accounting Office, 2004). Yet, this method also does not take into account the interests and skills of the population being matched as youths are often simply “plugged in” to the jobs available locally. Needless to say, such an approach does not advocate that industry accommodate itself to the most vulnerable youth; however, youth community agencies, which ultimately act as intermediaries between the local workforce and under-prepared youth, should tailor their partnerships to the skills of those they serve rather than being guided solely by impersonal market trends.

The result of such top-down workforce development measures proves costly as many youths may feel that community-based agencies are “out of touch” with their wants and needs (Ivry & Doolittle, 2002). These first impressions are only exacerbated by the fact that many “seasoned” at-risk youth distrust community programs because they feel they are not shown the respect required for the initial contact to be successful (Ivry & Doolittle, 2002). Consequently, what is needed is a “bottom-up” method where planning is also dependent on the interests of the clients. If initiated, workforce developers can be cognizant of the demands of the local labor market as well as the strengths, needs, and interests of their at-risk youth. Only then will the curriculum best correspond to local disadvantaged youth, in turn leading to an increase in program completion and, ultimately, a more robust local workforce.

What Must We Find Out?

It is well-established that successful workforce development depends on several key factors: the individual education level, the propensity for an individual to find job satisfaction in work-related tasks, and the elimination of life stressors that could hinder job retention (United States Department of Labor, 2001). Each of these factors plays a role in the lives of at-risk youths.

The realities of the global economy make it increasingly necessary for publicly funded workforce systems to academically prepare the country’s most at-risk youth for real job opportunities. For example, young minorities with no GED or diploma did not fare well during the technological boom of the 1990’s (Ivry & Doolittle, 2002). The credential most frequently emphasized, the GED, gives young workers increased earning power, especially when accompanied by some postsecondary training (Ivry & Doolittle, 2002). However, the high attrition rate for at-risk youth in the classroom is often problematic (Dynarski & Gleason, 2000). This high rate is due, in part, to the overly broad approach taken by many youth-affiliated agencies in educating their youth since at-risk educators often adopt “across the board” adult basic education practices without focusing clearly enough on the characteristics of their younger students (Dynarski & Gleason, 2000). The result is less retention since incoming youths are disinterested if material is perceived as too elementary or, conversely, are intimidated if instruction is perceived as too difficult. While education is never easy, research has shown that it is more manageable if agencies have the resources to fit instruction to the needs of their respective students (Beder, 1991). What is needed, consequently, is a general awareness of the academic levels of average at-risk students on the first day of instruction, including, for example, their reading levels, their mastery of multiplication and division, and their ability to construct meaning from a passage.

Although educational attainment lays the groundwork for success, it is only one step in the transition to self-sufficiency. The next step for agencies must be occupationally focused, involving three components: accurately assessing career interests, identifying local training programs corresponding to these interests, and emphasizing those programs meeting the needs of both the population and the workforce. Past research has shown that worker satisfaction is the strongest predictor of longevity (Herr & Cramer, 1996), making it imperative for workforce agencies to assess their consumers’ career interests accurately. The purpose of career inventories is straightforward—to match interests with the most appropriate work settings. Holland’s RIIASEC model (1992) provides the theoretical framework for this match, stating that workers are attracted to jobs based on their personality type. There are six such personality types: Realistic, Investigative, Artistic, Social, Enterprise, and Conventional. An individual’s type is determined through a combination of skills, abilities, values, and environmental variables. As for the latter, there has been recent speculation (Brown 1995) that the career measurement theory may not hold for minorities given their unique environmental experiences which, subsequently, may lead to categorically different views of the work world; however, more recent research has determined that these speculations, to a certain degree, may be unfounded (Day & Rounds 1998; Day, Rounds, & Swaney, 1998).

While education and occupational training form the foundation of workforce development, less emphasized is the ability to handle stressors so that life difficulties do not lead to barriers. To be sure, stress outside the workplace is a problem affecting all populations, but when taken into account the environmental stressors more specific to the urban, at-risk population (e.g., high incidence of poverty, increased exposure to violence, more one-parent households), an ability to develop resiliency becomes especially important (Place, Reynolds, Cousins, & O’Neil, 2002). Thus, it is imperative to identify those life skills most needed by an area’s at-risk youth so that common barriers are mediated before they hinder participation and goal
The study reported here used a needs-based assessment to identify development services relevant to local at-risk youth. Baseline needs at intake were emphasized since later participation often depends on capturing youth at enrollment. Three program types are highlighted, academic, career, and supportive services. First, baseline academic data is provided so that effective GED curriculum strategies can be developed to match the needs of local out-of-school youth. Second, while remaining aware of local trends, the most predominate career interests of the youths are pinpointed to guide which occupational programs will best engage them. Third, because environmental and emotional stressors often burden a youth development, the most important life skill needs are identified so that specific supportive services are not only available, but are prioritized.

**Method**

**Sample and Procedure**

The population in the current investigation, in keeping with the Department of Labor’s emphasis on targeting the neediest youth, are low-income, out-of-school, African-American youths (aged 15-21) who presented at an inner-city, community-based workforce agency in the Empowerment Zone in Cleveland, Ohio. The sample consisted of 187 participants (74 male and 113 female) with a mean age of 18.5 years. The average grade at dropout was the tenth. Thirty-three percent (33%) of the youths had one or more children. As for living arrangements, 53% came from one-parent households and 5% from two-parent households, with 12% living with adults other than a parent and 21% living alone or with a peer. Participants were randomly selected from a pool of 1,000 out-of-school youth tested between June 2003 and October 2004.

**Data Collection**

All participants were referred to the assessment center from the intake and after being informed of the assessment process and meeting all admission requirements as outlined by the Department of Labor. Participants were tested in a controlled-testing environment under the supervision of a trained master-level clinician. Demographic information was collected via a standard pre-assessment interview conducted by intake staff.

**Instrumentation**

The assessments administered to youth were selected based on their relevance to WIA service breakdown. Educational data were compiled using a computerized version of the Test of Adult Basic Education (TABE) Forms 7 and 8 (2002). The three skills assessed were reading, math computation, and applied math. There were four test levels available to youth, with level selection determined by a Locator Test. Test results included grade equivalents (GE), percentile ranks, and objective mastery scores (OM). GE’s indicate achievement levels related to typical educational programs, ranging from 0.0 to 12.9. For instance, if a youth tests at a Reading GE of 7.4, his/her reading ability is at the level of 7th-grade students in their fourth month of the school year. Percentile ranks were calculated using relevant norm groups (i.e., adult basic education). Objective mastery scores measure academic strengths or weaknesses, with scores of above 75 indicating skill mastery (+), scores of 50 to 74 indicating partial mastery (P), and scores of below 50 indicating skill deficiency (-).

Career interest data were gathered using a computerized version of the Interest Determination, Exploration, and Assessment System (IDEAS) (Johansson, 1996). Test items consist of work activities, occupations, and school subjects related to 16 career areas organized by Holland vocational themes. Based on the results, each career area falls within one of three interest levels: high, average, or low with standard scores delineating a given level based on a norm peer group. Specifically, a standard score for 60 or higher on given career domain qualifies in the high interest level, a score of between 40 and 60 in the average interest level, and a score below 40 in the low interest level.

Supportive service needs were assessed using the Ansell-Casey Life Skill Assessment (ACLSA) (2002), a standardized tool available online that measures youths’ readiness to live on their own. The ACLSA contains items that assess a variety of skills within several domains including Daily Living Skills, Housing and Community Services, Money Management, Self-Care, and Social Development. Item answers are self-reported as “Very much like me,” “Somewhat like me,” or “Not like me.” Results are in the form of Percentage Mastery scores and percentiles. A Percentage Mastery score is the percentage of responses within a given domain to which a youth answered “Very much like me,” while the percentiles indicate how well a youth performed relative to other youth in their peer group who completed the test.

**Results**

As illustrated in Table 1, the mean Grade Equivalents (GE), the corresponding standard deviations, and the mean percentiles for each subtest of the sample studied here were as follows: Reading M = 6.2, SD = 2.3, 59th percentile; Math Computation M = 5.2, SD = 2.1, 45th percentile; Applied Math M = 5.9, SD = 2.1, 51st percentile; and Total Math M = 5.5, SD = 2.0, 49th percentile. There were no significant gender differences.

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Grade Equivalents TABE Scores With SD and Percentile (N = 187)</td>
</tr>
<tr>
<td>Subtest</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>Reading</td>
</tr>
<tr>
<td>Math Computation</td>
</tr>
<tr>
<td>Applied Math</td>
</tr>
<tr>
<td>Total Math</td>
</tr>
</tbody>
</table>
Regarding career interests, Figure 1 shows the group career interest scores by gender for each career domain. The top career domains, with the means in parentheses, for the male respondents were Sales (M = 59), Mechanical/Fixing (M = 58), and Business (M = 56); the top career domains for the female respondents were Medical (M = 62), Child Care (M = 62), Office Practices (M = 61), and Sales (M = 58). While three domains for the female respondents reached the high interest level, no domains for the males reached this level; however, their high-average scores for Sales, Mechanical/Fixing, and Business are still indicative of a strong career interest in those fields.

![Figure 1. Mean career interest scores by gender (N = 187).](image)

Finally, the group’s mean life skill Percentage Mastery scores in this study, broken down by gender are found in Table 2. The means of the male sample, with corresponding percentiles in parentheses, were as follows: Daily Living Skills M = 57% (50th percentile), Housing and Community Services M = 43% (26th percentile), Money Management M = 39% (22nd percentile), Self Care M = 64% (62nd percentile), and Social Development M = 47% (33rd percentile). The scores and percentiles for the female sample were Daily Living Skills M = 68% (54th percentile), Housing and Community Services M = 56% (33rd percentile), Money Management M = 45% (17th percentile), Self Care M = 86% (88th percentile), and Social Development M = 60% (40th percentile).

### Discussion
This baseline data gathered at intake can be used in the development of workforce service planning (i.e., educational, career, and support service) to address effectively the needs of out-of-school youth.

### Educational Services
While a complete description of the test construction and skill objectives used by the TABE and how it fits within the conceptual framework of the GED are beyond the scope of this investigation, the general curriculum strategies, based on the current academic profile illustrated in Table 3, give insight into the practical implications of the population data. For effective group instructional planning to be useful, educators must focus on the specific academic strengths and deficits outlined by the diagnostic profile provided by the TABE. When allocating instructional time for each skill, skills mastered (+) need little or no review; skills partially mastered (P), only a simple review; and skills not mastered (-), substantial time, meaning they are completely retaught.

For the current group, all instructional materials should be at the readability level of the 6th grade. Specifically, the reading diagnostic profile indicates that the group has mastered the ability to Interpret Graphics (e.g., analyzing graphs), needs some remediation involving Recalling Information (e.g., getting facts and concepts), Constructing Meaning (e.g., cause and effect), and Evaluating Meaning (e.g., critical thinking); and needs extensive remediation using Words in Context (e.g., synonyms and antonyms). As for math computation, the current profile indicates that the group has mastered the ability to add and subtract, needs some remediation with multiplication and division, and needs extensive remediation with fractions, decimals, and percents. The Applied Math profile of the group indicates that extensive remediation is needed in all skill areas except knowledge of pre-algebra. Particular focus should be given to studying forms of measurement and learning geometric properties since these two skill areas are the least developed.

The current group’s academic profile is important because, when used in conjunction with GED curriculum strategies, it can allow for the development of an effective road map for classroom success. While this approach is not novel in that many adult education agencies utilize pre-assessment results to map an individual’s GED prep plan, few agencies use a collective profile to map an evidence-based population prep plan. The benefits of the latter approach, especially for at-risk youth agencies with high enrollment and limited resources,
include (a) an ability to reach out to a maximum number of youth regarding their educational needs, (b) a less intimidating classroom environment where a youth’s academic self-esteem is not affected due to curriculum difficulty, (c) a less condescending classroom environment where a youth is not turned off due to the curriculum being too remedial, and (d) a more time-efficient manner of instruction for at-risk educators who often have difficulty balancing individual and group instruction due to the varying educational backgrounds of their students.

Career Services

The career interest results of the current group are consistent with past research examining minority teen career interests. Specifically, inner-city black youth have previously been found to have stronger interests in the medical, social services, and hands-on career fields than their white peers (Turner & Iapan, 2003), a trend reflected in the current sample’s higher scores in Medical, Child Care, and Mechanical/Fixing. However, there is less empirical precedent for the current group’s high interest in sales, entrepreneurial, and office careers, perhaps indicating an emerging career construct of interest for urban black youth.

After identifying interests, at-risk agencies should use them as a guide to occupational planning since an at-risk youth’s chances of becoming initially engaged are increased if he/she knows there are job training opportunities compatible with their skills, interests, and values. Since a youth’s interests do not operate in a vacuum, it is also important to understand local trends and high growth industries given that workforce development is optimal when unskilled workers are trained in areas where they are needed most. For northern Ohio, targeted high growth industries corresponding to the current sample’s interests include social services (Child Care), health services (Medical), construction (Mechanical/Fixing), business services (Business, Sales, Office Practices), retail (Sales), and auto repair (Mechanical/Fixing) (Ohio Department of Job and Family Services [ODJFS], 2004a).

Because of time and space limitations, only the three career areas most pertinent to the Cleveland area—construction, health care, and business/small business—will be discussed here. Emphasizing construction-related training programs for Cleveland at-risk youth is vital given its high interest among males, as well as the need for skilled laborers in the Cleveland labor market. In fact, the Cleveland Labor Market Information Report states that workforce development agencies serving youth need to focus on training and apprenticeships in construction so that Ohio’s labor requirements within this industry are met (ODJFS, 2004b). It would be pragmatic, then, for Cleveland-area youth agencies and construction-related programs and apprenticeships to have strong ties.

Given the female sample’s high endorsement of medical-related career interests, coupled with the high growth of health care services within the Cleveland area (ODJFS, 2004b), local workforce agencies should also have well-established connections to a variety of training programs within the medical field. Ideally, training options would include short-term (e.g., home health aides, nurse aides), moderate (e.g., medical assistants, LPN’s), and long-term (e.g., RN’s) options to accommodate all educational levels, circumstances, and abilities. Of particular importance to the Cleveland health sector are LPN’s,

| Table 3 |
| Mean TABE Objective Mastery Scores With Master Indicators (N = 187) |

<table>
<thead>
<tr>
<th>Mastery Level</th>
<th>Percent</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td></td>
</tr>
<tr>
<td>Interpreting Graphics</td>
<td>+</td>
</tr>
<tr>
<td>Words in Context</td>
<td>-</td>
</tr>
<tr>
<td>Recall Information</td>
<td>P</td>
</tr>
<tr>
<td>Constructing Meaning</td>
<td>P</td>
</tr>
<tr>
<td>Evaluating Meaning</td>
<td>P</td>
</tr>
<tr>
<td>Math Computation</td>
<td></td>
</tr>
<tr>
<td>Addition/Subtraction</td>
<td>+</td>
</tr>
<tr>
<td>Multiplication/Division</td>
<td>P</td>
</tr>
<tr>
<td>Decimals/Fractions</td>
<td>-</td>
</tr>
<tr>
<td>Percent</td>
<td>-</td>
</tr>
<tr>
<td>Applied Math</td>
<td></td>
</tr>
<tr>
<td>Numeration/Number Theory</td>
<td>P</td>
</tr>
<tr>
<td>Data Interpretation</td>
<td>P</td>
</tr>
<tr>
<td>Pre-Alg./Algebra</td>
<td>+</td>
</tr>
<tr>
<td>Measurement</td>
<td>P</td>
</tr>
<tr>
<td>Geometry</td>
<td>P</td>
</tr>
<tr>
<td>Computation/Estimation</td>
<td>P</td>
</tr>
</tbody>
</table>

Note: “+” is for Mastery. “P” is for Partial Mastery. (-) is for No Mastery.
RN’s, and nurse aides/orderlies, given an adequate supply of these credentialed staff ensures sustainability for two of the area’s more critical industries—hospitals and residential care facilities (ODJFS, 2004b).

While hands-on careers were primarily male-focused and medical careers were mainly female-focused, entrepreneurial and business careers were widely endorsed by both genders. This documented interest is important as business services and small business ownership are both high growth industries for the Cleveland market (ODJFS, 2004b), meaning the potential for job opportunities is likely. As a result, there must be business, clerical, retail, financial, and entrepreneurial programs available to Cleveland at-risk youth. Such training opportunities could range from subsidized training in a retail store, short-term programs that teach the basics of small business ownership, certification in clerical or customer service, and strong connections with local business degree programs. Regardless of an agency’s particular focus, fostering the population’s high business interests is essential.

An agency’s ability to demonstrate it has a number of job training programs and eventual job connections corresponding to a majority of its youths’ interests is vital for initial engagement and later participation. Until a more comprehensive approach to meeting both industry and worker needs is solidified, an area’s out-of-school youth will remain at risk, while local businesses will increasingly look externally for qualified employees, a lose-lose situation for any locality.

Supportive Services

Concerning the life skill results, while the females reported higher life skill functioning than the males, both at-risk groups scored below average when compared to their gender-specific peers nationwide. Specifically, both males and females scored in the lower half in Money Management, Housing and Community Resources, and Social Development.

Often neglected as a key component to at-risk youth development, an ability to become fiscally responsible is necessary for a number of reasons. For example, youths who engage in impulsive spending and are unable to budget will have difficulty financing housing, child care, and educational costs, reducing their chances of success. Moreover, while the practical applications of money management are numerous, past research has shown that emphasizing real-world skills to at-risk youth at the outset also increases chances of initial engagement (Ivry & Doolittle, 2002). For instance, even though the prospect of learning life management may not seem appealing, the opportunity for at-risk youth to open bank accounts, to finance cars, or to be able to lease apartments could attract enrollees. Therefore, the benefits of emphasizing fiscal responsibility for the current sample are twofold: (1) it focuses on a specific barrier to success; and (2) it has perceived immediate benefit, which can act as a recruitment and retention tool for the youth agency.

Another documented concern for the sample, a lack of information regarding housing, transportation, and other community resources, also affects chances of upward mobility. If youth lack safe places to stay, have difficulty getting to and from the youth center, class, or place of employment, and lack knowledge of the community resources to meet these and other needs, then the chances of success will be diminished. However, evidence suggests that this limited awareness may have less to do with the youth themselves and more to do with the neighborhoods in which they reside. For example, research has shown that neighborhoods like Cleveland’s Empowerment Zone that lack a strong economic base, a level of social interaction, residential stability, and a baseline level of public safety are less able to invest in resources for their youth (Kowaleski-Jones, 2000). In turn, at-risk youth living in these neighborhoods are less likely to stay in school, keep out of trouble, and achieve financial independence as adults (Kowaleski-Jones, 2000). To compensate, it is essential, then, for the at-risk agency to become knowledgeable of a variety of countywide resources so that the gaps in its youth’s individual and communal supportive services are mediated.

As for the groups’ lower Social Development scores, important precursors to motivation and achievement for at-risk youth involve their ability to socially relate and their interpersonal development (Becker & Luthar, 2002). For example, a youth who is unable to express feelings and lacks a broad support network will be more prone to “bottle up” negative feelings, a reaction often leading to increased stress and alienation (McWhirter, Besett-Alesch, Horibata, & Gat, 2002). Exacerbating this situation is the fact that urban youth confronted with additive risks associated with disadvantaged environments face increased vulnerability to emotional difficulties (Becker & Luthar, 2002). As a result, significant measures need to be taken by at-risk youth centers to combat the accumulating external and internal risks to the positive mental health development of these youth. These could include developing strong connections with local mentoring and mental health agencies, investing in social skills training courses at the center, and training staff in counseling and relationship-building techniques. The need for social skill development in dropout, urban youth can, not be overstated, and the results of such interventions have been found to play a significant role in achieving long-term productivity and employability (Knitzer, 1999). However, because such opportunities as interpersonal development, conflict resolution training, and social development may not have much appeal for many disadvantaged youth as they enroll, agencies should initially market the more practical supportive service rewards that can more readily attract youth such as transportation aid, financial aid, housing, and child care resources.

As this study suggests, the need to develop resiliency in the face of perceived insurmountable odds is a prerequisite to success. For the current group, this resiliency could take many forms: an ability to manage limited financial resources, an awareness of community resources to ease costs and supplement income, and a knowledge that one should reach out for help when experiencing emotional difficulties. The job for the at-risk agency is to help foster this resiliency by anticipating its youths’ most pressing issues before they occur and having the supportive services readily available as needs arise.

Summary

The federal reemphasis on out-of-school youth highlights the long-standing need for providing guidance to local practitioners when planning at-risk programs. One client-driven model involves measuring the population at intake via a needs-based assessment to allow for a more comprehensive approach to program development. While
this type of intervention development is common within the scientific community, it is rare, but sorely needed, within the dropout recovery arena. Specifically, out-of-school youth who historically experience a lack of motivation or disillusionment resulting from previous negative exposures often need immediate engagement so that any period of initial optimism can be cultivated, and not wasted. To do this, an agency must be able to say as youth enter its doors, “We know who you are; we know what you like and need, and we have the services to match these likes and needs.” Only then can successful engagement be the rule rather than the exception.

References


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Richard Piiparinen is an Assessment Coordinator for Youth Opportunities in Cleveland, OH. The position was funded through the Department of Labor via Vocational Guidance Services, an occupational rehabilitation nonprofit based in Cleveland. r_piiparinen@hotmail.com
No Child Left Behind has fostered an educational reform climate whereby excuses abound. At the same time, the body of educational research about what works has realized a critical and useful mass for courageous leaders. Exemplary models are available to describe concretely how student achievement can be improved.

Alan Blankstein has produced a mosaic of key reform principles, guiding questions, strategies and specific techniques for effective school enhancement. He presents a passionate and stimulating case for the power of a professional learning community, his vision entailing collective commitment to the overriding purpose of schooling.

The opening chapter sets the stage for the challenge and explains why failure cannot be tolerated. The difficulties inherent in change are exposed as more human and emotional than technical. Consequently, people respond to educational issues by avoidance, adopting fads, seeking new frames of reference, applying quick and easy solutions, ignoring the facts, shooting the messenger, or total burnout. The alternative is adherence to a cohesive leadership imperative.

School success is typically built upon a foundation which the author labels “The Courageous Leadership Imperative.” Some leaders possess an internal fortitude and a compelling need to act that is sufficiently strong to engage people throughout the organization. While such leaders make decisions based on data, they transcend the status quo through their will and heart.

After a change has been completed, there are almost always more people positive than negative about it. It is the process of change that is complex. Chapter Three, “Ten Common Routes to Failure, and How To Avoid Each,” addresses this matter generally within the context of Total Quality Management. Obstacles include the fact that many schools do not know what they want or need, or they wait for the ideal program or savior to arrive prior to initiating change.

“Building a Professional Learning Community with Relational Trust,” viewed as the key to school success, is based on the interaction between product, process and people. According to Blankstein, “Traditionally, schools have done fairly well on product and less well on people and relationships” (p. 60). High-performing schools are seen as emerging from the following six principles of professional learning communities:

**Principle 1** – Common mission, vision, values and goals

**Principle 2** – Ensuring achievement for ALL students; creating systems for prevention and intervention

**Principle 3** – Collaborative teaming focused on teaching and learning

**Principle 4** – Using data to guide decision-making and continuous improvement

**Principle 5** – Gaining active engagement from family and community

**Principle 6** – Building sustainable leadership capacity

Each of these principles is discussed in a chapter. Far and away, the best one is entitled “Ensuring Achievement for ALL Students.” Student misbehavior in school is often dealt with by punishment or banishment although the “Community Circle of Caring” is a more effective way. It creates a unifying system around self-control, contribution, connection and competence. The author believes there are four components a system needs for ensuring student success: an improvement plan for all students, systems for quickly identifying those in need, provisions for a continuum of support and targeted strategies for low-achievers, and published results on closing the achievement gap.
The chapter titled “Gaining Active Engagement” is solid, complemented by the practical information found in the various appendices. Appendix A begins with a self-assessment. Other material covers “Strategies for Making Time,” “Strategies for Dealing with Resistance,” a sample mission statement, a process for developing mission - vision - values - goals, a worksheet for developing a student improvement plan, the development of a system of prevention and intervention, a pyramid of intervention techniques, and the need for faith/hope/intervention and teacher/principal trust. This is very useful stuff!

Blankstein has deliberately written a short piece that motivated educators can tap to improve performance. This book is a good resource for school leaders who want to make a difference.

Reviewer

Dr. Arthur W. Stellar is Superintendent of Taunton Public Schools, Taunton, Massachusetts.
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