2004

The Effects of Music Therapy and Token Economy System vs. Music Therapy on Decreasing Inappropriate Behaviors with Students Labeled Emotionally Disturbed

Claudine Boussicaut
THE EFFECTS OF MUSIC THERAPY AND TOKEN ECONOMY SYSTEM
VS. MUSIC THERAPY ON DECREASING INAPPROPRIATE BEHAVIORS
WITH STUDENTS LABELED EMOTIONALLY DISTURBED

By
Claudine Boussicaut

A thesis submitted to the
School of Music
in partial fulfillment of the
requirements for the degree of
Master of Music

Degree Awarded:
Spring Semester, 2004
The members of the committee approved the thesis of Claudine Boussicaut defended on December 10, 2003.

___________________
Jayne Standley
Professor Directing Thesis

___________________
Clifford Madsen
Committee Member

___________________
Dianne Gregory
Committee Member

The office of Graduate Studies has verified and approved the above named committee members
First, I thank God for his unfailing grace and mercy. I am so grateful for Dr. Jayne Standley for all of her support, patience, and understanding through my matriculation through the Music Therapy program. A special thanks to all of the students and teachers who participated in the music therapy sessions. Thanks, Jennifer, for locating documents needed for the study. Thank you to Jhaismen for her expertise in creating graphs. Thank you to Latoya for your time and patience. Thank you Penny for the extra push and all the helpful hints in completing theses. I sincerely thank the Ray of Hope United Methodist Church family for the extra push to complete the thesis and graduate: Brenda, Rashid, Amber, Jarvis, Keane, and Brian. Most importantly, thank you to my family for everything.
# TABLE OF CONTENTS

List of Tables ......................................................... v  
List of Figures ........................................................ vi  
Abstract ........................................................................ vii 

The Effects of Music Therapy and Token System VS. Music Therapy On Decreasing Inappropriate Behaviors With Students Labeled Emotionally Disturbed  

Review of Literature ..................................................... 1  
  Introduction ............................................................. 1  
  Emotional Disabilities in Schools ................................. 1  
  Alternative Schools: Behavioral Plans ......................... 4  
  Token Economy Systems ............................................. 7  
  Token Economy Systems and Special Education ............. 8  
  Token Economy Systems in Music Therapy .................. 9  
  Music Therapy with Adolescents ................................. 10  
  Music Therapy and SED .............................................. 12  
  Music Therapy in the Schools ..................................... 12  

Method ................................................................. 13  
  Subjects & Setting ...................................................... 13  
  Materials .............................................................. 15  
  Procedure ............................................................ 15  

Results ................................................................. 17  

Discussion ............................................................ 20  

Appendix A ............................................................ 22  
Appendix B ............................................................ 26  
Appendix C ............................................................ 28  
References ............................................................ 31  
Biographical Sketch ................................................... 36
LIST OF TABLES

Table 1 Group A Demographics ................................ 14
Table 2 Group B Demographics ................................ 14
Table 3 Total Points for Group B ............................. 17
Table 4 Music Video Roles ................................. 17
LIST OF FIGURES

Figure 1 Total of Minor Maladaptives ....................... 19
Figure 2 Total Point Check ................................ 19
Figure 3 Total Prosocials ................................. 20
ABSTRACT

The purpose of this study was to examine the effect of token economy with music therapy vs. music therapy to decrease the behavioral problems with students labeled emotionally disturbed. Subjects included 20 students aged 13-17 years. A comparison of two groups was made: Class A received music therapy with a token economy system while Class B received only music therapy. In Class A, tokens were given to reinforce the students for demonstrating appropriate behaviors during sessions. During Class A’s last session, the students used the points acquired to select roles in an original music video. The design for each group was ABABAC with baseline and treatment sessions alternating until the final session. Sessions were videotaped and observed by the researcher then compared to data recorded by the class teacher and/or aide. The school’s ongoing behavior data sheet was used. Graphed results showed little difference between groups except on prosocial behaviors. The token economy group improved more than the music therapy only group in this area. There was no significant difference between groups on Mann-Whitney U comparison in reduction of inappropriate behavior.
Review of Literature

Introduction

Behavior management techniques, such as positive reinforcement, token economy systems, contracting and time-out are commonly used in SED programs. SED is a condition resulting in persistent and consistent maladaptive behaviors, which exist to a marked degree, which interferes with the students' learning process (Coleman, 1996). In addition many supportive therapies involve music and the visual arts to give the student a better sense of self, and self-control. This study attempted to combine both to ascertain whether effects are cumulative.

Emotional Disabilities in Schools

Children are considered to have an emotional or behavioral disorder when their behavior falls outside the norm such as: being inattentive, withdrawn, aggressive, nonconforming, disorganized, immature, or unable to get along with others (Bos, Schuam, & Vaughn, 2000). Many of these behaviors could be caused by numerous reasons ranging from family and social stressors to chemical imbalances. Some scholars say that behavior disorders are biologically or genetically caused (Matsun, 1983). Some youths with this disorder may not achieve social and cognitive milestones appropriate to their chronological age and require specialized intervention and educational settings due to aggressive impulsivity, short
attention span, difficulty concentrating, poor on-task behavior and an inability to manage powerful negative affects related to trauma (Paul, 1984). Traumas which contribute to emotional distress include various types of abuse.

Dolan (1991) states “sexual abuse rarely occurs without any damage, even the most minor of sexual acts can result in severe emotional harm.” According to Bass and Davis (1988) abuse survivors learn to cope by not allowing themselves to experience these feelings to their full extent.

Public Law 94-142 defines SED as a condition exhibiting one or more of the following characteristics: an inability to learn which may be caused by intellectual, sensory, or health factors and an inability to build or maintain satisfactory interpersonal relationships with peers and teachers (Zabel, 1998). Many terms are used to refer to what we will call behavior disorders: mental illness, emotional handicap, social maladjustments, serious emotional disorder, and disturbance. Some professionals use these terms precisely to distinguish subtle differences in the nature or severity of the problems.

Public Law 94-142, created the field of special education and laws relating to the guarantee of a free and appropriate public school education for any student with a special need (Mazurek & Winzer, 2000). Emotional and behavioral disorders are grouped into two broad categories: externalizing and internalizing. Externalizing behaviors are characterized by acting out, aggression, interfering, attention seeking, and
conduct problems. Externalizing behaviors seem to be more intolerable to teachers than other undesirable behaviors because they directly challenge the teachers’ authority, interfere with the delivery of instruction, disrupt classroom routines and affect classmates adversely (McConaughy & Skiba, 1993; Safran & Safran, 1987).

Internalizing behaviors are viewed as more self-directed, such as being anxious, worried, and depressed (Bos, Schumn, Vaughn, 1997). In general, internalizing or over controlled behaviors are more inner-directed and covert in nature (Bocian, Gresham, Lambros, MacMillan, & Ward, 1998). When teachers and or parents detect any of these behaviors, the student should then be evaluated for special education placement. Further the educational intervention should match the established needs of the students with behavioral disorders (Zabel, 1998).

In order to meet the individual behavioral and academic needs of the SED students, unique programs are designed by multidisciplinary educational teams which include parents (Morgan & Reinhart, 1990). This design then allows most SED students to benefit from temporary placements in special classrooms, institutional programs, or even alternative schools. If for some reason, the sought after educational results are not being achieved in that regular setting, the students will only be placed into an alternative school (Boss, Schumn, Vaughn, 2000). Brucer reports that Rosa Kennedy and Jerome Morton (1989) suggest that alternative schools need to reflect a
valuing of each student as an important person whose underlying motivation is positive.

Depending on the criteria used, prevalence rates for mild emotional disorders varies. Higher prevalence rates are reported for mild emotional or behavioral disorders, and lower prevalence rates for more severe disorders. In an article published in the Educational Resource Information Center, Robert Zabel concludes “although teachers typically consider 10%-20% of their students as having emotional or behavioral problems, a conservative estimate of the number whose problems are both severe and chronic are 2%-3% of the school aged population (1998).

Currently, less than one-half that number are formally identified and receive special education. Estimates for emotional and behavioral disorders range from 0.5 percent to 20 percent or more of the school’s population (Kauffman, 1993).

Whether emotional or behavioral disorders have social or organic causes, they are treated with therapies, psychological help, and medications such as stimulants, antidepressants, and antipsychotic drugs.

**Alternative Schools: Behavioral Plans**

Alternative schools usually provide a “therapeutic milieu,” a structured environment where students experience a high degree of success; rules and routines are predictable; and students are consistently rewarded for appropriate behavior (Zabel, 1998). Students are usually placed in an alternative school when the student’s disabilities are severe and require special attention (Sarson, 1983).
Teachers, therapists, and counselors, should always keep the following in mind when developing behavioral plans: “I. students should be engaged in useful activities which are of interest to them and their ability level. II. The facilitator should respect the student. III. When problems arise, the therapist should seek support from colleagues or senior staff. IV. Therapist should adhere to the rules of the school. V. Therapist should remain calm. VI. Therapist should be consistent.” (Farrell, 1995).

Guidelines for establishing behavioral plans include: (i) Involve everyone in planning the intervention i.e the student, parent/guardians, teacher who know the student best, counselors, and even outside agencies. The aim is that everyone agrees on the nature of the problem, the causes and what to do about them. (ii) Observe behaviors carefully. It is important to observe the following factors: (Goodman, 1999; Hewett, 1968)

**The setting:** where things are happening

**The antecedents:** what happens immediately before the behavior takes place?

**The behavior itself:** what happens?

**The consequence:** how does the teacher and or students react immediately following a behavior?

(iii) Be explicit about the behavior change and realistic about when this could be achieved.

(iv) Make intervention strategies explicit (Morris, 1985).

A major goal in developing behavioral plans is to generate strategies for reducing problem behaviors and increasing appropriate, replacement behaviors (Crone &
An example of a Behavioral Plan component, is the Competing Behavior Pathway. The purpose of the Competing Behavior Pathway is: 1. to highlight the importance of building the behavior plan around the hypothesis statement, 2. to identify competing behavioral alternatives to the problem behavior 3. To determine strategies for making the problem behavior ineffective, inefficient, or irrelevant through changes to the routine or environment. Other behavior interventions used in school settings are Positive Reinforcement treatments, self-reinforcement, extinction, self-instructional training, and multiple-component treatments.

Positive reinforcement treatment was developed to eliminate or decrease behaviors such as aggression without resorting to aversive or punishment procedures. Although extinction procedures can be successful they are usually not recommended for the treatment of harmful or violent behaviors because they work slowly and aggressive behaviors cause injuries that should not be ignored (Maheady, Rosenberg, Wilson, & Sindelar, 1997)

Self-Reinforcement is a way for students to self-monitor and rate their own behavior. The student will award him/herself. Self-Instructional Training stresses the importance of overt behavior by private speech and verbal meditation (talking aloud to solve problems). Multiple-Component Treatments use many treatments simultaneously such as muscle relaxation, role playing, behavioral contracting etc.
**Token Economy Systems**

A behavior modification approach largely ignores the relationship between a behavior and the variables maintaining it and, instead, attempts to alter behavior by superimposing new contingencies of reinforcements and or punishment (Bijou & Baer, 1978; Repp, 1983). “Much of the behavior modification work that is conducted with exceptional students involves the use of reinforcements to strengthen various target behaviors” (Morris, 1985). A token economy is frequently used in behavior modification. It involves awarding tokens, chips, stickers, check marks, points or other items/markings to students/adult who demonstrate desired behaviors identified by the teacher or the person in charge. Today, token economies are an accepted, widespread, and effective all-purpose treatment in which the control of aggressive behavior has been demonstrated in group homes, self-contained classrooms, community youth centers, day schools, psychiatric hospitals and residential placements (Maheady, Rosenberg, Wilson, & Sindelar, 1997). According to Madsen & Madsen (1998), token economy requires two components: tokens and back-up reinforcers. A third component is specified contingencies. Other behavioral techniques such as response-cost or time-out can be integrated into the token system (Maheady, Rosenberg, Wilson, & Sindelar, 1997). A token is used to “buy” food items, special privileges, special activities, etc. Students may also receive tokens for promptness, appropriate interpersonal relationships, for positive attitude to
work, for helpfulness, and other attributes at every lesson and for break and lunch times, etc. (Cole, Visser & Upton, 1999) Mercer and Mercer (1985) suggest these systems have three basic characteristics: “a) behaviors to be reinforced are clearly stated, b) procedures are designed for administering reinforcing stimuli (tokens) when the target behaviors occur, and c) rules are devised to govern the exchange of tokens for reinforcing objects or events. One procedure that is growing in use is the level system, a variation of the token economy where students move through a series of point-based systems as their behavior improves.”

Thomas McIntyre (1989) stated that benefits from this system are ease of administration, the use of immediate reinforcement while teaching delayed gratification, lack of boredom or satiation for the student due to the availability of the variety of back-up reinforcers, and lack of competition between students as the student competes against himself.

**Token Economy Systems and Special Education**

Axelrod (1970), conducted in a study comparing contingencies between individuals and groups in special education. The class that received individual contingencies with the token economy system, produced a more “orderly” classroom.

Henry (1973), used a token economy system to investigate whether mentally handicapped students could behave appropriately and have better motor performance during Physical Education. This study concluded that contingencies placed on attending behavior alone increases attending behavior but has
little effect on academic performance. With academic performance as the target behavior, contingencies increased assignment completions and the quality of work accomplished but did not improve appropriate behavior in the classroom.

In a study by Maria Ozols (1990), a token economy increased and maintained the response of cooperative behavior in trainable mentally retarded teenagers. The data from this research were obtained from baseline, post-treatment, and follow-up observations. The research was taken during Physical education. Each time the whistle was blown the subjects had 5 seconds to report to the basketball circle which in turn would award the subjects a chip. A subject could receive 3 chips per session.

**Token Economy Systems in Music Therapy**

“Music Therapy is a method of behavioral manipulation and therefore can automatically be considered as falling within the purview of the behavior modification movement (Madsen, Cotter, Madsen, 1968).”

A token economy system was used in a study by Jean C. Clegg (1982), in which the subjects would place a chip in a tube upon completing a unit of work in a mattress assembly line. The purpose of the study was to determine the rate of production during non-music, non-contingent, and contingent music on the subjects rate of self-monitoring. This study proved that there was no significant difference between non-contingent behavior and a significant difference
between non-contingent and contingent music conditions.

Carl Eidson (1988), conducted a study to examine the effect of a specific music therapy treatment program on student interpersonal behavior demonstrated in group sessions in unaltered classrooms. Eidson used a token economy to reinforce students for demonstrating targeted behaviors. Three groups were compared. This study showed that experimental subjects demonstrated consistently high levels of appropriate classroom behavior.

In a study completed by Geralyn Presti (1984), a contingency management system was used to provide a hierarchical format to change targeted behaviors. The levels system allows different forms of reinforcers which included token economy system and or, behavioral contracts. In the 2 years of the implementation of this program, the teachers were provided with the opportunity to correct unwanted behaviors.

**Music Therapy with Adolescents**

According to Kennedy & Morton (1999), inappropriate behaviors are not uncommon when referring to adolescents. Adolescence is a period of development characterized by tremendous change in both mind and body. During this period of development, adolescents are establishing their own independence and identity and sometimes test social limits (Robb, 1996).

Research has found that any treatment goal can successfully be worked on with adolescents using music
therapy. Many of the creative arts therapies have been effective in facilitating self-expression, and development of interpersonal skills amongst children and adolescents (Whitaker, 1985; Morsink, 1964). Brooks (1989) says that its non-threatening manner makes it an excellent “sneak” therapy. She continues by saying music is a catalyst causing adolescents, to look at themselves musically and visually. Popular activities used to increase expression of feelings and to build self esteem are: music and relaxation, guided imagery, role playing, rhythm instruments, song writing, musical improvisation, music listening, and group musical collaboration (Clendon-Wallen, 1991; Friedlander, 1994; Ventre, 1994). Although some students may be labeled with a disability or “disorder” Miller and Orsmond (1995), found that youth with disabilities could create sophisticated improvisational songs. Robb (1996) says that music therapy interventions with adolescents will teach active coping skills, decrease feelings of learned helplessness, and promote self-expression. Wells and Stevens (1984) found music to be helpful in stimulating nonverbal self-expression for young adolescents in group situations. “Group Music Therapy can also facilitate the process of self expression and provide a channel for transforming frustration, anger, and aggression in the experience of creativity and self mastery” (Coones & Montello, 1998). Music Therapy has been used also as an effective tool for increasing the self esteem and self pride of adolescents with behavioral problems (Johnson, 1981; Sears, 1968). Maranville (1983), found that music therapy subjects
interacted at a higher rate than subjects in verbal therapy groups. Clinical musical improvisation also provides a non-threatening, and non-verbal means of disclosure and examination with abused students.

**Music Therapy and SED**

Music therapists working on multidisciplinary treatment teams in schools and other intensive treatment environments are in a vital position to contribute distinctive therapy interventions with valuable and specific application to students with SED (Heng, Hong, & Hussey, 1998). There are five benefits in utilizing music therapy in the treatment of emotionally disturbed youth: affective functioning, communication, social dysfunction, cognitive dysfunction, and musical responses (Hussey, Laing, & Layman, 2002).

When using music therapy with the SED population, behavioral music therapy is used. Behavioral music therapy uses music to increase or modify adaptive behaviors and to extinguish maladaptive behaviors (Bruscia, 1989). SED behavioral techniques were developed by Presti (1984) who applied this approach to music therapy with students in the public schools.

**Music Therapy in the Schools**

Music therapy in schools can happen one of two ways: by decision of the IEP committee or decision of the school district.

IEP (Individualized Education Plan) is a plan developed to meet the special learning needs of each
student with disabilities. The IEP committee may request an assessment for a particular student. The should the results indicate a need for music therapy as the form of treatment, the parents may enter a legally binding contract for the service to be provided.

If the decision is made by the school district, groups of students are usually identified. These students are those who, due to disability and/or age, have difficulty benefiting from traditional types of school instruction (Repp, 1983).

Method

Subjects and Settings

Students labeled SED were placed in an alternative school within the Leon County School District. It is from this population that 20 students from both middle and high school classes were chosen as subjects. Each of the treatment groups consisted of 10 students in a pre-arranged sample. The majority of the subjects were male and African American. The mean age for the Group A was 14.5 years and for Group B was 16.5 years. This age discrepancy may have influenced the results. The mean IQ differed between the groups but was within the same standard deviation for borderline Mentally Handicapped. (See tables 1 and 2 for class demographics)
Table 1 Group A Demographics

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>Age</th>
<th>Gender</th>
<th>Race</th>
<th>IQ (Full scale)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student C</td>
<td>15</td>
<td>Female</td>
<td>Caucasian</td>
<td>70</td>
</tr>
<tr>
<td>Student D</td>
<td>14</td>
<td>Male</td>
<td>African American</td>
<td>105</td>
</tr>
<tr>
<td>Student H</td>
<td>13</td>
<td>Male</td>
<td>African American</td>
<td>90</td>
</tr>
<tr>
<td>Student K</td>
<td>14</td>
<td>Female</td>
<td>Caucasian</td>
<td>73</td>
</tr>
<tr>
<td>Student M</td>
<td>15</td>
<td>Female</td>
<td>Caucasian</td>
<td>85</td>
</tr>
<tr>
<td>Student MM</td>
<td>13</td>
<td>Female</td>
<td>African American</td>
<td>102</td>
</tr>
<tr>
<td>Student R</td>
<td>12</td>
<td>Male</td>
<td>African American</td>
<td>87</td>
</tr>
<tr>
<td>Student RR</td>
<td>12</td>
<td>Male</td>
<td>African American</td>
<td>75</td>
</tr>
<tr>
<td>Student S</td>
<td>14</td>
<td>Male</td>
<td>African American</td>
<td>71</td>
</tr>
<tr>
<td>Student SS</td>
<td>13</td>
<td>Male</td>
<td>Caucasian</td>
<td>78</td>
</tr>
<tr>
<td>Mean Age</td>
<td></td>
<td></td>
<td>Mean IQ</td>
<td>83.6</td>
</tr>
</tbody>
</table>

Table 2 Group B Demographics

<table>
<thead>
<tr>
<th>Students</th>
<th>Age</th>
<th>Gender</th>
<th>Race</th>
<th>IQ (Full scale)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student A</td>
<td>17</td>
<td>Male</td>
<td>African American</td>
<td>68</td>
</tr>
<tr>
<td>Student AA</td>
<td>17</td>
<td>Male</td>
<td>Caucasian</td>
<td>73</td>
</tr>
<tr>
<td>Student C</td>
<td>16</td>
<td>Male</td>
<td>African American</td>
<td>57</td>
</tr>
<tr>
<td>Student F</td>
<td>16</td>
<td>Male</td>
<td>African American</td>
<td>68</td>
</tr>
<tr>
<td>Student J</td>
<td>17</td>
<td>Male</td>
<td>African American</td>
<td>67</td>
</tr>
<tr>
<td>Student JE</td>
<td>16</td>
<td>Male</td>
<td>Caucasian</td>
<td>90</td>
</tr>
<tr>
<td>Student JJ</td>
<td>16</td>
<td>Male</td>
<td>Caucasian</td>
<td>68</td>
</tr>
<tr>
<td>Student L</td>
<td>16</td>
<td>Female</td>
<td>African American</td>
<td>72</td>
</tr>
<tr>
<td>Student S</td>
<td>17</td>
<td>Female</td>
<td>African American</td>
<td>70</td>
</tr>
</tbody>
</table>
Table 2 Continued

<table>
<thead>
<tr>
<th>Student T</th>
<th>17</th>
<th>Male</th>
<th>African American</th>
<th>75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age</td>
<td>16.5</td>
<td>Mean IQ</td>
<td>70.8</td>
<td></td>
</tr>
</tbody>
</table>

**Materials**

Materials included a guitar, portable CD and cassette player, percussion instruments, Boomwhackers CD’s, cassettes, charts, chart stand, markers, streamers, scarves, video recorder (Sony TRV130), video tapes, and CD/Tape player (Phillips Magnavox AZ1020).

**Procedure**

This study utilized a Reversal Design (ABABAC) for each of the two groups across six sessions. A= baseline condition no treatment, B= music intervention, and C= final session. Group A received music therapy with a token economy system and Group B only received music therapy. At the conclusion of treatment, the class that received the token economy system created a music video during the 6th session. The number of points received by each student determined the order in which they chose the preferred role in the video (refer to tables 3 & 4) Group B only received their preferred music activity in the 6th session. At the beginning of each session the researcher displayed the rules. The students and researcher verbalized goals to be achieved throughout the sessions. The data for each session were collected on the school’s point sheet. The point sheet is divided into 4 sections: Prosocial behavior (+5 or +10
points), Major Maladaptive behavior (-200 points) and Minor Maladaptive behavior (-20 or -50 points) and Point Check, which is points obtained based on the overall behavior. (Refer to Appendix B for copy of check list). Data for this study were collected in 3 categories only: Point Check, Prosocial, and Minor Maladaptives. Point check is the points earned when the student is following the rules, doing the assigned work, or for not losing any points. Prosocial points are earned when the students is behaving positively. Minor Maladaptive are inappropriate behaviors that can be dealt with by the supervising school staff member. The teacher or aide with that particular class would log the students’ behaviors every 15 minutes during the 45-minute session. At the record interval before any data were logged, the teacher/aide would raise her hand to note the point in the tape being evaluated. Once the sessions were ended, the researcher then observed the tapes and recorded at the 15-minute marker by the teacher or aide. Reliability between the two independent observations was computed to be: Minor Maladaptives .89% (Group A) .97% (Group B); Point Check .98% (Group A), 1.00% (Group B); Prosocials .96% (Group A), .97% (Group B).
Table 3  Total number of points for students in Group B

<table>
<thead>
<tr>
<th>Student</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student C</td>
<td>105</td>
</tr>
<tr>
<td>Student D</td>
<td>55</td>
</tr>
<tr>
<td>Student H</td>
<td>-30</td>
</tr>
<tr>
<td>Student K</td>
<td>50</td>
</tr>
<tr>
<td>Student M</td>
<td>75</td>
</tr>
<tr>
<td>Student MM</td>
<td>45</td>
</tr>
<tr>
<td>Student R</td>
<td>-95</td>
</tr>
<tr>
<td>Student RR</td>
<td>-190</td>
</tr>
<tr>
<td>Student S</td>
<td>5</td>
</tr>
<tr>
<td>Student SS</td>
<td>-130</td>
</tr>
</tbody>
</table>

Table 4  Students in Group B chose preferred roles from this list

**Music Video Roles**

Director
Camera Control
Stage Crew Manager
Choreographer
Vocal Artist
Dance Artist

**Results**

The inappropriate behaviors recorded in the minor maladaptables category were the focus of this study because all of the students within the study demonstrated behavioral issues which caused their enrollment into SED program. The researcher wanted to determine whether the inappropriate behaviors would decrease according to conditions of the study. Data were compiled for each group and means graphed across condition (Figure 1). This graph demonstrates that
music therapy with a token economy system (Group A) decreased inappropriate behavior during treatment conditions. This class seemed to lack motivation to behave in the less structured music therapy sessions when tokens were not awarded.

Number of minor maladaptive behaviors for each treatment session was totaled and a Mann Whitney U test was completed to compare groups. Since the critical value of $u$ for $\alpha<0.05 = 23$ and the obtained $u=44$ the difference between groups was not statistically significant (Madsen & Moore, 1978).

The other two categories quantifying positive responses were combined. Data were compiled for each group and means graphed across condition (Figure 2&3). Figure 2 shows the point check totals across sessions for each group. The higher the number displayed, the greater the on-task behavior during the overall point check time. Figure 2 shows decreases for both groups in the first treatment session then steady increases across all sessions. The type of intervention did not influence this behavior.

Figure 3 shows mean prosocial behaviors across sessions with Group B remaining constant and Group A showing improvement overall but not with regard to specific conditions.
Figure 1 Total of Minor Maladaptives

Figure 2 Total Point Check
Figure 3 Total Prosocials

Discussion

Group A

In comparison to the baseline session (See Figures 1-3) the overall number of inappropriate class behaviors generally decreased during treatment. The decrease in minor maladaptive points, is thought to be related to the students becoming better adjusted to weekly 45 minute sessions and the token contingency. All of the students responded to music and the overall class enjoyed the sessions as evidenced by smiles, laughter, and the enthusiasm during the different activities. Student RR (Table 3) however, was somewhat troublesome during the first two sessions. This student started a fight with another student, which caused him to be removed from the classroom to be sent to indoor suspension until the conclusion of the school day. The classroom teacher and aides were very
instrumental in assisting the researcher with keeping
the students focused and engaged.

With this particular class, self esteem or lack
of confidence was displayed by several of the
students. Student M was always very hesitant about
sharing because of the fear that her responses were
not very popular with the other students. Most of the
students enjoyed rap and R&B but she was the only
student who enjoyed rock and country music. By the
end of the sessions, Student M shared more and even
sang freely for her classmate. Although she claimed
that it was a difficult task to do, she was successful
and received many compliments from her classmates as
well as the teacher and aides.

Group B

This class exhibited a “warmer” feel. A possible
contributing factor could be the difference of age.
The mean age of this class was 17 years. As shown in
the graphs, in most instances the inappropriate
maladaptive behaviors decreased during music therapy
treatment. Student F was the student that required
much attention from the teacher or aide. Student F
would often say or do things that would require him to
be removed from the class or sent to indoor
suspension. Although this class over all enjoyed
music, the sessions would usually get off to a slow
start. By the third session the students were
awaiting the class periods where music therapy would
take place.
Teacher Consent

I understand that my student_________________ will be a participant in the research project entitled, “The Effects of Music Therapy and Token Economy System vs. Music Therapy on Decreasing Inappropriate Behaviors with Students Who Display Inappropriate Behaviors”

The research is being conducted by Claudine Boussicaut, who is a Graduate Music Therapy Student at Florida State University. I understand the purpose of this research is to determine the effects of token economy paired with music therapy to decrease inappropriate behaviors. Token Economy is a rewards system by which the students will be awarded when displaying appropriate behaviors. The reward will be issued in points. I understand this research will allow my child to participate in six Music Therapy sessions and possibly one session to create a music video.

I understand the research will be taken during school hours in the elective rotation. I understand that this research will involve two classes; one class receiving just Music Therapy and the other class will receive Music Therapy paired with a token economy system. I understand that the class with the token economy system will redeem the points earned for preferred roles in the video.

I understand that each session will be video taped in an on-site classroom and can only be viewed by the researcher, school administrator, and or the classroom teacher. The videotapes will be in the care of the researcher and will be kept in a secured chest. All tapes will be destroyed exactly one year to date of the completion of the research (April 2003).

I understand this consent could be withdrawn at anytime without prejudice, penalty or loss of benefits to which my child is otherwise entitled.

I understand that I may contact Claudine Boussicaut at 580-5361, Dr. Jayne Standley, Professor of Music Therapy at Florida State University at 644-4565, or the Institutional Review Board at 644-8633 for answers to any questions about this research or my Childs rights.

I am also willing to release the Student Data Collection Sheets at the conclusion of each session for the use of reliability for the research. I have read and understand this consent form.

_______________________                      ______________
(Parent)          (Date)
Parent Consent

I understand that my child_________________ will be a participant in the research project entitled, “The Effects of Music Therapy and Token Economy System vs. Music Therapy on Decreasing Inappropriate Behaviors with Students Who Display Inappropriate Behaviors”

The research is being conducted by Claudine Boussicaut, who is a Graduate Music Therapy Student at Florida State University. I understand the purpose of this research is to determine the effects of token economy paired with music therapy to decrease inappropriate behaviors. Token Economy is a rewards system by which the students will be awarded when displaying appropriate behaviors. The reward will be issued in points. I understand this research will allow my child to participate in six Music Therapy sessions and possibly one session to create a music video.

I understand the research will be taken during school hours in the elective rotation. I understand that this research will involve two classes; one class receiving just Music Therapy and the other class will receive Music Therapy paired with a token economy system. I understand that the class with the token economy system will redeem the points earned for preferred roles in the video.

I understand that each session will be video taped in an on-site classroom and can only be viewed by the researcher, school administrator, and or the classroom teacher. The videotapes will be in the care of the researcher and will be kept in a secured chest. All tapes will be destroyed exactly one year to date of the completion of the research (April 2003).

I understand this consent could be withdrawn at anytime without prejudice, penalty or loss of benefits to which my child is otherwise entitled.

I understand that I may contact Claudine Boussicaut at 580-5361, Dr. Jayne Standley, Professor of Music Therapy at Florida State University at 644-4565, or the Institutional Review Board at 644-8633 for answers to any questions about this research or my Childs rights.

I have read and understand this consent form.

_______________________                      ______________
(Parent)          (Date)
Student Assent

I __________________ understand that I will be a participant in the research project, which deals with removing unwanted behaviors using music in my class.

The research is being done by, Claudine Boussicaut, who is a Graduate Music Therapy Student at Florida State University. I understand the purpose of this research is to determine the effects of a point system along with music therapy to decrease inappropriate behaviors. I understand this research will allow to participate in six music therapy classes and possibly one session to create a music video.

I understand that the research will involve two classes; one class getting just music therapy and the other class will get music therapy along with a point system. I understand that the class with the point system will use the points earned for roles in the music video.

I understand that each class will be video taped and the classes will be in a classroom on the campus of my school. I understand that the researcher (Miss Boussicaut), school administration, and or the classroom teacher can only view all videotapes. I understand that all videos will be kept in the care of the researcher and will be destroyed one year after the research is done (April 2004).

I understand that I may be asking to leave the research at anytime when I act inappropriately. I also understand that I may at anytime refuse to continue to participate at anytime during the research.

I understand that I may contact Claudine Boussicaut the researcher at 580-5361, Dr. Jayne Standley a 644-4565, or the Institutional Review Board Human Subjects at 644-8633 if I may have any questions.

I have read and understand this consent form.

___________________                          _______________
(Student)              (Date)
APPENDIX B

Daily Class Point Sheet
<table>
<thead>
<tr>
<th>Time</th>
<th>Team</th>
<th>Time</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:45-9:00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity</th>
<th>F</th>
<th>D</th>
<th>N</th>
<th>F</th>
<th>D</th>
<th>N</th>
<th>F</th>
<th>D</th>
<th>N</th>
<th>F</th>
<th>D</th>
<th>N</th>
<th>F</th>
<th>D</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow Rules</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does Assignments</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Points Lost</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Prospects</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Prospects</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ignore Provocation</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>-200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>-60</td>
<td>-20</td>
<td>-20</td>
<td>-50</td>
<td>-50</td>
<td>-50</td>
<td>-20</td>
<td>-20</td>
<td>-50</td>
<td>-50</td>
</tr>
</tbody>
</table>
APPENDIX C

Florida State University Thesis Approval
Leon County Public Schools Thesis Approval
APPROVAL MEMORANDUM
from the Human Subjects Committee

Date: January 30, 2003
From: David Quadagno, Chair
To: Claudine Boussicaut
     Tallahassee, FL 32304
Dept: School of Music, Music Therapy Department
Re: Use of Human subjects in Research
     Project entitled: The Effects of Music Therapy and Token Economy System vs. Music Therapy on Decreasing Inappropriate Behaviors with Students Labeled Emotionally Disturbed

The forms that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Human Subjects Committee at its meeting on January 15, 2003. Your project was approved by the Committee.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals which may be required.

If the project has not been completed by January 14, 2004, you must request renewed approval for continuation of the project.

You are advised that any change in protocol in this project must be approved by resubmission of the project to the Committee for approval. Also, the principal investigator must promptly report, in writing, any unexpected problems causing risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols of such investigations as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Protection from Research Risks. The Assurance Number is IRB00000046.

APPLICATION NO. 03005
Cc: J. Stalney
February 4, 2003

Claudine Boussicant
Tallahassee, Florida 32304

Dear Ms. Boussicant:

The Leon County Research Review Board has approved your request for research, however, with conditions. There were some recommendations brought forth by the research committee members. These recommendations are explained in the attachment to this letter. Based on your proposal, the research will be approved for the period of February 2003 through February 2004. Should you desire to continue your research efforts after this period of time, you must submit a progress report on the status of your research and request renewed approval for continuation of the project. Any significant changes or amendments to the procedures or design of this study must be approved by resubmitting the request for research to the Research Review Board.

You may contact the principal of the school in which you wish to conduct your study as soon as possible. The principal is responsible for making the decision relative to his or her school. It is your responsibility to return the enclosed “Principal’s Consent for Research Participation,” signed by the principal(s) of the school(s) to be involved, prior to the start of any research. Receipt of this consent form by this office will complete the approval process.

In the interest of continued research benefits and the coordination of research interests, please send this office one copy of your results and discussion. This information, and any other relevant information you may have, will be filed in our research library and added to the annotated listing of research projects. We look forward to your results and any suggestions they may offer toward improving the educational process in Leon County Schools.

Please feel free to call me if I can of further assistance. I can be reached at 488-7007.

Sincerely,

Margarida Southard, Ph.D.
Program Monitoring and Evaluation
Chair, Research Review Board

MFS/db
Attachment

cc: Diane Brown/PACE, Forrest Van Camp, Ella Hall, Kent Hamilton, John Green, Diane Johnson
REFERENCES


Edison, C. E. (1988). The Effects of Behavioral Music Therapy on The Generalization OF Interpersonal Skills From Sessions To The Regular Classroom By Emotionally Handicapped Middle School Students


Performance of Educable Mentally Retarded in Adapted Physical Education. Ohio State University


<table>
<thead>
<tr>
<th><strong>BIOGRAPHICAL SKETCH</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong></td>
</tr>
</tbody>
</table>
| **Birth:** | August 6, 1977  
Miami, Florida |
| **Education:** | Bethune-Cookman College  
Daytona Beach, Florida  
Degree: Bachelor of Arts,  
Music Education, 2000 |
| | Florida State University  
Tallahassee, Florida  
Degree: Master of Music Therapy, 2003 |
| **Internship:** | Leon County Public Schools  
Tallahassee, Florida January 2002 |