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THE USE OF MUSIC IN THE
LEARNING DISABILITIES CLASSROOM

by

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A RESEARCH PAPER
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REQUIREMENTS FOR THE DEGREE OF
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Milwaukee, Wisconsin

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This research paper has been
approved for the Graduate Committee
of the Cardinal Stritch College by

Sister Jeanne Marie Kieckhefer
(Advisor)

Date May 1, 1977

This paper is dedicated to my parents for their
never ending love and patience.

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CHAPTER I

THE FACILITATION OF CHANGE AND LEARNING IN DISABLED LEARNERS

In the field of learning disabilities, the teacher-specialist is faced with two relative problems in the education of the academically handicapped student. These problems are to facilitate change and learning in the students and to determine the process by which to accomplish change and learning. However, the facilitation of change and learning in a roomful of disabled learners cannot be achieved all at once. Acceptance or trust of these individuals is not necessarily the formula for success. The teacher who has a considerable degree of this attitude can be fully accepting of the fear and hesitation of the student as he approaches a new problem-situation as well as the experience of success or failure. Such a teacher can accept the student's apathy, his erratic desire to explore roads of knowledge or his undisciplined efforts to achieve major goals. It is this acceptance of the student which guarantees a healthy attitude, an atmosphere of change and learning, and an increasing acceptance of change in the learning situation.

Perhaps one of the most basic of these essential attitudes in reality and genuineness in learning is through the use, acceptance, and understanding of music in the special education setting.

Music is everywhere. It is found in the sounds of nature: the birds, the insects, the animals, the rustling of the leaves and the bubbling of the waters. If the student listens, he can hear music as he walks along crowded city streets or solitary country roads. Everything has harmony, dissonance, melody, or rhythm at the same time it has sound, and these sounds are regulated and arranged according to one's way of life. From this point of view, music exists within itself: it does not have to go outside itself for its subject matter or for its cause. Listening and employing music in the special education classroom is an integral part of living and learning.

In summary, the purpose of this paper is to discuss briefly how music, when used in the learning disabilities classroom can be an effective therapeutic tool in overcoming or compensate for marginal learning deficits in the academic or social areas.

CHAPTER II

RESEARCH IN MUSIC BEHAVIOR

Early Accounts of Music as a Therapeutic Process

The use of music in the special education classroom is a relatively new addition to the behavioral sciences. Music itself has probably been an activity of man for as long as he has had religion, politics, or any sort of organization. Throughout most of man's history, music and the therapeutic process have been related to the beliefs of each civilization. It is written in the Bible that King David cured Saul by playing the harp for him. The Greeks not only built a temple to the god of medicine, Aesculapius, but devoted much philosophical thought to the influence of music on man's behavior. Plato theorized that the harmony and consonants in music had a definite relationship to man's mind and body. Aristotle used music in his medical practice as an emotional catharsis. Galean, the Greek anatomist and physician, recommended music to be used for viper and scorpion bites. There are many more accounts where music was ascribed a mystical healing power, but with the development of scientific methodology, many disciplines gradually disappeared.

Early in the Twentieth Century, medicine accelerated the development of specific treatments. Music therapy, however, lagged behind, functioning as a general treatment with little

scientific methodology or technique. Music was a soporific that was both "good for the soul" and "a way to make people feel better."¹ Not until World War II was this generic mode of treatment challenged to any extent by psychiatrists and other physicians. At this point, music therapists began to examine more closely their aims and objectives as well as their tools and skills. Examinations of practices and accomplishments made it apparent that music therapists needed to know more about man himself and his responses to music. No longer was it enough for the therapist to play for the patient and entertain him. It was apparent that more courses of study were necessary to prepare the potential therapist for his profession. Shortly thereafter it appeared necessary to pool theories and techniques so therapists could all benefit from each others experiments and investigations.

Today, it can be said that music therapy is concerned with the observation, evaluation, and prediction of behavior elicited and controlled by specific musical environments in therapeutic settings. The areas in which the therapeutic tool is utilized are numerous; but one cannot help but ask: What is so special about music and why is it used at all?

Here again the learning disabilities teacher must first come to understand man himself and what part music has played in all civilizations. The teacher must understand that man must reach out of his environment. He (man) feels a need to

¹Erwin H. Schneider, An Analysis, Evaluation and Selection of Clinical Uses of Music Therapy (Lawrence, Kansas: Teacher's Press, 1965), p. XIII.

express himself through sound and movement and derives pleasure and satisfaction from his actions. This in itself is basically human behavior. Murphy explained this phenomenon quite dearly when he stated:

"There is, however, no group of human beings which has not cultivated devices for enriching content the sensory world. . . . The word ordinarily used to describe this class of satisfaction. . . is esthetic The potentials for becoming a human being as compared with less complex kind of animals, lie largely in the enrichment and elaboration of the sensory and motor ranges of experiences. . . ." ¹

Music as an Aesthetic Value and Therapeutic Tool

Man cannot escape the formulation of aesthetic constructs. An aesthetic experience may be one of the best devices to enable man to adjust to his environment. Music has come to be an integral part of life substance. It enables man to transcend the material process. Music provides a means of expressing emotions to others and thus makes for intimate cohesiveness.

The use of music as a therapeutic tool is based on the premise that music is uniquely able to elicit certain behaviors. It provides experiences within structure. While the teacher must prepare the experience for the individuals, the mere commitment to the experience places the individual in a situation where his future behavior is determined by the musical factors. This is evident in that music demands time-ordered behavior. The unique structure of the music--existing only through time--requires the individual to commit himself to the experience moment by moment. Music, once begun, must continue without interruption in order that a complete idea or expression may result. This commitment can be varied to

¹George Murphy, Human Potentialities (New York, 1969), p. 33.

suit the individual's needs. It (the experience) demands reality-ordered behavior. Once the individual is committed to the music his behavior becomes reality ordered. It also provides experience in self-organization. A common goal in music use is to structure the experiences so that the individual receives satisfaction and seeks other experiences which lend themselves to the maintenance of better life adjustment. This provides a better self-image, a means of self-expression, opportunities for socially acceptable reward and nonreward, compensatory endeavors for the handicapped, enhancement of pride in self, successful experience, and a means for feeling needed by others. Music provides experiences in relating to others. Here the goal is to increase the size of the group in which the individual may successfully interact, to increase the range and flexibility of his behaviors in these interactions and to provide experiences which will help him relate independently. The music provides a means by which self-expression may be socially acceptable. It also provides opportunities for individual choice of response in groups, opportunities for acceptance of responsibility to self and others, provides for self-directed behavior, and it enhances verbal and nonverbal social interactions and communication. All of these behavioral responses to music are guidelines for the teacher in establishing a healthy therapeutic environment which perpetuates individual growth. These techniques are applicable to specific treatment areas which include the psychiatric patient, mentally retarded, orthopedically handicapped, academically disabled and other disabilities and disorders.

The academically disabled student, it has been noted by many authors responds most readily to the music experience. However, it must be noted that this response is not any more of a response than that of a normal child. For the learning disabled student, music does offer an area in which the student may more readily participate and even excel. The music acts as a vital ingredient in helping the student to realize his potentialities. This may be more clearly understood as the teacher looks at some of the individual difficulties of the learning disabled student. One of the most prevalent problems is oral and written communication. Their problems in communication often make it difficult to use words effectively in establishing contact. As the direct result of this deficiency the learning disabled student oftentimes experiences problems in meaningful interpersonal relationships.

Music and the Amelioration of Socially Unacceptable Behaviors

The acquisition of social skills is a vital area of learning which is often overlooked by the special educator. The student's source of gratification and self-esteem is not extinguished as soon as he leaves his educational environment. Through the use of music the student is better prepared to partake in social functions which are age-appropriate. Modification of maladaptive behaviors in students has had favorable results when music was employed as the contingent. George, in his study of an eleven year old male student employed guitar lessons as reinforcement for the lack of hitting, loud laughing, angry yelling, and fighting. For each observed occurrence of these behaviors lesson time was decreased by

one minute. Although other uncontrolled behaviors were operating, the target behaviors decreased.¹ In a similar study, Steele used music (preferred tunes); musical instruments, social approval and singing to increase the cooperative behavior of a given sample of elementary school children in a regular classroom.²

The effects of music with pre-delinquent and juvenile delinquent students were studied by Madsen and Hanser. The two studies indicate that music and musical activities can be effective reinforcers in shaping desired behaviors for pre-delinquent and delinquent students.³ A unique feature of the Hanser study was the effect of contingent music and group interaction was affected by music withdrawal. According to Nordoff and Robbins, "contact is the first step in the amelioration of the problems in interpersonal relationships."⁴ Music, because it is nonverbal, becomes the natural tool for establishing this desired contact. Group participation is also essential to the life adjustment of the learning disabled

¹Michael J. George, "Modification of Hitting, Loud Laughing, Angry Yelling, and Fighting Behaviors through Reinforcement," 1971, Music Therapy Retrival Center, School of Music, Florida State University, Tallahassee, Florida.

²Andrew L. Steele, "Programmed Use of Music to Alter Uncooperative Problem Behavior," Journal of Music Therapy, no. 5 (1968): 103-107.

³Clifford J. Madsen, "Music as Behavior Modification Techniques With Juvenile Delinquents," Journal of Music Therapy, no. 5 (1968): 72-76.

Suzanne B. Hanser, "The Effect of Contingent Music on the Behavior of Junior High School Students," Journal of Educational Research, no. 45 (1972): 451-458.

⁴Paul Nordoff and Clive Robbins, Music Therapy in Special Education, (New York, New York: John Day Company, 1971), p. 239.

person. Music is an excellent medium for group experiences, for it offers interaction at a nonverbal level, and it allows acceptable and successful non-threatening participation at different levels of ability.

Early investigation by Smith and Gottsegans found music activities to be most effective in group therapy in their study with retardates. The retardates in the experiment made successful "progress in the degree of self-expression, both verbal and kinesthetic; group relatedness developed, and parents reported increased initiative and self-expression in the home."¹ Gaston said "music offers an excellent milieu for the operation of group dynamics. Thus. . . music operates as an integrating and socializing agency by providing a situation for the adaption of suitable behaviors to group function."² The educationally handicapped student needs to feel secure; music can provide this security through its inherent innerorder and structure. Any musical activity may be repeated and thus becomes predictable. The continuous basic beat and the repetition of the melodic structure sets up an expectancy which can help alleviate the learning disabled's fear of the unknown. Gratification and consequent self-esteem is another basic need of the handicapped student. They are often very aware of their deficiency and lack of accomplishment, and this awareness affects their sense of personal worth. They experience insufficient development of self-esteem because of their

¹Max L. Hunt and R. G. Givvy, The Mentally Retarded Child, (Boston, Mass., 1958), p. 41.

²E. Thayer Gaston, "The Aesthetic Experience and Biological Man," Journal of Music Therapy, (March, 1964), p. 5.

inability to cope with the demands of society. A music experience can bring greater development of self-esteem and gratification. The music activity can be adjusted to almost every handicap and each activity allows different levels and different kinds of participation; consequently each child may be successful in some way. This is important according to Busoni, because of the basic need of ego gratification is satisfied through his success.¹ The music situation also minimizes individual differences, so that during the music activity the student is most like his peers. This child belongs to and is part of the group, because he is participating and contributing to the activity as are all others in the group. When circumstances are arranged so that the student feels secure, he has an income of self-esteem and feels equal to his peers. This result automatically sets up a situation in which the child will feel free to socialize, participate and verbalize.

Music as a Therapeutic in the Academic Related Areas

In the academic areas much research has been done to indicate that music use can be an effective tool in reinforcement of complex learning materials.

Mathematics

The first area to be discussed is mathematics. Recent research experiments have indicated that academic subjects paired with background music in the routine daily schedule increased academic successes in various complex learning

¹Ferruccio Busoni, The Essence of Music (New York, New York: Dover Publications, Inc., 1965), p. 11.

experiences. An early experiment by Cotter evaluated the effects of noncontingent preferred music on rate and accuracy of addition computation. A match-to-sample apparatus presented addition computations and four multiple-choice answers. Noncontingent music was presented to each of 38 retarded subjects via headphones for four sessions. During each session five-minute periods of preferred music were alternated with five minute periods of silence. Data collected were the number of correct computations and number of errors during music and silence. Analysis indicated significantly better performance during noncontingent music as compared to periods of silence. More addition problems were solved during music periods than ever before. In a similar study by Engel and Engel discovered that music background provided the means by which to increase performance efficiency of simple arithmetic problems in twenty-five fifth graders.¹ Music was also used as a contingent reinforcer for correctly solved math problems in two culturally deprived boys. The Grovenstein study had a positive effect when music was employed during free-time activities.²

Reading

The effects of background music on reading comprehension and study skills were found to have significant results. In the Freeburne study the rate of reading comprehension, reading

¹V. W. Cotter, "A Non-verbal Technique for Studying Music Preference," Journal of Experimental Child Psychology, no. 11 (1971): 357-365.

²E. Grovenstein, "Music Used as a Contingent Reinforcer for Math Responses in Two Culturally Deprived Boys," Psychological Record, no. 20 (1971): 107-109.

ability and the function of intelligence were studied under conditions of three types of music background.¹ The data consisted of reading test scores.² Hall, in a similar experiment studied the effects of background music in the study hall and its "positive effect" on reading comprehension of eighth and ninth grade students. An analysis of reading test scores indicate that music background used during study hall can increase the reading comprehension rate in students.³ In contrast to the Hall study, Miller employed the use of radio listening instead of taped listening and acquired quite unusual results. He discovered that the effect of background radio listening on ability to "concentrate on" study materials was adversely affected when radio listening was utilized.⁴

Attending Behaviors, Work Production and Performance

Researchers investigated the effects of music on attention span and work performance in the classroom. In the Morgan and Lindsley study, it was discovered that music can be a reinforcers of sufficient strength to maintain a high rate of responding on a simple manual task.⁵ Music,

¹A. R. Mickens, "The Effect of Music on Teaching Spelling to Educable Mentally Retarded in an Educational Setting," Council for Research in Music Education, (1971) 24: 15-23.

²C. M. Freeburne, "The Effect of Music Distraction Upon Reading Rate and Comprehension," Journal of Educational Psychology, (1972) 43: 101-109.

³J. C. Hall, "The Effect of Background Music on the Reading Comprehension of 278 Eighth and Ninth Grade Students," Journal of Educational Research, (1973) 45: 451-458.

⁴L. R. Miller, "Some Effects on Radio Listening on the Efficiency of Reading-type Study Activities," Journal of Educational Psychology, (1967), 38: 105-118.

⁵B. J. Morgan and O. R. Lindsley, "Operant Preference for Stereophonic Over Monophonic Music," Journal of Music Therapy, 3: 135-145.

when used as a contingent reward, significantly increased the number of correct responses on a work task. Podvin employed three other music conditions but found them to be less effective.¹ Another study on work performance was investigated by Wokoun.² The experimenter employed music as background, three music programs were used to see if differences could be found in work performance. The three programs used were (1) progressively more lively music, (2) staying the same, (3) less lively. The subjects performed best when the music got more and more lively. In a similar study by Zimny, it was concluded that children are influenced by calming and exciting music.³ Children seem to manifest a shorter latency and a greater magnitude of responses under the exciting music conditions but only a greater magnitude under the calming music conditions. Attending behaviors were also studied by Utecht, Scott and Kuhn. In both the Utecht and Kuhn studies token musical reinforcement was employed. The Kuhn study studied the effects of earphone listening was used as a payoff for earned tokens.⁴ Attending behaviors earned tokens for a seven-year-old retarded female in the Utecht study. Each token was redeemable for one

¹M. G. Podvin, "The Influence of Music on the Performance of a Work Task," Journal of Music Therapy (1967), 4: 52-56.

²W. Wokoun, "Effects of Music on Work Performance," U.S. Army Human Engineering Laboratories, Technical Memorandum, (1969), no. 9-68.

³G.H. Zimny, "Effects of Music Upon the GSR of Children," Child Development, (1962), 33: 891-896.

⁴T. L. Kuhn, "The Effect of a Token System on a Teacher's Social Approval Ratio, Student Off-Task Behavior and Room Noise Level," Unpublished, Dissertation, University of Illinois (1974).

minute of listening to music or playing rhythm instruments. After three weeks, the number of defined attending behaviors increased.¹ The final study on productivity was investigated by Scott. The results of the study suggest that productivity of hyperactive children in an academic setting may be enhanced by the introduction of background music. The average number of correct responses in the students increased markedly for the two music background conditions as well as the isolated condition without music over the normal group classroom setting.²

In summary, the preceding pages of research material indicate that music fulfills many of the students' needs in a most subtle and nonthreatening manner. It adds still another source from which the disabled student may better realize his potentials as a functional social being. From an educational standpoint, music enhances the curriculum in such a manner as to promote appropriate behaviors in the educational environment. Music helps the disabled learner to overcome some problems which may interfere with his learning process. The use of varied music experiences is a necessary medium in special education. Its success in the social and academic areas depend greatly on its acceptance as a necessary educational ingredient.

¹S. Utecht, "The Use of Token Musical Reinforcement to Increase the Attention Span of a Mental Retardate," Journal of Musical Therapy, (1969), 6: 122-137.

²S. J. Scott, "The Use of Music to Reduce Hyperactivity in Children," American Journal of Orthopsychiatry, (1970), 40: 677-680.

CHAPTER III

THE FUTURE OF SUCCESSFUL MUSIC EXPERIENCES IN THE LEARNING DISABILITIES CLASSROOM

Although much research in the potential of music use in the special education classroom remains to be done, it is evident that music can play an important role in the emotional and educational process.

When the learning disabilities teacher begins to use music in the resource room, he must be aware from the first experience that he is working in time and with time. The teacher should plan to hold regular sessions with music throughout the months to come and anticipate them as "spaces" to be filled with the riches of academics and personal development in children. The music experience should be carried through consistently, repeating this experience with the academic sessions. The teacher will then be initiating and maintaining the process of therapeutic growth. Session by session the child's experiences will intensify and his participation become animated and more extensive. Abilities never before seen will begin to emerge; capacities for understanding and for concentrated work will appear. All of these developments will be caught up in the content of the work and carry it further.

The use of music in the learning disabilities classroom should never be thought of as a static or routine activity, but

as an up-building, evolving process. The perspective will give flexibility to one's approach. As the teacher works with the child, he must be cognizant that for the child he is creating the foundations for development beyond the child's initial responses. The teacher must give himself entirely to the work of the moment - whatever special demands it may make - if these future developments are to be realized.

Although the teacher will often have to challenge children to intensify their activities, equally often will the teacher need to give the child time: time for his experiences to stabilize and deepen, time for his memories to work on his experiences and transform them into understanding and ability.

In conclusion, music is a language and for children it can be a stimulating language, a consoling language. It (music) can encourage, hearten, delight, and speak to the inmost part of the child's life. Music can ask stimulating questions and give satisfying answers. It can activate and then support the academic activity it has evoked. This language, when used as a therapeutic tool must be "spoken" with consciousness, care and discrimination. Just as ordinary speech - incorrectly or carelessly used - will fail in communication, so will the language of music fail to establish communication and fail to activate academic and emotional growth for the learning disabled youngster.

In summary, the purpose of this paper is to discuss briefly how music, when used in the learning disabilities classroom can be an effective therapeutic tool in overcoming or compensate for marginal learning deficits in the academic and social areas.

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