MUSIC THERAPY ASSESSMENTS: CORRELATION OF WESTPLATE'S APT-AIM AND RIDER'S M-PACD

A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

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IN THE GRADUATE SCHOOL OF THE

TEXAS WOMAN'S UNIVERSITY

COLLEGE OF HUMANITIES AND FINE ARTS

BY

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We hereby recommend that the thesis prepared under

our supervision by Julia F. Lackey

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be accepted as fulfilling this part of the requirements for the Degree of Master of Arts

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ACKNOWLEDGEMENTS

Expressions of gratitude extend out to the members of my committee for their assistance and beneficial feedback: Dr. Donald E. Michel, Chairman/Advisor, Nancy H. Howard, and Dr. John W. Flohr.

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Special appreciation is given to those TWU students who assisted me by recording data and providing inter-observer reliability.

Loving thanks is transmitted to the members of my immediate family for replenishing faith during my periods of apathy while completing this thesis.

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CHAPTER I

INTRODUCTION

Assessment "involves the collection of information that is relevant in making decisions regarding appropriate goals and objectives, teaching strategies, and program placement," (Taylor, 1984, p. 1). It acts as a gauge revealing an individual's strengths and weaknesses in the areas of education, medicine and psychology. It can also provide evidence of developmental levels. Assessment involves "a series of steps that include systematically observing, documenting, analyzing and comparing selective behaviors and physical data to determine progress on or deviation from the continuum of developmental capacities," (Erickson, 1976, p. 1).

Supporting a treatment team in prescribing a program that will provide emphasis on the individual's ability to function productively is an asset of the assessment. Music therapy plays a significant role in this individualized prescription; it creatively utilizes music to evaluate an individual mentally, physically and psychologically. As Averbach, Cohen, and Katz (1978, p. 98) state:

> A music therapy assessment is concerned with determining whether music shall be a modality of choice with counterindication, or with personal interest and response; it is concerned with determining the extent of music influence upon a developmentally disabled client with skill levels and prognosis; it is concerned with identifying nonmusical behaviors and deficits emanating from the assessment; and it is concerned with music as leisure recreation in its broad application.

Such an assessment is the Auditory Perceptual Tool-Assessment in Music test, also referred to as the APT-AIM (Westplate, 1981). Another assessment is the Musical-Perception Assessment of Cognitive Development (M-PACD) test, constructed by Rider (1981b), and based on Piaget's Stages of Cognitive Development. This latter music therapy assessment test is supported by both validation and reliability data. However, Westplate's APT-AIM needs further study supporting its validity and reliability before its use as a valid and reliable assessment in the area of music therapy can be justified.

Purpose of the Study

The purpose of this study is to conduct a preliminary analysis of the validity of Westplate's APT-AIM test by correlating it with Rider's M-PACD test, investigating the possibility of concurrent validity. No attempt was made to determine reliability in this study.

CHAPTER II

RELATED LITERATURE

Introduction

Auditory abilities are valuable for the attainment of language. Most daily events demand that a person receive, attend, sort, interpret, and respond physically and verbally to auditory stimuli. In fact, listening is considered the leading method of learning during a child's early school years; children in the primary grades prefer to gather information by listening rather than by reading. The maturation of auditory abilities relies heavily on several conditions, such as the quality and quantity of auditory stimuli surrounding the child, her/his formal and informal learning activities, and the degree to which the child has learned to pay attention to the important features of sounds (Oakland, 1971). Considering the young child's cognitive skills, one area represents her/his recognition of the environment (perception) while another area represents her/his awareness of feelings caused by the environment (social-emotional skills). Biological and cultural factors also affect the development of cognitive and social-emotional areas. Perceptual skills are vitally important in the development of cognitive abilities (Schomer, 1973).

In the receptive field of language performance (recognizing, classifying, coding, and retaining of auditory symbols) the small child's first duty is to separate the auditory stimuli from other sensory stimuli surrounding her/him. Next, the infant learns to distinguish common environmental sounds from specific sounds necessary for communication. Discriminating when sound differences are essential to meaning and when they are not is the next step up the ladder of auditory learning. The child must also learn to comprehend sentences and the effects of word order on the meaning. In addition, s/he will learn that words do not always mean what they say, and will become familiar with idiomatic expressions (Zigmond, 1968).

A number of children experience developmental barriers to the processing of auditory language and eventually to the comprehension of connecting spoken and written forms of the word (Sanders, 1977). Even though they detect sounds surrounding them and routinely pass conventional audiometric tests of hearing acuity, they are still underdeveloped in educational and psychological abilities which restrict their attention to and comprehension of auditory stimuli (Oakland, 1971).

Music Therapy Assessments

Music can act as a non-threatening activity for a child while also serving as an assessment tool in the area of cognitive development. Musical experiences can help the child develop in the areas of perceptual awareness, auditory discrimination, and motor control. Music activities can be adapted to any level of a child's emotional, physical, or mental aptitudes. Because a music therapist relies on the child's reaction to fundamental elements of music (e.g., color, intensity, melody, pitch, rhythm, speed, tone, and volume) s/he can base goals and objectives on the child's spontaneous and specific responses. These may often reveal more than her/his perceptual ability (Alvin, 1965).

A number of mental learning processes associated with sound and movement - such as memory, cognition, recognition, the comprehension of patterns of sounds and their discrimination, the ability to relate sound and movement to written symbols, and several others - can be facilitated through musical activities. Before the music therapist can prescribe specific music activities to benefit children during their cognitive development, s/he must know the child's abilities, by assessing her/his present mental, perceptual, and emotional levels. Any successful therapy method requires standards of measurement which define valid goals and objectives for clients. If music therapists are to continue to develop professionally, they must strive to customize and improve their data collecting techniques and assessments forms (Alvin, 1965).

Over the past few years, several assessment forms have been devised by music therapists and music researchers that test the individual's abilities. One such assessment form was developed by Cohen and Gericke (1972). It consists of three categories: Factual Information/Test/Observation, Therapy Recommendations and Evaluation of Assessment Results. Factual Information is usually obtained through a personal interview whlie Testing and Observation are used to determine the client's level of music skill, creative capability, and the extent of any disabilities. Therapy recommendations, the second category, designate whether music should be used as the most effective therapeutic modality. In order to fulfill client objectives, a list of activities and levels of involvement is drawn up. Evaluation of Assessment Results, the third category, records the progress of the prescribed objectives, methods, and programming.

The Joint Commission of Accreditation of Hospitals (1981) requires activity services to assess ". . . the patient's needs, interests, life experiences, capacities, and deficiencies . . .". Braswell and Brooks (1983) examined the Commission's recommendations and created an assessment form comprised of four sections: Activity Preference, Organizational Involvement, Attitude Survey, and Post-Interview Observations. The Activity Preference section appraises preferred activities of clients, the client's activity involvement, and the level of client involvement with others also taking part in activities. The second section,

Organizational Involvement, assesses the client's previous commitment to social organizations. The Attitude Survey measures attitudes, a knowledge of which is needed by activity/music therapists; i.e., altruism, optimism, interpersonal relationships, and self-concept. The fourth section, Post-Interview, provides input from the therapist regarding the client's behavior during the interview.

A behavioral music therapy assessment format developed by Johnson (1968) indicates whether music therapy should be used as a treatment modality for the client. Children are observed in nine 45-minute sessions interacting with other children in situations revealing both musical and nonmusical behaviors. In cases where specific responses can be pinpointed, a checklist is used; when specific responses are not made, then the observer records behaviors. An accumulation of data from all nine sessions is made and compiled to form an evaluation report. This report helps to determine if music is reinforcing to the child and the type of music activity most likely to be effective in achieving desired outcomes. This evaluation form includes a description of the child's physical appearance, observations of her/his social and musical behaviors and response patterns, and recommendations regarding the child's acceptance into the music therapy program.

Assessment in the activity therapy program at the Larned State Hospital in Larned, Kansas is structured so that the staff can choose from a list of short-term goals for the client, or provide an equally

specific goal if none of these short-term goals apply to a particular client. Such short-term goals include increasing tolerance for instruction, decreasing avoidance behavior in possible failure situations, and developing a realistic view of self. This plan enables activity therapists to structure their activities based on their clients' needs. The stability of clearly stated goals aids in the continuous evaluation of each client's progress (Lord, 1971).

When music therapists work in public schools, it may be necessary to complete evaluations or assessments at regular intervals as they follow the IEP (Individualized Education Program). This is accomplished by sequential reports after each grading period, revealing any alterations in social behavior and appropriate interaction with peers and others (Alley, 1979).

In devising a list of steps for music therapists to utilize when constructing program strategies, Jellison (1979) advises conducting an inclusive assessment of entry music preferences and skills. She suggests a variety of recording procedures, such as conducting interviews, writing anecdotal accounts, and/or using binary checklists, rating scales, and duration or event observation recording, taking data in both group and individual sessions. Music behavior categories such as composing, listening, performing, and singing should be investigated in the environments of home, school, and community. Music therapists need to record any nonmusic skills/preferences visible during the

testing period, including such things as eye contact with the therapist, affect during a discussion of a favorite music group, and ability to follow instructions when involved in music activities.

Piagetian developmental tasks seriation, class inclusion, conservation, and mental imagery were used as models for the development of 15 auditory tasks by Rider (b., 1981) for the assessment of preschool and elementary age children. Since most conventional tests measuring cognition use the visual mode, assessment through the auditory mode appeared to provide a barrier-free pathway to cognitive performance for the visually handicapped. Because these 15 tasks showed a strong correlation with the subjects' ages, Rider constructed his Musical-Perception Assessment of Cognitive Development (M-PACD) test. He demonstrated its acceptable reliability and validity as a developmental scale and its validity as an assessment tool for determining cognitive functioning levels (Rider, b., 1981). This test is used in the current study.

Developmental Philosophies of the APT-AIM and M-PACD

Westplate based her norm-referenced test on four critical stages of auditory perception: attention, stimulus localization, discrimination, and auditory memory. The first stage, attention, is described as the ability to guide and maintain attention to sounds, to choose an appropriate stimulus from a background of inappropriate stimuli, and to maintain attention to this stimuli for a relevant amount of time.

A child will usually respond to sound stimuli only if it is data s/he wants or needs. This ability is necessary to complete those test tasks that correlate with the ages 0-3 months, 4-9 months, and 12-13 months. Stimulus localization, the second stage of auditory perception, is the ability to determine the correspondence between auditory stimulus and the event, object, or person which causes it. To measure sound localization successfully, the source must be placed in position where both ears do not receive sound at the same time. Tasks of the APT-AIM using this capability lie in the age areas of 3-5 months, 7-9 months, and 13-16 months. The third stage, discrimination, requires the ability to discriminate one stimulus from another. Various types of stimuli, such as a pure tone, an unsteady pure tone, and speech and nonspeech sounds, are used in the assessment of auditory discrimination. Discrimination is used in successfully completing tasks mastered during the ages 8-13 months, 24-30 months, and 3-6 years. Auditory memory, the fourth stage, is used to recall and sequence information, such as names, rhymes, jingles, and story details. APT-AIM test tasks requiring the use of memory and sequencing are used with children at the developmental levels of 18-30 months and 3-6 years. All four stages are structured in a hierarchical fashion, and even though they are identified as independent readiness levels with each stage succeeding the next, their interdependence is probably more significant than their independence (Westplate, 1981).

Splinter skills can be accounted for in the APT-AIM by referring to Oakland (1971) who stated that even though the development of auditory perception follows a pattern, children are known to mature at various rates. Variations of auditory skills are noted in children of similar chronological age, experiential background, and intelligence.

Basing his cognitive skills assessment on Piaget's developmental psychology, Rider used the Stages of Cognitive Development as a foundation for the M-PACD, and developed from one to seven tasks for each stage. The first stage, sensory motor (ages 0-1 year) consists of tasks requiring circular reactions in which the child purposefully manipulates the environment to obtain an object or cause desired effect. The symbolic stage (ages 1-3 years) involves symbol formation in which the child imitates actions and sounds surrounding him. The third stage, pre-operations (ages 3-6 years), involves seriation abilities through which the child arranges objects in order according to a single dimension, such as length. The concrete operations stage (ages 6-11 years) involves attaining the ability of conservation which calls for the recognition of invariance in one dimension when other dimensions change. The last stage, formal operations, involves abstract thinking (ages eleven and up) which relies on the child's abilities to formulate hypotheses, make inferences, and draw conclusions (Rider, a., 1981).

Piaget (1963) suggests that behavior patterns of different stages do not succeed each other in a linear manner, but instead form a "layered pyramid"; new patterns are added to old ones to complete,

correct, or combine with them. Therefore, children do not move from one individual stage to another, but move in an accumulative manner with each stage integrating with previous ones. Piaget also affirms that the age at which the stages occur may vary depending on the nature of both the child's experiences and her/his hereditary potential (Wadsworth, 1971). Therefore, splinter skills cannot be accounted for in Rider's M-PACD because a child cannot move cognitively from the sensory motor stage to the pre-operations stage without passing through the symbolic stage (Piaget, 1963).

Statement of the Problem

To what extent will the APT-AIM be considered a valid assessment when correlated with the M-PACD?

H_o: There will be no significant relationship between the APT-AIM and M-PACD scores of 20 subjects, ages 3-48 months old.

CHAPTER III

METHOD

Subjects

Twenty children within 3-48 months chronological age range served as subjects for this study. This group of 10 females and 10 males were recruited from (A) New Horizons Day Care and Learning Center, (B) Texas Woman's University Child Care Center, and (C) Grace Temple Baptist Church Day Care Center. A human subjects committee review of final procedures for the study was conducted to protect these subjects (see Appendix A).

Materials

A list of the various musical instruments and nonmusical materials used for this study can be found in Westplate's thesis (1981) and Rider's M-PACD test instruction manual (Rider, a., 1981).

Procedure

In conducting the tests at three facilities, several rooms were used for testing. At Facility A, the nursery rooms of subjects (birth - 18 months old) were used for testing. The remaining subjects were tested in the cafeteria of the day care center. A large room used

as an indoor playground was used for administering tests to subjects in Facility B. The nursery rooms of subjects (birth - 18 months old) and an isolated passageway were utilized to test subjects in Facility C.

Each subject was individually tested with the APT-AIM and M-PACD within a two to five day period of time. The experimenter administered the APT-AIM first to 11 of the subjects and the M-PACD first to the remaining 9 subjects to control for a possible order effect. Because the experimenter was employed at one of the facilities, she had previously worked with 11 of the subjects tested. Prior to testing the other 9 subjects, the experimenter spent 5-10 minutes playing with them, using a hand puppet in their classrooms to gain their confidence.

For each individual task, both Rider and Westplate stated the approximate cognitive age of development and materials needed. An alternate testing procedure was provided in the M-PACD for those subjects who were unable to complete the initial procedure because of inadequate verbal skills and/or physical handicaps. Either procedure could be used as a stimulus for each item. The test was scored using "+" for pass, "-" for fail, and "0" for a transitional or almost correct response. Rider also included comments on scoring his test, describing the responses needed to receive either a passing or failing score. Criteria for assigning a transitional score were not described. The APT-AIM used the numerical scoring scale outlined below:

4 = Basic stimulus (for independent response)

3 = Basic stimulus + Verbal cue

2 = Basic stimulus + Verbal cue + Partial prompt
(physical gesture, model)

1 = Basic stimulus + Verbal cue + Partial prompt
+ Gross physical prompt

0 = No response or Active refusal

Rider incorporated an additional section for each procedure for remarks on administering the task to handicapped populations. In the APT-AIM, designed to assess different types of handicapped children, Westplate stated that adaptive procedures would be necessary for some handicapping conditions, but these procedural alterations were not specified.

Test data were recorded on forms (Appendix B p. 30, and Appendix C p. 32). The items for both tests were given in developmental order. Administration of the APT-AIM began with the first task, since any subject could demonstrate variation in maturation, and continued until the entire test was given. The experimenter started the M-PACD test at a level three tasks below the suspected mental age of the subject and continued until the child had failed three consecutive tasks.

CHAPTER IV

RESULTS

The standard formula for inter-observer reliability was used, i.e., $\frac{\text{Agreements}}{\text{Disagreements + Agreements}} \times 100$ = Percentage of Inter-observer Reliability. In two sessions, the experimenter and an observer took data independently, thus establishing inter-observer reliability (Table 1).

TABLE 1

INTER-OBSERVER RELIABILITY OF TEST PROCEDURES

Sessions	1	2
Percentage of Reliability	.988	.990

The Spearman Rho Rank Correlation Coefficient was used to test the null hypothesis that there would be no significant relationship between scores of the APT-AIM test and the M-PACD test. The correlation between the subjects' test scores on the APT-AIM and the M-PACD was .9739 ($p \leq .001$; two-tailed test). As shown in Table 2, additional information was discovered by applying the Spearman test to the correlations of the APT-AIM test and the M-PACD test with the 20 subjects' ages; these correlations were .9753 ($p \leq .001$), and .9645 ($p \leq .001$) respectively (SPSS, 1975).

The results of the Spearman Rho Rank Correlation Test thus revealed high concurrent validity between Westplate's APT-AIM test and Rider's M-PACD test.

TABLE 2.

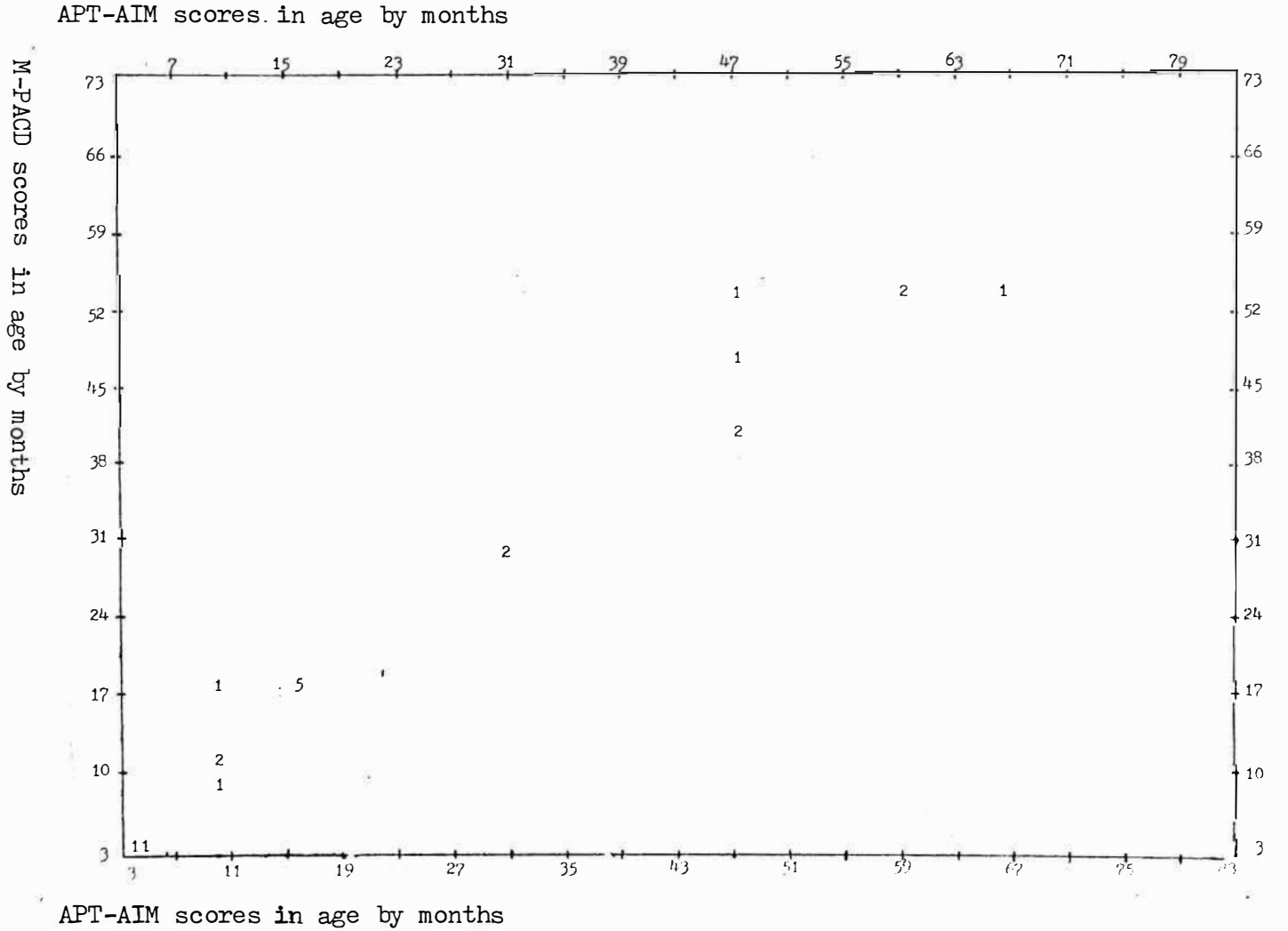
RESULTS OF THE
SPEARMAN RHO RANK CORRELATION TEST

		N	Probability (2-tailed)
APT-AIM/M-PACD	.9739	20	.001
APT-AIM/Age	.9753	20	.001
M-PACD/Age	.9645	20	.001

The scattergram (Figure 1) displays the graphing of all subjects' scores in intervals of months with APT-AIM scores on the horizontal axis and M-PACD scores on the vertical axis. The numbers located within the scattergram represent the number of subjects who received these scores.

FIGURE 1.

SCATTERGRAM SHOWING SUBJECTS'
APT-AIM AND M-PACD SCORES BY MONTHS



CHAPTER V.

CONCLUSION AND DISCUSSION

Conclusion

The present research proposed to determine the validity of Westplate's Auditory Perceptual Tool-Assessment In Music (APT-AIM) by correlating 20 subjects' APT-AIM scores with their scores from Rider's Musical-Perception Assessment of Cognitive Development (M-PACD). Statistical results from the Spearman Rho Rank Correlation Coefficient supported the rejection of this study's null hypothesis: there will be no significant relationship between the scores of the APT-AIM and the M-PACD tests. Concurrent validity was established on the basis of a significant correlation of developmental age scores of children ages three months to four years.

Discussion

The APT-AIM, a norm-referenced developmental assessment, and the M-PACD, an assessment based on Piaget's Stages of Cognitive Development, were given individually to 20 subjects, ages 3-48 months old, at three Denton Child Care Centers. Inter-observer reliability was established in two test sessions.

Final developmental age scores of the APT-AIM, which is the highest age level in which most of the skills received the score of 4, and the

M-PACD, which is the age level of the last task passed, were tallied by months and computed using the Spearman Rho Rank Correlation method. Results revealed a high correlation between the two assessment tests, thus supporting concurrent validity of the APT-AIM with the M-PACD up to the four year level.

Some confounding variables may have affected the scores of the 20 subjects tested. Eleven subjects had been exposed to the tester prior to testing, while the remaining nine subjects had not. These nine children may not have been as comfortable with the tester and may have received lower scores. Another factor possibly affecting the study was the variety of testing sites and the number of interruptions which occurred at some of these locations.

Recommendations

When using the APT-AIM on a regular basis with clients, a music therapist would not be likely to find her/himself testing more than two clients consecutively. During this study, over 50% of the subjects were tested in consecutive order with four to six other subjects. Testing four to six clients consecutively may have fatigued the tester, and may have increased the variability of the children's scores. Any further studies dealing with music therapy assessment tests should consider this factor.

When testing with the APT-AIM, the experimenter discovered that 19 of the 50 tasks required several responses in order to be scored correctly. For example, task #21 instructed the subject to touch her/his nose, mouth, and eyes. If the child could accomplish some but not all of these, no provisions were made for a partial score. The researcher suggests providing an additional "comments" category attached to the bottom of each task for partially correct scores. These comments could be utilized in selecting future therapeutic goals and objectives for the subject.

While testing subjects of normal intelligence without physical or mental defects, the experimenter was unsuccessful in all attempts to have subjects who were younger that three years of age sing along, vocalize, sing or hum the songs of tasks #8 (7-8 months level), #16 (11-12 months level), and #24 (24-27 months level). Few children of 7-8 months of age can "sing along" with the music, with/without using the words of "Old McDonald".

The melody of task #16 begins with intervals of a 5th-8th-3rd-6th, which may even present difficulty for a tester who is unfamiliar with the tune. This may present problems for children to sing also. "Little Boy Blue", the tune of task #24, has a pitch range of an octave and would be considered difficult for subjects of 24-27 months developmental level. Tunes more familiar to children might be more appropriate for testing these skills.

In scoring each task of the M-PACD, Rider specifically described the responses for passing and failing scores. However, since the transitional phase was not described for each task procedure, the experimenter was free to choose behavior descriptive of this transitional stage. Questions also arose regarding whether this transitional score should be considered a failing score when calculating the last three consecutively failed tasks. The researcher interpreted transitional scores as a failure when determining the ceiling for each subject. The transitional stage should be defined also for future reference and goal/objective setting.

When comparing both assessment tests as a whole, it was the researcher's opinion that the M-PACD would best be used for an overall developmental age level instrument but not used to set goals and objectives for clients. The APT-AIM established a developmental age level for the clients, but since it consists of 50 tasks, it could be more useful for pinpointing actual goals and objectives. While being tested with the APT-AIM, subjects grew tired of the number of similar tasks and occasionally lost interest. The M-PACD centered on games, thus keeping the subjects' interest longer with its greater variety of musical activities and fewer tasks than the APT-AIM. This factor might be taken into consideration in deciding which test would be most appropriate in a given situation.

In future validation studies of the APT-AIM test, the experimenter suggests that three children per age level be tested so that specific age levels at which variations in correlation occur may be examined.

APPENDIX A

Consent Forms

TEXAS WOMAN'S UNIVERSITY
Box 22939, TWU Station
RESEARCH AND GRANTS ADMINISTRATION
DENTON, TEXAS 76204

HUMAN SUBJECTS REVIEW COMMITTEE

Name of Investigator: Julia Lackey Center: Denton

Address: P.O. Box 22613, TWU Date: 2/4/85

Denton, TX

Dear Ms. Lackey,

Your study entitled Validity Comparison of Westplate's APT-AIM and Rider's M-PACD

has been reviewed by a committee of the Human Subjects Review Committee and it appears to meet our requirements in regard to protection of the individual's rights.

Please be reminded that both the University and the Department of Health, Education, and Welfare regulations typically require that signatures indicating informed consent be obtained from all human subjects in your studies. These are to be filed with the Human Subjects Review Committee. Any exception to this requirement is noted below. Furthermore, according to DHEW regulations, another review by the Committee is required if your project changes.

Any special provisions pertaining to your study are noted below:

_____ Add to informed consent form: No medical service or compensation is provided to subjects by the University as a result of injury from participation in research.

_____ Add to informed consent form: I UNDERSTAND THAT THE RETURN OF MY QUESTIONNAIRE CONSTITUTES MY INFORMED CONSENT TO ACT AS A SUBJECT IN THIS RESEARCH.

_____ The filing of signatures of subjects with the Human Subjects Review Committee is not required.

_____ Other:

XX No special provisions apply.

cc: Graduate School ✓
Project Director
Director of School or
Chairman of Department

Sincerely,

Donald E. Hale

Chairman, Human Subjects
Review Committee

TEXAS WOMAN'S UNIVERSITY

(Form A -- Written presentation to subject)

Consent to Act as a Subject for Research and Investigation:

(The following information is to be read to or read by the subject):

1. I hereby authorize Julie Kerley (phone 382-6127)
(Name of person(s) who will perform procedure(s) or investigation(s)

to perform the following procedure(s) or investigation(s):
(Describe in detail)

Administer the Musical Perception Assessment of Cognitive Development (M-PACD) and the Auditory Perceptual Tool Assessment in Music (API-AIM) to the child.
Both tests consist of a series of music tasks which will indicate the child's developmental level. Testing will take place at the Day Care Center between February 25 and March 15, each test taking a maximum of one hour to complete.

2. The procedure or investigation listed in Paragraph 1 has been explained to me by Julie Kerley (Name).

3.(a) understand that the procedures or investigations described in Paragraph 1 involve the following possible risks or discomforts:
(Describe in detail)

No risks or discomforts.

TEXAS WOMAN'S UNIVERSITY

(Form A - Continuation)

3.(b) I understand that the procedures and investigations described in Paragraph 1 have the following potential benefits to myself and/or others:

Test results, on request, will be given to both parents & Day Care Teachers within one month after testing

4. An offer to answer all of my questions regarding the study has been made. If alternative procedures are more advantageous to me, they have been explained. I understand that I may terminate my participation in the study at any time.

Subject's signature _____ Date _____

(If the subject is a minor, or otherwise unable to sign, complete the following):

Subject is a minor (age____), or is unable to sign because:

Signatures (one required)

Father _____ Date _____

Mother _____ Date _____

Guardian _____ Date _____

NEW HORIZONS
DAY CARE & LEARNING CENTER

829 Bolivar St.
Denton, Texas 76201

April 11,1985

To whom it may concern:

Julia Lackey has the permission of New Horizons Day Care & Learning Center to perform the music therapy assessment tests, providing she has individual written permission from the parents of the children involved. These tests will be done on New Horizons premises.

Sincerely,

Pam Davis

Pamela J. Davis
Owner/Director

TWU Texas Woman's University
P.O. Box 23973, Denton, Texas 76204 (817) 382-7032
CHILD CARE CENTER

APRIL 3, 1985

TO WHOM IT MAY CONCERN:

TWU Child Care Center consents to having Julia Lackey come into the Child Care Center to conduct a musical aptitude test on several children whose parents have given their consent.

Sincerely,

Cheryl McAllister

Cheryl McAllister
Acting Director

CMc:dh

grace temple baptist church

D. Terry Lord, Ph.D.
Pastor

Roger W. Heller
Associate Pastor

Randall Berdin
Minister of Music

Neal Davidson
Minister of College

Scott Langston
Minister of Youth

Martha Snowden
Minister of Preschool/
Children

Nancy Fowler
Director of Day Care

4-3-85

To whom it may concern,

I have given permission to Miss Julie Lackie to conduct her assessment in music test to the children that have signed consent forms from their parents.

Sincerely,

Nancy Fowler

Nancy Fowler

Day Care Director

1100 west oak denton, texas 76201 (817) 387-6137

APPENDIX B

M-PACD Data Recording Sheet

M-PACD DATA RECORDING SHEET

	Responses	Correct	Almost Correct	Incorrect
1.	Head movement in direction of sound stimulus			
2.	Successfully imitate sounds and/or exhibits self-stimulatory behavior			
3.	Grasps instrument & shakes it/physically strikes instrument			
4.	Vocally repeats 2-beat cadence/physically responds with 2-beat hand tap			
5.	Strikes instrument with mallet			
6.	Identifies loudest bell sound 2 times/imitates volume when playing, 2 times			
7.	Places both instruments in correct boxes/plays correctly matched instruments			
8.	Plays corresponding instruments for both animals (allowed to change instruments after visually seeing error)			
9.	Plays appropriate instrument for animal to move (strike xylophone, pluck autoharp)			
10.	Correctly point to fastest bell 2 times/correctly imitates speed of tester's playing)			
11.	Correctly points to bell lasting longest/vocally imitates tester with one long and one short syllable)			
12.	Makes glissando on xylophone first without prompting/second time with prompting			
13.	Moves bells closer together			
14.	Beats drum, progressively getting faster or slowerPresence of 3 tempos needed)			

APPENDIX C

APT-AIM Data Recording Sheet

APT-AIM DATA RECORDING SHEET

	4	4	3	3	2	2	1	1	0	Responses
1.		Crash cymbals together out of sight		"Listen"		Crash cymbals together in line of vision		Crash cymbals together approx. 8 inches from ears & face		Startle response to loud, sudden sounds
2.		Play bells softly out of sight		"Listen for the bells"		Strike triangle in line of vision		Strike triangle & cease child's current activity		Acknowledges bell sound through bodily gestures (smiling, eye movements)
3.		-Give bells to child -"You may play them" -Strike triangle 10 times out of sight		"Listen for the triangle"		Strike triangle in line of vision		Strike triangle & cease child's current activity		Current activity stops, quietens, diminishes at sound of triangle
4.		-Stand behind child -"We're going to play a game, find the sound. When you hear the sound of the maraca turn your head and look for the sound." -Shake maraca out of sight approx. 20 inches from child's right ear -Repeat, left ear		"Find the sound"		Point to direction of sound source		Turn head toward sound source		Child turns toward sound source
5.		-Ring bells in front of child -"You may play the bells"		"Take the bells"		Lightly tap child's hand		Take child's hand & reach for the bells		Child reaches for the bells
6.		Sing "Name Song"		-"Child's name" -"Look at me"		Touch face lightly		Position head for eye contact		Responds to name (smiling, eye contact)
7.		Sing "Name Game" with background music		-"child's name" -"Look at me"		Touch face lightly		Position head for eye contact		Attends to dominant sound
8.		Sing "Old McDonald"		-"Sing with me" -Sing song using "la" sound		Sing song in line of vision displaying tongue movement using "la"		Take child's hand & place it on tester's throat to feel movement. Tester sings song using "la"		"Sings along" with music with/without using the words

REFERENCES

Alley, J. M. (1979) Music in IEP: Therapy/Education. Journal of Music Therapy, 16, 111-127.

Alvin, J. (1965) Music for the Handicapped Child, London: Oxford University Press.

Averbach, J., Cohen, G., Katz, E. (1978) Music Therapy Assessment of the Developmentally Disabled Client. Journal of Music Therapy, 15, 98.

Braswell, C., Brooks, d. M., Decuir, A., Humphrey, T., Jacobs, K. W., Sutton, K. (1983) Development and Implementation of a Music/ Activity Therapy Intake Assessment for Psychiatric Patients. Part I: Initial Standardization Procedures on Data From University Students. Journal of Music Therapy, 20, 88-100.

Cohen, G., Gericke, O. L. (1972) Music Therapy Assessment: Prime Requisite for Determining Patient Objectives. Journal of Music Therapy, 9, 161-189.

Erickson, M. (1976) Assessment and Management of Developmental Changes in Children, Saint Louis: C. V. Mosley Company, 1.

Jellison, J. (1979) The Music Therapist in the Educational Settings: Developing and Implementing Curriculum for the Handicapped. Journal of Music Therapy, 16, 128-137.

Johnson, J. M. (1968) Evaluating Patients in Music Therapy. Journal of Music Therapy, 5, 108-110.

Joint Commission on Accreditation of Hospitals (1981) Consolidated Standards Manual, Chicago.

Lord, W. (1971) Communication of Activity Therapy Rationale. Journal of Music Therapy, 8, 68-71.

Nie, N. H., Hull, C. H., Jenkins, J. G., Steinbrenner, K., Bent, D. H. (1975) Statistical Package for the Social Sciences,(Second ed.) (SPSS) New York: McGraw-Hill.

Oakland, T., & Williams, F. (1971) Auditory Perception, Washington: Special Child Publications, Inc.

Piaget, J. (1963) The Origins of Intelligence in the Child, New York: W. W. Norton and Company, Inc.

Rider, M. (1981a) Musical-Perception Assessment of Cognitive Development, Unpublished Masters thesis, Southern Methodist University, Dallas, TX.

Rider, M. (1981b) The Assessment of Cognitive Functioning Level Through Musical Perception. Journal of Music Therapy, 18, 110-119.

Sanders, D. (1977) Auditory Perception of Speech, Englewood Cliff: Prentice-Hall, Inc.

Schomer, M. J. (1973) A Perceptual Development Program for the Music Therapist. Journal of Music Therapy, 10, 95-109.

Taylor, R. (1981) Assessment of Exceptional Students, New Jersey: Prentice-Hall, Inc., 1.

Wadsworth, B. (1971) Piaget's Theory of Cognitive Development, New York: David McKay Company, Inc.

Westplate, M. (1981) Devising An Assessment For the Music Therapist Working with Handicapped Children in Public School Special Education Programs: Auditory Perceptual Tool-Assessment In Music, Unpublished Masters thesis, Texas Woman's University, Denton, TX.

Zigmond, K., & Cicci, R. (1968) Auditory Learning, Belmont: Fearon Publishers.