This paper is concerned with findings and results of recent experimentation in learning in music, and with studies in philosophy as they relate to aesthetics in music. Because the importance of music in the growth and development of the child has been underestimated, music educators are urged first, to utilize to the fullest extent the inherent values in music as a creative art; and second, to continuously reevaluate and analyze the status of music education in terms of related fields and developments. Without exhaustive inquiry into contemporary psychology, psychiatry, sociology, and related fields, music educators will not be able to answer such basic questions as: To what extent are we utilizing applicable contemporary findings from other vitally related areas of learning? What is the relationship of these findings to learning in music? Some research findings relevant to learning music are summarized, and some new behavioral objectives are proposed based on some of the research studies. (CS)
LEARNING IS LEARNING TO LEARN HOW TO LEARN

This paper is not only concerned with recent findings and the results of recent experimentation in the areas of learning as they relate to learning in music, but it is also concerned with studies in philosophy as they relate to aesthetics in music, to values and goals in learning music. The paper is most deeply concerned with early childhood music education.

Today, it is not yet universally recognized that music education must be a very vital part of the total learning picture; the importance of music in the growth and development of the child is still underestimated, under-evaluated. In the public elementary schools of my own country it is, for the most part, still a peripheral subject; yet it is an important spoke in the Gestaltian wheel. Wherever it exists, moreover, it is subject to the same environmental conditioning, the same emotional stresses, the same economic controls, and the same changes and/or reforms as all other subjects in the elementary curriculum. It therefore becomes imperative that music educators be well informed of developments in related disciplines. Furthermore, as we are being reminded daily,
we live in a world of such continuous and rapid change that the challenge to man has become understanding "change" and its significance to each of us, singly and collectively. Man, we are told, has already become the victim of his own inventiveness; the computer has already changed his name to a number, and the machine, instead of liberating him, has already begun to restrict and restrain him.

More than ever before, it now becomes extremely important that music educators do two things: 1) utilize to the fullest possible extent, the inherent values in music as a creative art, and 2) continuously reevaluate and analyze the status of our development in terms of concomitant relationships.

The first of these two "musts" for music educators, that of utilizing to the fullest extent inherent values in music as a creative art, calls forth basic questions: What are these inherent values? Do we understand them? To what extent are they already a part of the primary aim of all music education?¹ Such questions cannot be adequately answered without comprehensive understanding of both the music and the "learner" in music. As music educators, most of our preparation for teaching has been concerned with the development of our own skills in music;
this is as it should, and must be. None the less, we now know that although our master teachers taught us that NO composer is too good, too great to compose for the youngest child, and that NO musician is too skilled to teach the youngest beginner, it is also true that these skills in music alone cannot completely serve the needs for understanding, as well as utilizing for the benefit of the child, the inherent values in music as a creative art. The threads of such understanding lie in the aesthetics of music, in the psychology and socio-psychology of music, and, of course, in child psychology; in order to utilize these inherent values, we must be knowledgeable of recent research related to the growth and development of the child. We must know the music AND the child if we are to use the music FOR the child.

Contemporary music aesthetics is concerned with the nature of music as an art, with the criteria for value judgments in music, and with the theoretical aspects of particular problems in music. The aesthetic perspective of music education differs dramatically from the socio-psychological perspective, for it is concerned principally with music, and only peripherally as the music reflects the social mores of any particular period or particular
people. It is concerned with artistic ends and with the bases for perception and reaction in music, for, herein lie the significance of the interaction of man and music. It is interested in maintaining the integrity of music as art; as such, it becomes a vital factor in the development of music education. As expressed by the eminent aesthetician in music, Abraham A. Schwadron, aesthetics must answer the philosophical questions of purpose and value in music education.²

The aesthetic approach is not a new one; over 15 years ago Foster MacMurray stated it for music educators³ and, for the past 20 years Susanne Langer has written scholarly works analyzing the role of art in the philosophy of man.⁴

Music educators must now realize that the intrinsic worth of music does NOT lie in the goals with which it has all too frequently been associated, e.g., building future audiences, enhancing athletics and games, building good public relations, preparing entertainment, reducing tensions, inspiring action, building physical coordination, teaching other subjects, etc. The intrinsic values of music lie primarily in the sheer pleasures of cognizance and understanding of 'beauty' in the sounds of music, in
the simple pleasures of making beautiful sounds. Why does
the child love music? Not because he wants to be an audi-
ence, (or even be a musician) or support games, or make
his parents and teachers happy, but only because he him-
self experiences pleasure from music. This pleasure,
observers report, is greater when the child is actively
participating in the making of the music, greater when the
child understands the music that he is making, greater when
the child understands himself in relation to the music he
is making, and even greater when the child understands how
it is that he is learning the music.

Values related to the development of the intellect
are also easily identifiable in learning music. As a
learning process, music can and does do for the mind exactly
what other challenging areas of thinking do, be they mathem-
atics, chess, or other similar intellectual activity.
Music stimulates the mind, forcing it to think ahead,
anticipate, solve problems, exercise memory, develop atten-
tion span. and think both concretely and abstractly; it
helps develop perception, conceptualization, imagination,
insight, and creativity. Music, instead of being a "rec-
reational frill" to be eliminated the moment budget cuts
are demanded, should be recognized as one of the finest
learning processes of all the disciplines. Consider the fact that in making music, the mind must simultaneously deal with tune, time, rhythm, figure, design, pitch, intonation, and possibly harmony, counterpoint, instrumentation, orchestration, etc. to say nothing of memory, psychomotor skills, and interpretation. Music making dramatically calls into action all of the educational goals in the cognitive, affective, and psychomotor domains. Yet, despite these, possibly secondary values and a few, possibly tertiary values, such as the frequently reported use of music to teach math, reading, writing, spelling, physical education, etc., the primary value of music lies ONLY within the cognizance and understanding of the beauty of the music itself and in the pleasures of participation in the music making; therefore the primary objective of music education must be the development of sensitivity to music, i.e., the development of musicality.

Psychologist in music education, Edwin Gordon, translates the primary value of music for the child into objectives and purposes of music education. Philosopher in music education, Bennett Reimer reiterates the view and develops seven major behavior categories that are relevant to aesthetic education. These take us directly into the
area of cognition and that is the field that is attracting the greatest amount of research interest today. As music educators, we have been guilty of absolutely ignoring some of the most dramatic research into how children learn; we have been satisfied instead to look for gimmicks we could mimic, to look for band wagons upon which we could jump without too much effort or study.

Here and there we have adapted or adopted Orff, Kodály, Suzuki, Manhattanville, CEMREL, Educational TV, programmed learning, and a host of other so-called innovative programs; we have readapted Dalcroze and Montessori; but we still do not know very much about HOW children learn music!

If we are to pursue the second of these (earlier stated) "musts" for music educators, that of continuously reevaluating and analyzing our own status in terms of concomitant developments and relationships, then we have a great need for exhaustive inquiry into contemporary psychology and its related fields. Without this research, we cannot answer such basic questions as: To what extent are we utilizing applicable contemporary findings from other vitally related areas of learning? What is the relationship of these findings to learning in music?
Today, we need to know more than just the music and our responsible use of it in music education; we need to know, and to use wherever applicable that which has been learned about learning in relation to the growth and development of the individual child. The threads of such understanding lie in psychology, psychiatry, and in sociology.

May this paper very briefly point out just a few of many recent findings that are extremely important to learning in music?

1. Extensive longitudinal studies in very early infancy have been conducted in categories such as motility, rhythmicity, social responsiveness, adaptability, drive endowments, sensory threshold, quality and intensity of emotional tone, perception responses, attention span and persistence, biochemical individuality, and electroencephalographic patterns.

---Initially definable characteristics of reactivity are persistent features of the child's behavior throughout the first two years.9

---Characteristics pertinent to learning have been identified.

---Unique temperamental qualities noted in infancy,
still characterize the subjects when they reach adolescence.

Both learning and maturation play a vital part in the acquisition of such skills as locomotion and prehension. (This is true also in the later developmental stages; children raised in kibbutzim were observed to be superior in intelligence, in social and emotional maturity.)

2. Extensive early studies have been done in cognition.

---Verbal skills play the single, most important role with respect to later cognitive functioning. (How language is acquired is still in the theoretical stage.)

---Internalization of speech and self-regulation develop much earlier than had been previously thought.

---The capacity for receptive language becomes substantial at about 8 or 9 months of age.

---Concepts in learning such as discovery, transfer, reinforcement, reward, etc. are still being investigated.

---Bruner is bringing new insights into the
Study of Piaget is bringing still more insights into the stages of cognitive development.  
Most of the foundations of education and general development will receive their shape and quality by about the 18th month.  
In terms of intelligence measures, about 50% of the development takes place between conception and age 4.

3. Music is a universal response clearly evidenced from the earliest infancy. (Why do we allow it to shrivel and die?)  
---Quality of voice is a factor in response.  
---Consonance and dissonance play a role in early response.  
---Volume of music is a vital factor in response.  
---Memory for simple tunes is evidenced very early.  
---Rhythmicity to music is evident early.

4. Social developments of significance begin to undergo rapid development by the end of the first year.  
---Babies seem to reveal a growing awareness of themselves and seem to be acquiring a basic
style as a social animal.

New definitions are developing based upon many of the above studies. Intelligence must somehow now be defined to include the ability to deal with new situations, the ability to solve tasks involving abstractions, the ability to learn and understand from self-experience, etc. Education must somehow now be defined to include the development of the potential of each individual child in each area of learning.

Our children are still today being educated for the needs of yesterday; they must be given opportunities (in each stage of education, in each of the many disciplines) to prepare for the needs of tomorrow. Although we cannot yet spell out these needs specifically, we do know that in order to cope with this constantly changing world, each child must be afforded opportunities to develop his ability to make value judgments, and to learn just how it is that he does learn. In music education, we as helpers must guide each child so that he is, as an individual, afforded an opportunity in music to:

1. develop his own ability to discover how it is that he learns music; this means:

   ---developing insights into his own individualistic

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learning style

---understanding his own self-growth in musical
  skills

---perceiving when his own ability is limited
  and ineffectual and not being discouraged

---understanding that each person has strengths
  and weaknesses in every skill

2. develop his own positive self-image; in music
  this means opportunity to:

---have successful experiences on his own level

---solve problems in music that challenge but do
  not defeat

---utilize varied repetitious as well as self-
  corrective materials

---develop his own skills and insights

---develop his own goals and perspectives

---develop appreciation for the growth and skills
  of others

---experience the joys of helping others learn
  in music

3. develop his own creativity; in music this means
  an opportunity for each child to:

---structure his own learning
---search for effective methods
---develop intuitive grasp of principles
---develop imagination

4. develop choice and responsibility; in music this means:

---a wide variety of hearing experiences and an opportunity to think about their differences
---freedom to explore, to discover, and to experiment for himself with a wide variety of musical 'things'
---understanding the resources and musical materials available to him and those he may desire to seek later

The above list is far from comprehensive, but, it is not within the scope of this paper to present a complete study. However, the study can make two recommendations with the hope that the ISME will consider:

1. A committee that will regularly report, with recommendations, critical analyses of research in other disciplines found to be vital to learning in music

2. A committee that will regularly report, with recommendations, explorations and applications
of the above committee's recommendations in the area of learning in music

The extraordinary and complex challenges of a continuously changing world demand that understanding of, and continuous collaboration with other disciplines be a regular part of the music educator's responsibility if intelligent choices are to be made in the planning for growth and individual development of each and every child in music.
NOTES AND REFERENCES


2. Abraham A. Schwadron, Aesthetics: Dimensions for Music Education, (Washington, D.C.: MENC, 1967) p. 4: "...the study of aesthetics affords a unique opportunity to examine the nature of the musical arts, its meanings, its implied emotionalism, its effects and values in relation to derived benefits of reality and truth." "...such study should help us understand why we are doing what we are doing, or what we ought to be doing in order to realize other goals."

3. Foster MacMurray, "Pragmatism in Music Education," in Nelson B. Henry, ed., Basic Concepts in Music Education, The Fifty-Seventh Yearbook of the National Society of Education, (Chicago: University Press, 1958), p. 41: "The aim of education is ...to help everyone to further awareness of patterns of sound as an aesthetic component in the world of experience; to increase each person's capacity to control the availability of aesthetic richness through music; and to transfer the public musical culture into a recognizable part of each person's environment."


6. Edwin Gordon, *The Psychology of Music Teaching*, (New Jersey: Prentice-Hall, Inc., 1971), p. 63: "Because students infer musical meaning from musical sound by being able to remember, organize, and conceptualize what they perceive, the general purpose of music education should be to teach students to understand the music they hear. The overall objective of music education, then, must be to consider students' individual musical needs and abilities, concomitant to identifying and establishing specific behavioral objectives. The purpose and objectives of music education are best affected through an understanding of how students learn and by adhering to teaching principles that interact with and enhance the musical learning process."


8. Allen P. Britton, "Music in Early American Public Education: A Historical Critique," in *Basic Concepts in Music Education*, op. cit., p. 207: "And to the present day many American educators have demonstrated what may be considered an easy readiness to climb aboard any intellectual band wagon which happened to be near by, and to trust it to arrive at destinations appropriate for music education, or worse, to adopt its destinations as their own without careful enough scrutiny of the intellectual proprieties involved."


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