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The Montessori Alternative Program in the Millard Public Schools.

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The Montessori Alternative Program
In The Millard Public Schools

Presented to the
Department of Educational Administration
and the
Faculty of the Graduate College
University of Nebraska at Omaha

In Partial Fulfillment
of the Requirements for the Degree
Specialist in Education
University of Nebraska at Omaha

by
Angelo D. Passarelli
April, 1990

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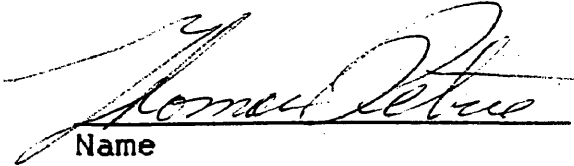
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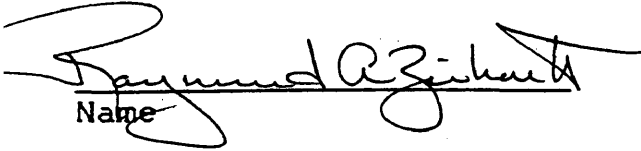
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To Susan and Joseph

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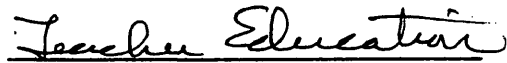
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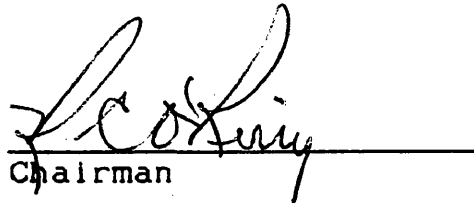

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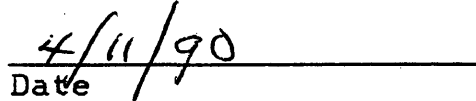

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Chapter 1

Introduction

The Millard Public School District in Omaha, Nebraska, offers a Montessori alternative program which is based upon the teachings and materials introduced by Maria Montessori in the late 1800s. The Montessori method is a balance of structure and freedom that gives children a strong basis in their formative years for developing learning skills that will take them into later education and adulthood (Standing, 1962).

Maria Montessori, Italy's first woman physician, did not set out to create a new method of education. She discovered that there were certain practices that helped handicapped youngsters to succeed (Montessori, 1949/1972). Doctor Montessori carefully observed the children in her charge. She discovered, through this observation, that certain methods and practices seemed to foster self-discipline and creativity in children. She identified these practices and materials and proceeded to use them for educating youngsters of all ability levels. The curriculum devised by Maria Montessori was intended for preschool and elementary age youngsters and neither she nor her followers pursued her ideas for secondary age youngsters (Rodman, 1985).

Now known world-wide, the Montessori methods are enjoying renewed interest in the United States. Private

Montessori schools can be found in most communities. The number of public schools with Montessori programs is small but growing. In 1988 there were 75 Montessori schools in 50 public school districts (NAMTA, 1988). Millard is the only public school district in Nebraska with a Montessori program.

The Montessori approach teaches children to build independence and self-confidence. The method is built on the child's natural love of learning and instills a life-long motivation for continuous learning. Children teach themselves through the use of specially designed materials that are self-correcting and open-ended. Children learn to work alone and in groups. Children are grouped in multi-age classrooms which promotes older students helping and modeling for younger ones (Lillard, 1972).

The Montessori teacher is the "director" of learning. The teacher develops a clear idea of each child's individual level of development through close observation. The teacher then guides the learning so the child will progress at his individual rate. Flexibility is a key element for Montessori teachers. Guidance is adjusted to fit the children and help them to do things for themselves.

Self-discipline and respect for others, that come from meaningful work and order, are the cornerstones of a Montessori classroom. Young children have a strong sense of order and can be disturbed by disorder (Millard Public Schools, 1989). A Montessori classroom stresses natural order. The Montessori method strives to promote self-motivation in children. It is recognized that self-motivation is the only valid impulse to learning, and that children working in the properly prepared environment will move themselves toward meaningful learning. The method does not encourage competition between individual students.

The differences that distinguish the Montessori system from methods more accepted in traditional public school education include:

1. "Montessori lays less stress on interaction of children and interaction between teacher and child.
2. Montessori lays less stress on creativity in the arts, but more on creativity of learning.
3. Montessori emphasizes the stronger structure of the environment and the teaching equipment with specific learning tasks in mind" (Plank, 1966, p. 44).

Millard Public Schools Montessori Alternative Program

Millard's Montessori alternative program was begun in 1979-80. The program is housed at Montclair Elementary School located at 2405 South 138 Street, Omaha, Nebraska, 68144 (see Appendix C for complete requirements). There are currently 131 Montessori students enrolled in grades kindergarten through sixth. The six classes include two kindergarten sections, two primary, and two intermediate levels. Millard's Montessori teachers have valid Nebraska teaching certificates and either American Montessori Society (AMS) Certification, Association Montessori International (AMI) Certification, or are working toward that end. Currently three of the five staff members are working to gain AMS certification, and two have this certification. Teachers are selected based upon their interest in the program.

There is no charge for Montessori education in the Millard Schools. The program is offered as a parent choice. Parents must, however, provide for transportation to Montclair in order to be eligible for the program. Children are allowed into the program if they meet regular school district requirements, including age and residency. However, children are not

accepted into the first grade or higher grades unless they have had a year of Montessori education in Millard or from another approved institution. The school district places a minimum and maximum average class size of 20 to 30 students in each room.

Problem Statement

Public school Montessori programs are subject to the same internal and external evaluations as other programs and curricula. The school district must decide if the minimum standards are being met in alternative programs. The district is also obliged to determine the extent to which a program accomplishes its stated objectives.

The purpose of this study was to ascertain the extent to which the Millard Montessori Program reflects a Certified Montessori Program.

Methodology

To evaluate the extent to which the Millard Montessori Program accomplishes the goals and objectives of a Certified Montessori Program, the researcher:

1. Identified and operationalized the Certified Montessori Program's goals and objectives (see Appendix B for evaluation instrument).

2. Applied the Certified Montessori Program evaluation procedures to each teacher in the program to assess the extent that each objective was accomplished in the Millard Montessori Program.

3. Described the congruence of the Millard Montessori Program with the Certified Montessori Program's goals and objectives.

4. Described the discrepancies between the Millard Montessori Program and the Certified Montessori Program.

Definition Of Terms

-Absorbent Mind is described in terms of laws that a Montessori teacher can use to help guide children through their schooling (Montessori, 1949/1967b).

-AMI is the Association Montessori Internationale. This association, founded by Maria Montessori in 1929, certifies teachers and institutions in Montessori education.

-AMS is the American Montessori Society. This society certifies public and private schools and teachers in Montessori Education.

-Casa de Bambini, or Children's House, is the name given to the first school using the Montessori method.

-CMP is the abbreviation for a Certified Montessori Program. This means that the program meets the goals and objectives as listed by NAMTA.

-Didactic materials are instructional materials used by the child for self-teaching.

-MMP is the abbreviation for the Millard Montessori Program.

-Montessori materials are those materials specifically designed for teaching objectives in a Certified Montessori Program. These materials are used in all Montessori-certified schools.

-NAMTA is the abbreviation for the North American Montessori Teachers' Association.

-Normalized child is one who expresses his true nature in harmony with his environment.

-Practical Life Exercises refer to the exercises through which the child learns to care for himself and his environment.

-Prepared environment is an atmosphere created to enable the child to be free to learn through his own activity in peaceful and orderly surroundings adapted to the child's size and interests.

-Sensitive periods are described as times when careful observation will describe the educational needs for each particular child (Montessori, 1949/1967b).

Limitations

This study focused on the Millard Montessori Program and therefore results may not generalize to other programs. The process of ascertaining the extent to which this program meets the goals and objectives of a certified Montessori Program may be useful as other school systems try to determine the congruence between their programs and a CMP.

Delimitations

The instrument for evaluation of goals and objectives was taken from the manual, A Montessori Operations Handbook (Kahn, 1988) and is reproduced in Appendix B.

Chapter 2

Review of Related Literature

The Millard Public School District offers a Montessori alternative educational program for parents who choose that course of study for their children. This alternative is based upon the teachings of Maria Montessori. Certain adaptations have been made in order to fit the program into the goals and objectives adopted by the Millard Board of Education. This paper examined Montessori education as it was intended by Maria Montessori. The discussion has been organized into the areas of background, philosophy, methodology, objectives, curriculum, organization and evaluation. The emphasis was on the program as described by Maria Montessori and documented in the book, The Montessori Method (Montessori, 1912/1964a).

Background

Maria Montessori was born in Chiaravalle, Italy, in 1870, the only child of well-educated, middle-class parents. She was the first woman ever granted a medical degree by an Italian University. Maria Montessori never took an education course during the course of her studies. She became interested in the problems of schools in general from her work with the mentally

retarded. At the age of 28 she became the directress of a tax-supported school for defective children. Most of her 22 students are believed to have had IQ scores ranging from 50-75. During this time Montessori developed materials and methods which allowed the children to perform reasonably well on school problems considered to be beyond their ability. Children from her school were able to pass the public examinations for primary certificates. This was as far as average Italian children ever progressed. After this accomplishment, she was indeed known as an educator, not a medical doctor (Hainstock, 1986).

In 1907 Maria Montessori had the opportunity to begin her work with average children. She was charged with 50 children aged three through six. The children came from the most impoverished background in the city of Rome. Her "Casa de Bambini," or Children's House, became a place of great discovery for the children. Montessori noticed that the children accepted some materials enthusiastically and completely ignored others. She did not force anything on the children, but offered new activities like a gift, to be taken up at will by interested children (Gettman, 1987).

The success generated by the first Children's House led Montessori to publish The Montessori Method, the first of many works that would later be translated into English as well as other languages. In 1911 Montessori opened her first school in the United States (Hainstock, 1986).

Maria Montessori died on May 6, 1952, of a cerebral hemorrhage. "Her legacy lives on through her prolific writings, filled with her seemingly endless intuitive insights into the innate ability of the child and the potential of the school. Her name has become synonymous with innovative and liberating ideas for early childhood education, and in this her contribution goes beyond the educational system that bears her name," stated Hainstock (1986, p. 18).

Proponents of the Montessori Method commented on several of the basic principles associated with Montessori Education. Elkind (1981) believed that the Montessori teacher was better trained in the art of teaching. He stated that because of the specialized training necessary for teachers, Montessori never advocated that parents teach their children in a formal way at home. The training and insight into children

belonged in the school setting. This made the school much more exclusive in that respect.

Critics of the Montessori method included Piaget. Piaget and Montessori were both concerned about the progression from the known to the unknown, the concrete to the abstract, and how to best foster an understanding to bridge that gap. However, Piaget disputed Montessori's view of sensory processes. He wrote, "Madame Montessori certainly caught a glimpse of this great truth ...but she was not sufficiently aware that perceptions like that of form or depth presuppose, from the point of view of development, not only isolated and static sensorial analyses, but a construction of a group where the combinations of the intelligence play a much more important role, in their dynamism, than the sensations which are the product of it" (DeVries & Kohlberg, 1987, p. 268).

Kilpatrick (1914/1971) examined the educational contributions of Maria Montessori. He concluded that her ideas provided no new or original theoretical contributions to the doctrine of education. However, Kilpatrick found that Montessori's most distinguished contribution was in the practical application of her educational theories in the Casa de Bambini. He stated,

"Her greatest service lies probably in the emphasis on the scientific conception of education, and in the practical utilization of liberty" (Kilpatrick, 1914/1971, p. 67).

Holt (1964) expressed concern about the unevenness of quality in Montessori classrooms and the relative isolation of Montessori educators.

DeVries and Kohlberg (1987, p. 269) recognized that the differences between Montessori education and traditional education have changed little in the past 100 years. "Montessori writings are peppered with criticisms of the traditional education of her day...stationary desks and chairs and lecture methods designed to keep children still. Traditional education of today continues these same practices Montessori criticized so long ago."

Philosophy

Montessori developed a new philosophy of education. Her philosophy was based on the belief that children would develop best in an environment of freedom and love. She regarded the child as "a great external grace which enters the family...a formative influence on the adult world" (Lillard, 1972, p. 29). Montessori believed that each child:

1. Was interactively dependent upon an integral relationship with his environment, both things and people.

2. Required freedom to develop his unique and sensitive powers (Lillard, 1972).

She further believed that although children were born with predetermined psychic patterns to guide a striving for maturity and a vital urge to achieve this maturity, children did not inherit established models of behavior which would guarantee success in achievement. Through observation, Montessori identified two internal aids to the child's development: the Sensitive Periods and the Absorbent Mind. She determined that because of these factors, education must have a new goal: to study and observe the child himself from the moment of his conception. Teachers must, in her view, aid the inner powers of the child to discover, rather than transmit, knowledge of the past (Lillard, 1972).

The Sensitive Periods include the following:

1. Order. This is a need for a precise and determined environment.

2. A desire for exploration. The use of the senses for discovery and exploration are vital instruments for intelligence.

3. The sensitive period for walking. This time is viewed as a second birth in that the child is passing from a helpless to an active being.

4. An interest in small objects.

5. An interest in the social aspects of life.

Each of these periods describes the patterns a child follows in gaining knowledge of his environment (Lillard, 1972).

The second internal aid in a child's development is the Absorbent Mind. The Absorbent Mind (Montessori, 1949/1967b) is described in terms of laws:

1. The law of work. Children achieve an integration with themselves through work.

2. The law of independence. The child's nature is aimed at functional independence.

3. The power of attention. The child begins to direct his attention to particular objects in his environment.

4. The development of the child's will. This is a slow, arduous task that evolves through continuous activity in relationship with the environment.

5. The development of intelligence. This is the key which sets in motion the mechanisms essential to education.

6. The development of the child's imagination and creativity. These are inborn powers and are related to the development of the child in his environment.

7. The development of the child's emotional and spiritual life. The child needs to develop a capacity to love and understand responses to others and to God.

8. The stages of the child's growth. These stages are well defined by chronological ages of birth to three, three to six, and six to nine years of age (Lillard, 1972).

In the Montessori classroom, the process of education was controlled not only by the interpersonal relations of teacher and children and children with each other, but primarily by the didactic materials which had been supplied to the school. These materials were the only objects of interest to which the child has access (Montessori, 1912/1964a). Montessori claimed that the material contains within itself the control of error. In other words, things were the best teachers. The liberty she spoke about is today given the name of the discovery method. The purpose or philosophy of Montessori education is to help children become decent and competent men and women in the society in which they will live.

Specifically, Montessori believed that education involved an improvement in the ability to discriminate among different classes of stimuli, accompanied by an improvement in the ability to generalize discrete classes into linked groups of classes or concepts (Montessori, 1912/1964a). Simply stated, all of the materials were designed to be useful for educational purposes and then to apply to practical life situations. Embedded in the philosophy was the attempt to organize a child's experiences in such a way as to give the child all of the skills he will need in order to be a contributing member of society (Villegas & Biwer, 1987).

In order to accomplish this, Maria Montessori (1917/1973) developed materials that are:

1. Simple, not easy. The materials are precise in their ability to allow children to learn one lesson clearly and without the risk of mixing in other lessons.

2. Inherently interesting. Materials will attract repeated attempts if the child is allowed to explore on his own.

3. Self-correcting. If the child is to be left on his own for the majority of time, there must be an allowance for self-correction so that immediate feedback is given as the materials are used.

4. Thoroughly comprehensible to the teacher. The teacher must know when to introduce or withhold the material, and how to refine any errors that might result from the use of the specific material (see Appendix A for a complete listing of materials).

Methodology

Montessori believed her method to be open-minded and not fixed. She believed in experimentation based on the observations of the child. The key ingredients in a Montessori classroom included the carefully prepared environment and the teacher who prepared that environment.

The prepared environment described by Montessori is "a nourishing place for the child" (Lillard, 1972, p. 50). It must allow for self-construction so the child will reveal his personality and growth patterns. The environment must contain what the child needs and must not present any obstacles to the child's growth.

"The environment must be carefully prepared for the child by a knowledgeable and sensitive adult" (Lillard, 1972, p. 51). This is a key element because it is the teacher, through observation of the child, who prepares the living environment. The only method of child psychology, or the knowledge of what children do know,

is gained from carefully recorded observations and experimentation of the subject.

Objectives

The Montessori classroom is based on six basic concepts (Lillard, 1972):

1. Freedom. The school environment (school furnishings) must be simple and should allow for student liberty (activity). The environment should never present obstacles to the child's growth. Freedom is the essential element. Children must be free to exhibit their level of understanding. The environment must be prepared so that it will allow the child's growth to be directed by an inner guide. The child must be given activities that direct him to independence. The child is then directed to achieve something he chose to begin.

2. Structure and order. The underlying structure and order of the universe must be reflected in the classroom. In this way the child will be able to internalize this structure and thereby build mental order and intelligence. This insures purposeful activity on the child's part. It also allows the child to know where to go to find the materials of his choice. Once he finds the materials of his choice he will be allowed to complete the cycle of activity without

interruption. He will then return the material to the place where he found it.

3. Reality and nature. The child must have the opportunity to internalize the limits of nature and reality. The child must become an observer of life. The equipment, then, is geared toward bringing the child closer to this reality. The materials of home, (the refrigerator, stove, iron, silver for polishing) are real. Only one of each of these materials is available, so that children realize that not everyone can have the same thing at once. Contact with nature is taught through the care of plants and animals. Montessori felt that the room and outside area should be alive with growing things of all kinds

4. Beauty and atmosphere. Montessori believed that true beauty was a positive aid for the developing child. True beauty is based on simplicity. Classrooms should not be filled with art and elaborate things, but the items contained in the classroom must be of good design and quality, and be attractively displayed. The colors should be bright and cheerful and harmoniously arranged. The atmosphere should be warm, relaxed, and inviting so that participation is encouraged.

5. The Montessori materials. The materials are not, in the conventional sense, there to teach the child skills. They are in the environment to assist the child's self-construction and psychic development. They are the stimuli to capture his attention and initiate concentration. The most important aspect concerning the materials is the time of presentation. Presentation must correspond to the child's inner need. Materials should be presented when the child is ready to handle the concept.

The number of materials present in the classroom must also correspond to the child's level of understanding. Typically, the classroom has few materials available for student use. As the children grow in their environment, more materials are made available. The teacher must be flexible in introducing materials or omitting them as dictated by the child's activity. Little change has taken place in the theory or practice of Montessori education, and most Montessori programs use the didactic materials in exactly the same way as suggested by Montessori eighty years ago (Bauch & Hsu, 1988).

6. Development of community life. This development is paralleled in the development of the

class of children as a community. The classroom is the children's. It belongs to them in that they use and return the materials to the shelf, they polish and scrub the tables, they maintain the daily order. This helps them identify with their environment. Students further develop the aspects of community life through social relations with each other. They are free in their environment to help and learn from each other. They are limited in their social behavior only when their actions inhibit the rights of others. The inclusion of children of different ages in the classroom helps develop the concept of community. The older children are apt to help the younger children spontaneously as well as set the proper inspiration and example.

Curriculum

The Montessori curriculum is centered around the introduction and use of the specific materials that have not changed much over the years. Maria Montessori considered the materials to be a scientific departure based on the methods of experimentation, observation, evidence or proof, the recognition of new phenomena, and their reproduction and utilization (Montessori, 1912/1964a).

Materials in the Montessori classroom are meaningful to the real world, simplified (e.g., a tower of blocks will present only variation in size--not a variation in size, color, design, and noises). Materials progress from simple to more complex, and seek to prepare the child for future learning. Materials begin as concrete expressions and gradually become more abstract.

Montessori materials are designed to control error and to allow the child to recognize the error, without adult intervention. In this respect the adult is not there to inform the child of the error, but rather the adult should dialogue with the child so that a realization of error is discovered. The premise for using the materials centers on respect and the child's own development. Materials are handled carefully with respect and are usually arranged on a mat or rug in an organized manner. This allows for proper experimentation. When the task is complete, the child returns all of the materials to the shelf in good order for the next child to use. The child is not to be interrupted when using the materials.

New material is introduced in a fundamental lesson which is given in an orderly presentation that includes

attention to brevity, simplicity, and objectivity. Once the child knows how to use the material, repetition is encouraged so that real growth can take place. After the child has repeated the use of the material, then discovery or invention of new ways to use the materials is a common occurrence and the structure encourages its likelihood.

After a concept is established in the child's mind through the manipulation of the material, the teacher will introduce the concept verbally, using the three period lesson. In the first step, the teacher simply associates the name of an object with the abstract idea (e.g., the concepts of rough and smooth). The teacher does not use extraneous words or explanations. The second step is a test to see if the child has associated the name with the material. If the child has made the association, then the third step is to ask the child to pronounce the vocabulary (Montessori, 1917/1964b).

Central to the curriculum is the development of discipline which comes from liberty (Peller, 1987). A disciplined child can regulate his own conduct. In this way a child must learn how to move rather than to sit still. The limit of liberty is the collective interest of the group (Kahn, 1987). In other words, the limit of

liberty comes when it interferes with another's activity. Through guided activity, children can become independent. Montessori believed that external rewards and punishments serve no useful purpose and should be eliminated from the school setting.

Organization

The Montessori teacher, or directress as referred to by Maria Montessori, is the person responsible for the order of introduction and the pace of introduction of the materials.

The materials are divided into four categories: the daily-living exercises involving the care of person and environment, the sensorial, the academic, and the cultural and artistic materials. Usually the child is introduced to exercises in daily living first. These are tasks that the child has observed adults doing in their own home. They may involve simple exercises such as washing tables or shining shoes, but there is not a set list of materials involved. These are established using the child's environment and culture.

After the child has been introduced to the full cycle of activities in daily living, the next step is the sensorial materials. The materials in this category refine the senses and further expand the child's

preparation by building on the order established in the exercises for daily living. Examples of these materials include the bells, geometric objects, color tablets and towers. They build the skills of perception and discrimination.

The academic materials follow the daily living and sensorial materials and are used to teach language, writing, reading, math, geography and science. They build upon inner knowledge and construction, and progress from the concrete to the abstract. The aim of the academic materials is to satisfy the desire for learning.

The cultural and artistic materials are rooted in the individual's culture. An example of this idea is found in music. A child uses the principles of music to develop the concepts of balance, control, and rhythm. Maria Montessori also applied the foundation of art and drawing as exercises to develop the muscles of the fingers and hands for holding pencils and making controlled movements. Sensorial exercises aid the child's development of an artistic appreciation. The skills in art are like those in other areas where the child is left to explore and create (Pickering, 1974).

Evaluation

Evaluation of the procedures in the Montessori classroom is completed after material is introduced. If the child is ready to manipulate the material in the correct manner, he is then allowed to practice and repeat the exercises. If there is evidence that the material is not being used properly, the material is taken out of the environment and used at a later time. Through carefully recorded observation of the child interacting with his environment, the teacher can prepare the correct materials for the child's use (Montessori, 1948/1967a). The Montessori directress is to diminish her egocentric and authoritarian attitude toward the child and adopt a passive attitude in order to aid in the child's development. The directress is to approach children with humility, recognizing her role as secondary.

Observation is synonymous with evaluation. The spirit of observation relies on the faith that the child will reveal himself to his teacher. This revelation will allow the teacher to know what her role must be. Montessori (1917/1964b, pp. 122-124) gives the following guide for observation.

WORK--note when a child begins to occupy himself for any length of time upon a task.

What the task is, how long he continues working at it (slowness in completing it, a repetition of the same exercise).

His individual peculiarities in applying himself to particular tasks.

To what tasks he applies himself during the same day, and with how much perseverance.

If he has periods of spontaneous industry, and for how many days these periods continue.

How he manifests a desire to progress.

What tasks he chooses in their sequence, working at them steadily.

Persistence in a task in spite of stimuli in his environment which would tend to distract his attention.

If after deliberate interruption he resumes the task from which his attention was distracted.

CONDUCT--Note the state of order or disorder in the acts of the child.

His disorderly actions.

Note if changes of behavior take place during the development of the phenomena of work.

Note whether during the establishment of ordered actions there are: cries of joy; intervals of serenity; and manifestations of affection.

The part the child takes in the development of his companions.

OBEDIENCE--Note if the child responds to the summons when he is called.

Note if and when the child begins to take part in the work of others with an intelligent effort.

Note when obedience to a summons becomes regular.

Note when the obedience to orders becomes established.

Note when the child obeys eagerly and joyously.

Note the relation of the various phenomena of obedience in their degrees (a) to the development of work, and (b) to the changes of conduct.

Summary

Montessori developed an educational system that continues to flourish even in the current atmosphere of restructuring and change. Her ideas and strategies continue to impact education in the United States and abroad.

Chapter 3

Design Of The Study

Procedures

Four criteria, developed from the review of literature, were used to assess the extent of congruence between the Millard Montessori Alternative Program and a Certified Montessori Program. The study focused on:

1. Teacher credentials and training.
2. Teacher activity.
3. Student activity.
4. Classroom materials and design.

In order to determine the extent of congruence between the Millard Montessori Alternative Program and a Certified Montessori Program, the researcher:

1. Met with the five Montessori teachers to discuss procedures and expectations. This meeting was held prior to a two-week observation period and alerted the staff to items contained in the observation instrument. Copies of all materials used for evaluation were available for staff members to review.

2. Each teacher was given a copy of the Employee Skills Inventory so that self-appraisals of performance could be made. The self-appraisal was based upon the staff member's personal rating on each of the 23 items

on the instrument. Criteria for the determination of the rating were made available to staff members to increase the validity of the rating.

3. Observations were conducted in each of the five Montessori classrooms and anecdotal notes were taken of teacher activity, student activity, and materials and design of the classroom, using the accepted format for teacher evaluation derived from A Montessori Operations Handbook for Teachers and Administrators (Kahn, 1988). This procedure involved multiple observations of the five classrooms over a period of two weeks. Specific information was recorded for each of the areas mentioned above. The information included a listing of classroom materials, a sketch of the room design, examples of student activity at several intervals, and descriptions of teacher activity at several intervals.

4. Conferences with each teacher were held individually in order to assess performance on each of the 23 items on the Employee Skills Inventory. At the conference, a rating based upon the following Likert scale was determined:

Rating 1 - Consistently poor performance

Rating 2 - Needs improvement

Rating 3 - Present performance is acceptable

Rating 4 - Performance is outstanding

Rating 5 - Does not apply to present duties

5. A final conference was held when the results of the appraisal were completed and compiled.

After these procedures were completed, an accurate picture of each classroom emerged. The information gleaned from the conferences shaped the instrument ratings.

Population

Montclair Elementary School employs five teachers in the Montessori Alternative Program. Two of the five have Montessori certification from the American Montessori Society and the other three have some Montessori training. The population of this study was the five teachers in the Millard Montessori Alternative Program.

Instrument

The Employee Skills Inventory and Performance Progress Report was used to assess the extent to which the Millard Montessori Alternative Program reflects a Certified Montessori Program. The instrument was taken from A Montessori Operations Handbook for Teachers and Administrators (Kahn, 1988). David Kahn is the Executive Director of the North American Montessori

Teachers' Association (NAMTA). He is the editor of the NAMTA Journal, and is the author of many articles about implementing Montessori programs in public schools. Conversations with David Kahn (personal communication, November 6, 1989) influenced the choice of this instrument. He urged the use of this instrument, considering the fact that the observer had no formal Montessori training. The instrument allowed for both a self-evaluation and an evaluation by an outside observer. The instrument included 23 items with a 1-5 Likert rating scale. Items on the instrument range from questions concerning the prepared environment to issues of staff development.

General Setting

The setting for this study was a public school in Millard that houses the district's Montessori Alternative Program. This is the only public institution in Nebraska with a Montessori Alternative Program. This study will not generalize to many situations, but certain procedures may be replicated in subsequent studies.

Assessment Criteria

1. Teacher credentials and training were assessed using personnel files for educational background and

history. These files revealed certifications, endorsements, and educational preparation which were used to compile information on each staff member. This evidence revealed a pattern for subsequent discussion of teacher training and preparation, which was used to compare the extent of congruence between the Millard Montessori Program and a Certified Montessori Program.

2 - 4. Teacher activity, student activity, and classroom materials and design were assessed using the 23 items included on the Employee Skills Inventory and Performance Progress Report (Kahn, 1988). The procedures for marking the 23 criteria in the Performance Progress Report followed the guidelines established in A Montessori Operations Handbook (Kahn, 1988).

The first of the four areas evaluated was teacher credentials. Personnel files and conferences with teachers provided information about teacher credentials and Montessori training. The next step in the evaluation process was to solicit a self-appraisal from each staff member on each of the 23 items listed on the Employees Skills Inventory.

The researcher then conducted observations with the purpose of collecting anecdotal notes that were used at

a subsequent conference with that teacher. The classroom observation centered on the following areas: Student activity, teacher activity, and classroom design and materials. Information gleaned from the conference with the teacher enabled the researcher to mark the supervisor's rating scale for each of the twenty-three items. The conference enabled the researcher to discuss salient areas of agreement and disagreement with each of the Montessori staff. Conclusions based on anecdotal notes served as evidence for marking the five-point scale used in the instrument.

The Millard Montessori Program was judged to be congruent with a Certified Montessori Program if 80 per cent of the items were mutually agreed to be at the "present performance acceptable" level or "performance is outstanding" level as marked on the Employee Skills Inventory And Performance Progress Report for Director/ Directress of a Montessori Program. The Millard Montessori Program was judged to be incongruent if no more than 60 per cent of the items were mutually agreed to be at the "present performance acceptable" level or "performance is outstanding" level.

Chapter 4

Analysis of Data

The purpose of this study was to assess the extent of congruence between the Millard Montessori Alternative Program and a Certified Montessori Program. The first area examined was teacher credentials and training. The Millard Montessori teachers are referred to as teachers A, B, C, D and E. Table 1 reflects certification and training for Montessori teaching staff.

Table 1
Teacher Certification and Training

| Staff Member | Certification | Training |
|--------------|-----------------------|------------------|
| A | Montessori & Nebraska | AMS |
| B | Montessori & Nebraska | AMS |
| C | Nebraska | Seattle Seminar |
| D | Nebraska | 6 graduate hours |
| E | Nebraska | Seattle Seminar |

Table 1 shows that teachers A and B have received both Nebraska certification and age-appropriate Montessori Certification. Information from conferences with staff members revealed that teacher C has completed course work for American Montessori Society (AMS) certification and is planning to complete the practice teaching requirement. Teachers D and E are not currently enrolled in Montessori Certification classes. The Seattle Seminar was sponsored by the Millard Public Schools in 1985. Teachers designated to teach in the Millard Public Schools Montessori Alternative Program were sent to Seattle for a three week initial training seminar in the Montessori Method.

Information from the Employee Skills Inventory (Kahn, 1988) was compiled for each of the five Montessori teachers in this study. Tables 2 - 9 reflect the compiled results of the teachers' and administrator's ratings.

Table 2
Employee Skills Inventory, Items 1-3

| EMPLOYEE'S SELF-APPRAISAL | | | | | PERFORMANCE CRITERIA | ADMINISTRATOR'S APPRAISAL | | | | |
|---------------------------|---|---|---|---|--|---------------------------|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 |
| A | | | X | | 1. Prepare an environment in which the furnishings and materials are complete and correspond to the needs of the group. | | | | X | |
| B | | | X | | | | | | X | |
| C | | | X | | | | | X | | |
| D | X | | | | | | X | | | |
| E | | X | | | | | | X | | |
| A | | | X | | 2. Responsible for the care and maintenance of classroom materials, i.e. maintain orderly environment, keeping it clean and in like-new condition. | | | | X | |
| B | | X | | | | | | X | | |
| C | | | X | | | | X | | | |
| D | X | | | | | | X | | | |
| E | | X | | | | | X | | | |
| A | | | | X | 3. Set aside time to give assistant opportunity to share questions and observations. | | | | | X |
| B | X | | | | | | | X | | |
| C | | | X | | | | | X | | |
| D | | X | | | | | | X | | |
| E | | X | | | | | | X | | |

Table 2 shows the ratings for items 1, 2, and 3. Observations revealed a number of factors that contributed to the administrator's appraisal of each particular item. The prepared environment was observed on each occasion and ratings reflect the materials available, the sense of order, and accessibility of materials. Item 1 also includes appropriate materials for the differing age and function of the students in the classroom.

Care and maintenance of classroom items was considered in rating item number 2. A sense of order

was apparent in two of the classrooms, while order in the other classrooms was not visibly apparent.

Schedules of paraprofessional time with students and teachers were the basis for marking item number 3. Teacher A does not have paraprofessional assistance, while the other teachers have varying responsibilities with regard to scheduling paraprofessional time with students.

Table 3
Employee Skills Inventory, Items 4 and 5

| EMPLOYEE'S SELF-APPRAISAL | | | | | PERFORMANCE CRITERIA | ADMINISTRATOR'S APPRAISAL | | | | |
|---------------------------|---|---|---|---|---|---------------------------|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 |
| A | | | | X | 4. Supervise assistant and supervise Special Instructors who deal with children in the group. | | | X | | |
| B | | X | | | | | | X | | |
| C | | X | | | | | | X | | |
| D | | | X | | | | | X | | |
| E | | | X | | | | | X | | |
| A | | | | | 5. Assist Administrator in developing and implementing adult orientation courses and seminars as requested. | | | | | X |
| B | | X | | | | | | X | | |
| C | | | | | | | | | | X |
| D | | | | | | | | | | X |
| E | | | | | | | | | | X |

Table 3 shows the compiled response for items 4 and 5. Item 4 deals with the management of the paraprofessional and volunteer parents who work in the classroom. The conference revealed that staff considered item 4 to mean the paraprofessional only, and not the

parent volunteers that are present in each room. Item 5 is a task assigned to the Montessori Department Chairperson, teacher B. The noted variance in job description can be accounted for in the definition of "Special Instructors."

Table 4
Employee Skills Inventory, Items 6-9

| EMPLOYEE'S SELF-APPRAISAL | | | | | PERFORMANCE CRITERIA | ADMINISTRATOR'S APPRAISAL | | | | |
|---------------------------|-------------|---|---|---|--|---------------------------|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 |
| A | | | X | | 6. Maintain inventory of classroom. | | | X | | |
| B | | | X | | | | | X | | |
| C | | X | | | | | | X | | |
| D | NO RESPONSE | | | | | | | X | | |
| E | X | | | | | | | X | | |
| A | | | | X | 7. Maintain current attendance records. | | | X | | |
| B | | | X | | | | | X | | |
| C | | | | X | | | | X | | |
| D | | | X | | | | | X | | |
| E | | | | X | | | | X | | |
| A | | | | X | 8. Attend staff meetings, monthly parent meeting, annual planning retreat and any special meeting(s) requested by the Administrator. | | | X | | |
| B | | | X | | | | | X | | |
| C | | | | X | | | | X | | |
| D | | | | X | | | | X | | |
| E | | | | X | | | | X | | |
| A | | | | X | 9. Attend at least one pre-planned, professional in-service yearly (approved by the Administrator). | | | | X | |
| B | | | | X | | | | | X | |
| C | | | | X | | | | | X | |
| D | | | | X | | | | | X | |
| E | | | | X | | | | | X | |

Table 4 shows the response to items 6, 7, 8, and 9. Information from observational records, staff attendance, and inservice schedules was used to rate

these items. Staff ratings reflect a great deal of inconsistency with regard to items 6 and 7. Most of the Montessori materials are managed collectively. The question was an attempt to consider inventories of Montessori materials found in each classroom, but staff considered the materials that are maintained collectively instead. Consistency in the response is achieved with staff members A and B. Items 8 and 9 were rated consistently with the administrator's appraisal.

Table 5
Employee Skills Inventory, Items 10-13

| | EMPLOYEE'S SELF-APPRAISAL | | | | | PERFORMANCE CRITERIA | ADMINISTRATOR'S APPRAISAL | | | | |
|---|---------------------------|---|---|---|---|---|---------------------------|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 |
| A | | | | X | | 10. Present weekly overview of class work. | | | | X | |
| B | | | X | | | | | | | X | |
| C | | | | X | | | | | X | | |
| D | | | | X | | | | | X | | |
| E | | | | X | | | | | X | | |
| A | | | | X | | 11. Maintain current accurate academic records. Hold three conferences yearly with the parents in regard to their child's specific needs. | | | | X | |
| B | | | X | | | | | | X | | |
| C | | | | X | | | | | X | | |
| D | | | | X | | | | | X | | |
| E | | | | X | | | | | X | | |
| A | | | | X | | 12. Submit academic records and other records requested to the Administrator at the end of the school year. | | | | | X |
| B | | | X | | | | | | | | X |
| C | | | | X | | | | | | | X |
| D | NO RESPONSE | | | | | | | | | | X |
| E | | | | X | | | | | | | X |
| A | | | | X | | 13. Submit academic records during the year as requested by the Administrator. | | | X | | |
| B | | | X | | | | | | X | | |
| C | | | | X | | | | | X | | |
| D | | | | X | | | | | X | | |
| E | | | | | X | | | | X | | |

Table 5 indicates the responses to items 10, 11, 12, and 13. Generally, items in this section are consistent, but some minor disagreement is found. Item number 10 deals with observed overviews of class work and expectations for the week ahead. Ratings for this category are a result of staff conferences. Information indicates areas of agreement with regard to administrative requests in item 13.

Table 6
Employee Skills Inventory, Items 14-16

| EMPLOYEE'S SELF-APPRAISAL | | | | | PERFORMANCE CRITERIA | ADMINISTRATOR'S APPRAISAL | | | | |
|------------------------------|---|---|---|---|---|------------------------------|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 |
| A | | | X | | 14. Responsible with the assistant to see children are supervised at all times. | | | X | | |
| B | | X | | | | | | X | | |
| C | | | X | | | | | X | | |
| D | | | X | | | | | X | | |
| E | | | X | | | | | X | | |
| A | | | X | | 15. Notify Administrator immediately of personal difficulties with children, parents, or staff. | | | X | | |
| B | | X | | | | | | X | | |
| C | | | X | | | | | | X | |
| D | | | X | | | | | X | | |
| E | | X | | | | | | X | | |
| A | | | X | | 16. Protect the privacy and working atmosphere of the group at all times. | | | | X | |
| B | | | X | | | | | | X | |
| C | | | X | | | | X | | | |
| D | | | X | | | | | | X | |
| E | | X | | | | | | | X | |

Table 6 shows the compiled responses for items 14, 15, and 16. Observational records were used for the ratings of item 14. These records indicate that

children are appropriately supervised by staff, including appropriate paraprofessional staff.

Observational data from individual teacher conferences was used to justify the rating on item 15. Staff members confer with the administrator in charge when problems occur. Item 16 deals with privacy and confidentiality. One teacher's rating reflects a particular weakness in this area as viewed by the administrator.

Table 7
Employee Skills Inventory, Items 17-19

| EMPLOYEE'S SELF-APPRAISAL | | | | | PERFORMANCE CRITERIA | ADMINISTRATORS'S APPRAISAL | | | | |
|---------------------------|---|---|---|---|--|----------------------------|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 |
| A | | | X | | 17. Conduct class meetings for parents when appropriate, and communicate and cooperate with classroom representatives. | | | X | | |
| B | | X | | | | | | X | | |
| C | | | X | | | | | X | | |
| D | | | X | | | | | X | | |
| E | | | | X | | | | X | | |
| A | | | X | | 18. Communicate and cooperate with the Administrator on program changes. | | | | X | |
| B | | X | | | | | | | X | |
| C | | | X | | | | | | X | |
| D | | | | X | | | | | X | |
| E | | | X | | | | | | X | |
| A | | | X | | 19. Submit a minimum of one article per year for the newsletter. | | | | X | |
| B | | X | | | | | | | X | |
| C | | | X | | | | | | X | |
| D | | | X | | | | | | X | |
| E | | | X | | | | | | X | |

Table 7 reflects the compiled results of items 17, 18, and 19 on the Employees Skills Inventory.

Information from school-sponsored events, including Curriculum Night and Parent/Teacher conferences, was used to rate item 17. Program changes are initiated and implemented through the designated Montessori Department Chairperson, Teacher B. Communication with Teacher B in regard to program changes was used as a basis for the rating on item 18. Newsletters are distributed to parents quarterly. Each staff member is expected to contribute to the newsletter each time. Montessori staff have the major responsibility of writing and editing the newsletter once during the school year.

Table 8
Employee Skills Inventory, Items 20-23

| EMPLOYEE'S SELF-APPRAISAL | | | | | PERFORMANCE CRITERIA | ADMINISTRATOR'S APPRAISAL | | | | |
|------------------------------|---|---|---|---|---|------------------------------|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 |
| A | | | X | | 20. Train and supervise children in the execution of fire drills. The routine is to be clearly established and the building exited with dispatch and order. | | | | X | |
| B | | X | | | | | | | X | |
| C | | | X | | | | | | X | |
| D | | | X | | | | | | X | |
| E | | | X | | | | | | X | |
| A | | | X | | 21. Report any and all accidents at once. Prepare a written report stating date, time, nature of accident, and action taken. | | | X | | |
| B | | X | | | | | | X | | |
| C | | | X | | | | | X | | |
| D | | | X | | | | | X | | |
| E | | | X | | | | | X | | |
| A | | | X | | 22. Assist with other projects, programs and planning as assigned by the Administrator and/or supervisor. | | | | X | |
| B | | | X | | | | | | X | |
| C | | | X | | | | | | X | |
| D | | | X | | | | | | X | |
| E | | | X | | | | | | X | |
| A | | | X | | 23. Understand and exhibit a professional manner. | | | X | | |
| B | | | X | | | | | X | | |
| C | | | X | | | | X | | | |
| D | | | X | | | | | X | | |
| E | | | X | | | | | X | | |

Table 8 reflects the compiled data for items 20, 21, 22, and 23. Fire drills are held monthly, as directed by the state fire marshal. Observation from drill records are the basis for the rating. Accident reports are required for any injury sustained at school. Information from the nurse's log and from accident reports was the basis for the rating on item 21. Generally, the Montessori staff members participate in

all school functions as reflected in item 23. They have maintained a leadership or participation role in events, including the Community Donut Breakfast, Effective Schools Team, District Curriculum Committees, Building Social Committees and extra duty assignments. Observations and anecdotal records are the basis for ratings on item 23.

Table 9
Employee Skills Inventory, Comments

| EMPLOYEE'S SELF-APPRAISAL | PERFORMANCE CRITERIA | ADMINISTRATOR'S APPRAISAL |
|------------------------------|--|------------------------------|
| | Additional comments: Administrator <hr/> <hr/> <hr/> | |
| | Additional comments: Director / Directress A. I love what I do. Montclair is a great place to be. C. I really like what I'm doing. D. Montclair staff has been very supportive in helping me this school year! | |

Table 9 indicates the additional comments that were written by staff. Administrator's comments were not included for reasons of confidentiality but included

items such as discussion of curricular adjustments for students, establishing student expectations, care and maintenance of materials and professional confidentiality.

Classroom observations and records of conferences were used to determine ratings for the areas of teacher and student activity. Classroom materials and design were observed both during class and before and after class. Information from staff conferences was also used to determine knowledge of materials and student activities. These areas are discussed further in subsequent chapters.

Table 10 shows the compiled results of the response to the Employees Skills Inventory. The percentage of items marked at levels 1 or 2 and 3 or 4 appear in the far right columns.

Table 10
Compiled Teacher/Administrator Perceptions

| Staff Member | Teacher-appraisal/Administrator appraisal | | | | | Teacher/ % at 1 or 2 | Administrator/ % at 3 or 4 |
|--------------|---|-------|-------|-------|-------|----------------------------|----------------------------------|
| | 1 | 2 | 3 | 4 | 5 | | |
| A | 0 / 0 | 0 / 0 | 1/10 | 20/10 | 2 / 3 | 0 / 0 | 91 / 87 |
| B | 0 / 0 | 3 / 0 | 15/14 | 5/ 8 | 0 / 1 | 13 / 0 | 87 / 96 |
| C | 0 / 0 | 2 / 2 | 0/12 | 20/ 7 | 1/ 2 | 9 / 9 | 87 / 83 |
| D | 0 / 0 | 2 / 3 | 3/13 | 14/ 5 | 2 / 2 | 9 /13 | 74 / 78 |
| E | 1 / 0 | 0 / 1 | 6/14 | 13/ 6 | 3 / 2 | 4 / 4 | 83 / 87 |

Chapter 5

Summary, Conclusions, and Recommendations

The task of determining the congruence between a Montessori Alternative Program and a Certified Montessori Program is not one that is new to Montessori researchers. An authentic Montessori classroom has not been clearly defined. Boehnlein (1988) suggests that an authentic Montessori program has the following criteria:

1. The teacher holds a recognized Montessori diploma: AMI or AMS.
2. The classroom is fully equipped in all basic areas, and the curriculum areas are supplemented by handmade materials appropriate to the class.
3. The class consists of mixed ages of children three to six years of age with a new class beginning with a minimum of 12-15 three and four year olds gradually building to 20-25. For the Elementary level the age spans were six to nine years-of-age and/or nine to 12 years-of-age.
4. The school day is a minimum of two and one-half to three hours daily for five days per week for nine months.

5. The classroom aide functions as an aide, not as a teacher, and is one person, not a series of persons rotating duties.

6. The full Montessori curriculum; language, mathematics, practical life, sensorial, and cultural areas is available to the child within a structure of freedom of choice for extended, uninterrupted individual and small group work time at the preschool level. In elementary level, the curriculum is appropriately expanded in all subject matter areas and includes more group work (p. 6).

The basis for the difficulty in determining what is truly Montessori lies in the lack of a consistently applied definition of Montessori instruction. The American Montessori Society and the Association of Montessori Internationales have differing opinions on what is an authentic Montessori classroom. The other problem encountered by past researchers has been the training and background of the researcher. Some argue that only Montessori trained experts can make a subjective determination of Montessori authenticity. Mary Boehnlein ("Prove It," 1990) states, "We'll have to trust that a trained teacher has certain skills and qualities we're talking about" (p. 1).

The question of authenticity is also raised by Dorothy Ohlhaber (1990) who states, "Individual schools with a Montessori program usually have more than one example of compromised ideals" (p. 6). She cites an example of a teacher who told the children that when they were through with their deskwork, they could use the Montessori equipment. Public schools tend to alter traditional Montessori concepts to fit their individual needs and standards. This is another reason for the difficulty in determining authentic Montessori education.

An observation instrument that could help determine the authenticity of a Montessori program is sorely missing. The task of developing such an instrument is being considered by Chattin-McNichols (1990), who states, "You really can't evaluate the effectiveness of a Montessori program until you can determine if the program is, in fact, following the principles of Montessori education. We need an objective instrument--an observation form--that a non-Montessori researcher could use to determine if a classroom is 'Montessori' or not--or if it is in a gray area" (p. 11). He suggests the need for a checklist that examines the presence or absence of certain kinds of materials,

teacher behaviors, and selected student behaviors. A form could make it possible to categorize Montessori programs into one of three areas: true Montessori programs, marginal Montessori programs, and clearly non-Montessori programs.

The purpose of this study was to assess the extent of congruence between the Millard Montessori Alternative Program and a Certified Montessori Program. To assess the level of congruence between a Certified Montessori Program and the Millard Montessori Alternative Program, credentials of teachers in the Millard Montessori Program were examined. Classroom observations were conducted to gather data on student and teacher activity. Ratings on the Employee Skills Inventory were compiled, using both a self-appraisal and an administrative appraisal. Conferences with teachers were held in order to determine materials and classroom design.

Conclusions

1. In the area of credentials, two of the five Montessori teachers have the appropriate Montessori certification. One teacher is working toward Montessori certification. The other two staff members have experiences with Montessori, but are not currently in a

program that will end in Montessori certification. In this area, the program does not closely resemble a Certified Montessori Program, since Montessori certification is a prerequisite for a Certified Montessori Program in private institutions. Maria Montessori was insistent about the specific training of staff who used her method. Montessori insisted on teachers who, when properly trained, would aid the inner powers of the child, rather than transmit knowledge of the past (Lillard, 1972).

2. Teacher activity was judged by the Employee Skills Inventory to be within the range of a Certified Montessori Program (80% of the items marked as acceptable or outstanding by both the teacher and administrator). Observations revealed more similarities between the Millard Montessori Alternative Program and a Certified Montessori Program in classrooms containing a Montessori-certified instructor. Observations in the Montessori-certified classrooms indicated more child-watching behaviors by teachers, including the use of anecdotal record keeping, logs of student activities, and work selection lists. The Montessori-certified teachers' classrooms were more in line with what Lillard (1972, p. 51) characterized as a

Montessori Teacher: "The environment must be carefully prepared for the child by a knowledgeable and sensitive adult."

In a properly prepared environment the child will reveal himself to the teacher. The Montessori teacher's role is secondary in the environment. The child has the key to the learning (Montessori, 1917/1964b).

3. Student activity was judged by the Employee Skills Inventory to be within the range of a Certified Montessori Program (80% of the items marked as acceptable or outstanding by both the teacher and administrator). Observations revealed differences in student activity in the Montessori-certified classroom and the non-Montessori certified classroom.

Students lacked the multi-age grouping suggested by Maria Montessori in the kindergarten classroom. The teacher attempted to compensate for this problem by using students in other grade levels to come in and work with her students on special occasions. The narrow age grouping of students in this class is a concern to the teacher. The kindergarten room, with children basically at one age, is not normally a situation found in most Certified Montessori Programs.

Three of the four classrooms did have the appropriate age span of children (6-9 years of age or 9-12 years of age). The other room had children from 6-8 years of age, however this is not judged to be a significant factor in these rooms when comparing the two programs.

Certified Montessori Programs, like public schools, have little control over the age of the children coming to them, so this factor is not seen as contributing to incongruence between a Certified Montessori Program and Millard Montessori Alternative Program.

4. The area of classroom materials and design was judged to be congruent with a Certified Montessori Program (80% of the items marked as acceptable or outstanding by both the teacher and administrator). The materials and environment in Montessori-certified classrooms more closely matched the Certified Montessori Program described in Chapter 2. Frequent use of traditional school materials was observed in classrooms of non-Montessori certified teachers. Maria Montessori believed in the strict and controlled use of materials. She also believed that the materials should be in the environment to assist the child's self-construction and psychic development. The material is the stimuli to

capture attention and initiate concentration (Bauch & Hsu, 1988).

All classrooms made use of child-level shelving, and had materials suggested by the Montessori Method. However, the use of the material was found to be inconsistent. Observations indicated that extraneous materials were used and incorporated into Montessori lessons in some classrooms. The care and upkeep of materials was also inconsistent. Evidence of missing parts and misplaced items was observed. This contradicts Montessori's teaching of respect for the environment and the care of the materials in it.

The Millard Public School District has successfully initiated a Montessori Alternative Program that parallels a Certified Montessori Program. In the area of teacher credentials, the Millard program does not closely resemble a Certified Montessori Program. In the areas of teacher and student activity, the Millard program is more congruent with a Certified Montessori Program in those classrooms which have Montessori-certified staff members. In the area of classroom materials and design, the Millard program appears to be the most congruent with the description of a Certified Montessori Program. However, the use of the

materials is not always consistent with Montessori teaching.

Recommendations

This study indicates that in classrooms with properly trained, Montessori-certified staff, the congruence between a Certified Montessori Program and the Millard Montessori Program is greater.

Therefore, the following recommendations are made:

1. The three non-Montessori certified staff members should be encouraged to complete Montessori certification training at the earliest possible time.
2. All future staff members should have appropriate Nebraska and Montessori Certification.
3. Administrators in charge of the program should receive continuing Montessori training. While essential characteristics were clearly evident, the study increased the administrator's comprehension of the program. This comprehension added to the expertise and authority of the administrator and to his capacity to more meaningfully serve the Montessori students, teachers, and parents.
4. Further research is needed to find a method of evaluating Montessori programs which would generalize to public school settings.

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Appendix A
Materials
(Hainstock, 1986)

Montessori Materials

Motor Education / Practical Life Exercises

Dressing frames
 Polishing shoes
 Washing hands
 Pouring rice/water
 Sweeping
 Setting table
 Sorting, twisting
 Scrubbing, peeling, polishing
 Washing and drying dishes and hands
 Cutting and pasting
 Walking a line

Sensory Education / Tactile

Rough and smooth boards
 Fabrics
 Mystery bag
 Baric Tablets
 Thermal bottles

Sensory Education / Visual

Knobbed cylinders
 Knobless cylinders
 Pink tower
 Brown stair
 Long rods
 Color tablets
 Geometric cabinet
 Constructive triangles
 Binomial and trinomial cubes

Sensory Education / Auditory

Sound cylinders
 Bells
 Silence game

Sensory Education / Gustatory

Tasting bottles

Sensory Education / Olfactory

Smell bottles

Language

- Sandpaper letters
- Metal inserts
- Moveable alphabet
- Phonetic words
- Initial consonants
- Object and words
- Phonogram booklets
- Parts of speech
- Singular and plural
- Positive, comparative, superlative
- Grammar symbols

Arithmetic

- Number rods
- Sandpaper numbers
- Spindle box
- Golden bead material
- Bead frames
- Fraction insets
- Sequin board
- Charts and boards for addition, subtraction, multiplication and division

Appendix B
EVALUATION INSTRUMENT

EMPLOYEE SKILLS INVENTORY
AND PERFORMANCE PROGRESS REPORT
Director / Directress

Name _____

Year _____

Rating code - Employee

1. I need considerable improvement in this area.
2. My present performance is good; I expect to improve.
3. My present performance is acceptable to me.
4. My performance is very good.
5. This does not apply to my present job duties.

Rating code - Supervisor

1. Consistently poor performance.
2. Needs improvement.
3. Present performance is acceptable.
4. Performance is outstanding.
5. Does not apply to present job duties.

PLEASE CHECK THE APPROPRIATE RESPONSE.

EMPLOYEE'S
SELF-APPRAISAL

PERFORMANCE CRITERIA

ADMINISTRATOR'S
APPRAISAL

| 1 2 3 4 5 | | | | | | 1 2 3 4 5 | | | | |
|-------------------|--|--|--|--|--|-------------------|--|--|--|--|
| | | | | | 1. Prepare an environment in which the furnishings and materials are complete and correspond to the needs of the group. | | | | | |
| | | | | | 2. Responsible for the care and maintenance of classroom materials, i.e. maintain orderly environment, keeping it clean and in like-new condition. | | | | | |
| | | | | | 3. Set aside time to give assistant opportunity to share questions and observations. | | | | | |
| | | | | | 4. Supervise assistant and supervise Special Instructors who deal with children in the group. | | | | | |
| | | | | | 5. Assist Administrator in developing and implementing adult orientation courses and seminars as requested. | | | | | |

| EMPLOYEE'S SELF-APPRAISAL | | | | | PERFORMANCE CRITERIA | ADMINISTRATOR'S APPRAISAL | | | | |
|------------------------------|---|---|---|---|---|------------------------------|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 |
| | | | | | 6. Maintain inventory of classroom. | | | | | |
| | | | | | 7. Maintain current attendance records. | | | | | |
| | | | | | 8. Attend staff meetings, monthly parent meeting, annual planning retreat and any special meeting(s) requested by the Administrator. | | | | | |
| | | | | | 9. Attend at least one pre-planned, professional in-service yearly (approved by the Administrator). | | | | | |
| | | | | | 10. Present weekly overview of class work. | | | | | |
| | | | | | 11. Maintain current accurate academic records. Hold three conferences yearly with the parents in regard to their child's specific needs. | | | | | |
| | | | | | 12. Submit academic records and other records requested to the Administrator the end of the school year. | | | | | |
| | | | | | 13. Submit academic records during the year as requested by the Administrator. | | | | | |

| EMPLOYEE'S SELF-APPRAISAL | | | | | PERFORMANCE CRITERIA | ADMINISTRATOR'S APPRAISAL | | | | |
|------------------------------|---|---|---|---|---|------------------------------|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 |
| | | | | | 14. Responsible with the assistant to see children are supervised at all times. | | | | | |
| | | | | | 15. Notify Administrator immediately of personal difficulties with children, parents, or staff. | | | | | |
| | | | | | 16. Protect the privacy and working atmosphere of the group at all times. | | | | | |
| | | | | | 17. Conduct class meetings for parents when appropriate, and communicate and cooperate with classroom representatives. | | | | | |
| | | | | | 18. Communicate and cooperate with the Administrator on program changes. | | | | | |
| | | | | | 19. Submit a minimum of one article per year for the newsletter. | | | | | |
| | | | | | 20. Train and supervise children in the execution of fire drills. The routine is to be clearly established and the building exited with dispatch and order. | | | | | |
| | | | | | 21. Report any and all accidents at once. Prepare a written report stating date, time, nature of accident, and action taken. | | | | | |

Appendix C
Millard Public Schools
Montessori Alternative Program

STUDENT ENROLLMENT PROCEDURES
 MONTESSORI
 MILLARD PUBLIC SCHOOLS
 1990-91

INTRODUCTION:

Students are enrolled in Millard's Montessori program based on parent choice. Parents who choose Montessori for their children are generally those who believe that this program provides personalized learning opportunities that meet the needs of students whose learning styles respond to this alternative method of education.

The manner of presentation in the Montessori classroom is accomplished in various work areas where specially designed materials are placed in a highly disciplined and structured order, inviting the inquiring mind. Students are introduced to the material when they are ready, and they work independently.

The Montessori program is housed in Montclair Elementary School and is a kindergarten through sixth grade program. Enrollment in the Montessori program is limited to 200 students.

PROCEDURES:

1. Children whose parents are seeking enrollment in Millard's Montessori program must meet regular district enrollment requirements, including those regarding age and residency. As a general rule, tuition students will not be accepted into Montessori.
2. Classroom size averages must be at least twenty students. Enrollment ranges for 1990-91 are as follows:

| | | |
|---------------|----------------|------------------|
| Kindergarten: | 1 or 2 classes | 20-50 students |
| Grades 1-6: | 5 classes | 100-150 students |
3. Selection of students for the program will be based on parents' applications. All parents who are current residents of the school district (including those with children currently enrolled in Millard's Montessori program) who are interested in having their children participate in Montessori for the 1990-91 school year must submit a completed enrollment

application form to the principal of Montclair Elementary School.

Application forms will be accepted from April 17th through May 1st, 1990. Applications submitted after May 1, 1990, will be given consideration after all other applications have been processed. Selection of children to participate in Montessori for the 1990-91 school year will be completed by June 1, 1990 for current residents.

Parents who move into the district after May 1, 1990 must submit an enrollment application within ten school days of registering their children for school. Decisions regarding these applications will be made within ten days of receipt of same.

As a general rule, no child will be accepted for enrollment in Montessori after the first ten school days of the school year. Exceptions to this rule may be made for parents who are new residents to the school district during the school year.

4. Selection of children for Montessori will be made according to the following categories, which are listed in order of preference. In addition, if demand for the program exceeds classroom size limitations, dates of receipt of applications will be used to determine participants, and, if necessary, a random selection process will be employed if selection can not be made based on dates of receipt of applications.

a. First preference: Children currently enrolled in Millard's Montessori program.

b. Second preference: Siblings of children currently enrolled in Millard's Montessori program who desire to enroll in Montessori kindergarten. Other siblings desiring enrollment in the first grade or higher grades will not be enrolled unless they have had one year of Montessori training.

c. Other children, on a first come - first served basis, however, no child will be enrolled in the first grade or higher grades without at least one complete year of Montessori education training in a certified program.

5. Special education students, with the exception of those in self-contained special education programs, are eligible for enrollment in Montessori, subject to meeting other conditions listed herein.

6. Enrollment of any student in the Montessori program is made with the condition that parents must provide student transportation to and from school.

7. Any student who is not making satisfactory progress in the Montessori program may be withdrawn from the program with the consent of the principal and parent/guardian.

Any student who is withdrawn from the program will be expected to return to his/her home school. Any requests for transfer to a school other than the home school will be handled according to the district's within-district transfer policy.

8. Children who successfully complete any grade in Montessori and, at the end of the school year, withdraw from Montessori will subsequently be enrolled in the next higher grade for the next school year. For example, a student who successfully completes Montessori kindergarten and then withdraws from Montessori will be enrolled in the first grade.

No child who is withdrawn from Montessori at the end of the school year will be allowed to repeat the grade just completed without the approval of the Montessori staff, Montclair principal and parent.
REVISED January 25, 1990

MONTESSORI APPLICATION, 1990-91

Student's name _____

Date of Birth _____

Current Grade _____ Grade for 1990-91 _____

Parents' Name
_____Address
_____City/St/Zip
_____Housing Area
_____Home School

Home Phone _____ Work Phone _____

According to the adopted guidelines, you must have previous Montessori experience in order to enroll in grades 1-6. If this rule applies to your child please note the following information. You need not supply this information if your child is currently enrolled in the Millard Public Schools Montessori Program.

Previous Montessori Experience

Child's Name _____

| Name of School | Address | School Year |
|----------------|---------|-------------|
| _____ | _____ | _____ |

Completed Applications should be returned to:

Montclair Elementary School
2405 South 138 Street
Omaha, NE 68144
691-1295

Applications will be accepted April 17 - May 1, 1990.