This article describes the general principles of the philosophy of Montessori education. The basis of Montessori education is a student-centered learning environment—one that includes provision for an inquisitive, cooperative, safe, and nurturing atmosphere for learning. Students' psychosocial needs must be addressed before their cognitive needs, so that students will enjoy learning and become life-long learners. Montessori education has developed two sets of practices with regard to teacher preparation and classroom environment that facilitate student-centered environments. Montessori teacher education programs focus on training teachers in observational skill and child development. Teachers are educated in developmental levels and in matching appropriate skills and activities to levels. Appropriate materials facilitate the development of physical, intellectual, and social independence. Characteristics of the Montessori classroom include: teachers who are educated in the Montessori method; partnership with the family; a multi-aged, multi-graded, heterogeneous grouping of students; a diverse set of Montessori materials, activities, and experiences; a schedule that allows time for problem solving; connections between knowing and creating; and a classroom atmosphere that encourages social interaction for cooperative learning, peer teaching, and emotional development. The paper concludes with comments regarding the positive aspects of multi-age grouping. (SH)
Children are our most precious resource. And if our children are to have a quality life, the world must prepare them to be competent, responsible, adaptive citizens who are live long learners and problem solvers. Children must also witness and experience respect for oneself, others, the environment, and life in order to develop a caring attitude toward all people and the planet. These are the stated aims of Montessori Education in the American Montessori Society's position paper on Key Concepts and Practices. These aims of Montessori education are not unlike the goals of the current educational reform movements. These goals, which have been articulated in various ways, have become nationally accepted; however, the task that lies ahead is no longer in the formation of goals, but rather the implementations of practices for accomplishment of these goals.

Montessori education has a proven track record of successful practices for implementing these goals. Since the beginning of the nineteenth century, Montessori schools have been serving children. As you know, Montessori's first school was a childcare center in the slums of Italy. Since that time, the Montessori method and philosophy has served children of all socio-economic levels in all parts of the world.

It is a philosophy and methodology that has stood the test of time. Montessori education does not change every few years with trends which get quickly replaced with other new ideas. It is consistent, stable, and does not need to be altered, because it works. It is dynamic by the fact that is responsive to the ever changing needs of the child.

The foundation of Montessori philosophy is respect. Respect for the student. Maria Montessori used the phrase, "follow the child, in her literature and placed the focus on the child. Dr. Montessori was not trained as an educator, but as a doctor and a scientist who had no preconceived ideas regarding what the child "should " learn. She observed the child, and learned from the child. And we have benefited from her incredible skills of observation. Thus, her environments were created by
responding to the developmental needs of children.

In Education 2000, President Bush states that one of the ways to turn education around is to focus on the student. He calls this strategy one of the revolutionary ideas of education. Even though this idea is not new to Montessorians, it is very different from the systems-centered environment of most educational institutions today.

I believe that if education could focus on this one concept--respecting the learner--then education can be turned around, and the nation's educational goals can be realized. The relevance of Montessori education to educational reforms is that we already know how to create student centered learning environments. We have been observing children, developing materials and strategies that match student needs, and preparing teachers to implement this philosophy for many years. And we are willing to share our knowledge with other educators.

This last October in New Orleans, representatives from Montessori teacher education programs from all over the world: Canada, Mexico, United States, Peru, Ireland, England, Switzerland, Spain, and Israel, joined together to agree on standards for a Montessori Accreditation Council for Teacher Education (MACTE) in order to obtain recognition as an accrediting agency. This historical event shows that Montessorians are willing and able to take the steps necessary to help educate the world's children.

I would like to explain what I mean by a student centered environment, and how I feel that it can revolutionize education.

Student centered means that we do what's best for students which may not be the easiest, most efficient, most cost effective, or quickest procedure for a school system. Yet over time, it is the most efficient and most cost effective, because students learn.

Student centered means we have programs that make children feel good about themselves: to acknowledge and celebrate everyone's uniqueness, strengths, weaknesses, and cultural diversity. We have programs in which student cooperate with each other rather than compete for who is best, and thus, lay the foundations for world peace.

Student centered means that we greet all children from where they are, instead of where we think they should be. We are able to take children from where they are and guide them to reach their fullest potential. Thus schools are prepared for children, instead of children having to be prepared for schools.

Student centered means we consider the whole child for the physical,
emotional, social, aesthetic, spiritual, and cognitive needs and interests are inseparable and equally important in the education process. Thus, we provide environments which provide for and foster holistic growth.

Student centered means that we provide inquisitive, cooperative, safe, and nurturing atmospheres for learning to occur. For we know that student's psycho-social needs must be addressed before their cognitive needs. Thus, students enjoy learning and become life long learners.

Montessori education has already developed practices that facilitate student centered environments. One set of practices is the unique preparation of teachers, and the other is the essential characteristics that are inherent in quality Montessori classrooms. Some of the important characteristics in both of these areas are listed in the AMS position paper.

The Montessori teacher is educated in these areas:

- Human growth and development.
- Observational skills in order to match students' developmental needs with materials and activities. Observational skills allow the teacher to guide students in creating their individual plan of learning.
- An open-ended array of suggested learning materials and activities which empowers teachers to design their own developmentally responsive, culturally relevant learning environment.
- Teaching strategies that support and facilitate the unique and total growth of each individual.
- Classroom leadership skills that foster a nurturing environment that is physically and psychologically supportive of learning.

The Montessori teacher education programs focus on educating teachers in observational skill and child development. Since the child changes significantly approximately every three years, our education focuses on 3 year age spans. For instance, the child from ages 3 to 6 wants to know "what". Thus, the environment provides materials and activities that give the language to the many sensorial experiences as well as naming the many objects in the environment. Along with this cognitive need, is the need to develop physical independence. In response, the environments provide many practical life exercises in helping children learn personal care, food preparation, and grace and courtesy.

In order to respond to the elementary child, the teacher needs to focus on answering the question "why" and developing intellectual independence. The
elementary materials and activities are designed to offer the history behind subjects, to develop the imagination, and to give an appreciation of the cultural subjects. To encourage intellectual independence, learning how to learn is presented as well as the particular skills that our society expects.

The early adolescent is asking the question "how much". How much can I push in order to find the limits, and how much can I make, economically, and how much can I do to serve the community. In addition, I call this time period the "age of the mouth" for early adolescents need to talk for the psycho-social growth, to eat for their physical growth, and to argue for their cognitive growth. They also seek social independence or interdependence. In response, the student centered environment at this level has programs such as class businesses, community service and internships, peer teaching, exploration classes, and Socratic discussions.

Dr. Montessori said, "My vision of the future is individuals passing from one stage of independence to a higher, by means of their own activity, through their own efforts of will, which constitutes the inner evolution of the individual."

In summary, teachers are educated in developmental levels, the appropriate materials and activities, and how to make the match with the child and the activities. The wonderful array of materials specially for each question allow the skills to be learned in the most optimal, child-centered way. This has taken many years of curriculum development, and Montessorians are willing to share their expertise and curriculum with the educational field.

The second area that focuses on child centered environments are the basic set of characteristics which are part of a Montessori classroom. These characteristics must be adopted in their entirety, instead of a list of practices to choose from. It is the combination and integration of all these practices that make a Montessori environment unique. Classrooms who do not incorporate all these features, may be fine classrooms, but should not call themselves Montessori. These characteristics, which have been referred to as the non-negotiables, as listed in the AMS position paper are as follows:

- Teachers educated in the Montessori philosophy and methodology appropriate to the age level they are teaching.
- A partnership established with the family. The family is considered an integral part of the individual's total development.
- A multi-aged, multi-graded, heterogeneous grouping of students.
- A diverse set of Montessori materials, activities, and experiences which are
designed to foster physical, intellectual, creative, and social independence.
- A schedule that allows large blocks of uninterrupted time to problem solve, to see the interdisciplinary connections of knowledge, and to create new ideas.
- A classroom atmosphere that encourages social interaction for cooperative learning, peer teaching, and emotional development.

I would like to elaborate on just one practice: multi-age grouping. The multi-aged grouping of students is one of the practices that Montessori education has always included, and I have noticed that the intent of this practice has sometimes been misinterpreted when Montessori is being implemented in new environments. Recently the National Association for the Education of Young Children (NAEYC), who focus on children birth to 9, and the National Association of Middle School (NMSA) whose focus is students ages 10 to 15 years, have both recommended multi-aged grouping for their levels. This practice increases self esteem, encourages peer and cross age teaching, leadership skills, long term relationships with peers and teachers, and allows for the diversity of abilities of students. However, in adopting Montessori practices, many teachers tell me that they already have a "3 year age span" within one grade level and do not need multi-grades. This statement is responding from the perspective of the teacher and not the child. Yes, the teacher may have a multi-aged grouping with one grade, but the student is the one who should be benefiting from the grouping, and from the point of view of the student that means being in the same environment with many of the same peers and teachers for a three year period of time in order to reap the benefits of the practice. This example illustrates the tendency of educators to see issue from the systems and adult perspective instead of the students. Thus, in the implementation of all of basic characteristics, educators must make sure that they continue to remember to respect the learner.

As Montessorians, we believe that these practices in teacher education and classroom strategies, which have been tested over time, focus on the learner and will prepare our children for their future. As Montessorians, I believe, we can and are willing to serve all children by offering our expertise and experience in "respecting" the child and student centered environments.

In closing, I would like to read letter from the learners' point of view. In response to a Newsweek article, my students wrote this letter on what the Montessori education has taught them. It reads:
Dear Editors:

We are twelve- to fourteen-year old students in a Montessori school. Our Montessori classrooms are just like the ones you recommended in your article, "How Kids Learn." In fact, even our middle school classroom allows us freedom to learn, to explore, and to create. We feel that this kind of learning environment has given us these advantages:

1. We like school and learning.
2. We feel good about ourselves.
3. We know how to work well with others.
4. We know mistakes are good—they help us learn.
5. We are independent thinkers and workers.
6. We have learned to be leaders and followers.
7. We learn from our peers as well as our teachers.
8. We get personal attention from our teachers.
9. We have relaxed breaks.
10. We can work at our own pace so that we can reach our individual potential.
11. We will be able to contribute to our world.

We highly recommend this approach to education.

Sincerely,

Middle school students
School of the Woods