

# Effecting Cosmic Education



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By Allyn Travis

Allyn Travis has a Bachelor's Degree in English from Michigan State University and a Master's Degree in Education from Loyola College of Baltimore. She also holds both 3-6 and 6-12 Diplomas from the Association Montessori Internationale (AMI) and has over thirty years of experience in Montessori teaching both children and adults. Mrs Travis is an AMI Elementary Teacher-Trainer, examiner, and school consultant. She is the full time Administrator and Director of Training at the Montessori Institute of Milwaukee, 6-12 Director of Training for AMTEF and an AMI/USA Board member.



Dr Montessori had a vision for the six to twelve year old children. Her vision was that they could be given a global vision of cosmic events. This is what we refer to as Cosmic Education for the second plane children. But her vision was of much more than just a method or system of education. Her vision was that these children could be helped to recognise their capabilities and helped to recognise their imperfections, and thereby be able to realistically evaluate themselves. This would enable these young people to use their talents constructively and to be willing to ask for help when they need it. Her vision was that this is the age during which responsibility towards society can be developed. This means responsibility towards one's self as well as towards others. Her vision revealed to her that developing integrated, committed, respecting, loving, and caring individuals was of more significance than developing linguistic scholars or budding mathematicians. This is what prepares these young people to take their places in society, what prepares them to recognise what Dr Montessori called their cosmic task and to responsibly become the 'cosmic agents of change'. This is the aid to life that Dr Montessori asked us to give to the six to twelve year olds. This is the theme that runs through Cosmic Education.

Just as the materials and the environment that Dr Montessori developed for the three to six year olds were based on her observations of children, so too was her vision for second plane children based on her observations of them. Her genius lay in the fact that she did not just dream up ideas and impose them on the children. She watched, she observed, she recognised the different psychological characteristics of each plane of development, she developed her ideas in response to the needs she observed in the children and to correspond with the psychological characteristics, she tried out her own ideas and she watched to see how they worked. She recognised that human beings in all stages of development have a natural impulse to work; they need to work to develop to their full potential and to attain normalisation. Our job during the years from six to twelve is to aid this process of normalisation, to give the aid to life that children need, and the way in which we can do this is by effecting cosmic education.

Dr Montessori recognised the fact that the universe contains all of the answers to the unending questions asked by curious second plane children. We need to give these children an understanding of the universe and the cosmos, how it came into being, how it was prepared for life, the coming of plants and animals, and the coming of human beings and their never ending story. Cosmic education does not mean just a new way of thinking about teaching geography, history, music, biology, language, or math to the children. Rather, cosmic education has to be thought of as the way in which we relate the child to the universe and to humanity so that she can understand the law and order underlying all that exists. It means that all of what we traditionally think of as the subject areas in the classroom are

interlinked and interconnected because they are all parts of the same whole. They are all part of the universe and the life that is on our Earth. All of those subject areas need to be presented to the children because they are all parts of the same whole, and, therefore, part of the continuing story of the creation of the cosmos and of life on Earth. But they are not presented as math lessons, language lessons, history lessons, biology lessons, and so on. How do we make sure that what is going on in our classrooms is cosmic education rather than teaching subject matter, while at the same time making sure the children are learning what is traditionally expected of them, for there are certain things that literate people are expected to know. And part of our job is preparing these young people to take their places out in society. That means they need to know what society is going to expect them to know, in other words what is asked for in the public school curriculum.

What are the factors that need to be in place if we want to make sure we indeed are running a Montessori class for second plane children where cosmic education is being effected, rather than just a classroom that uses Montessori materials?

1. First of all, we need to make sure the children are working – at meaningful work. Dr Montessori recognised the fact that around the age of six the child's mind changes from a mind that absorbs impressions and qualities from the environment and becomes a mind that can reason. The children are no longer interested in learning through sensorial exploration but rather are ready to learn by using their imaginations and their reasoning minds. As we look around our classes, let's look carefully at what kind of work the children are doing. Are they doing work that is challenging to them, that is causing them to have to think and reason through to





a solution? Or are they mindlessly filling in work books and ditto sheets; or working puzzle maps, which is a purely sensorial activity, appropriate for a first plane child.

Are the children mainly working in groups, because that is what the characteristics of this age group call for (remember I said that Dr Montessori observed the psychological characteristics of this age and developed cosmic education accordingly – working together in groups is one of those characteristics)? Or are most of the children working individually, as they should be in the Casa dei Bambini but not in the second plane, until they near the end of the second plane when the characteristics change?

2. Secondly, the Great Lessons need to be told every year to the children, and then told again, picking up on details not mentioned before, going into more depth with the older children. I think many elementary teachers do a good job of telling the Great Lessons each year but fewer manage to keep picking up the threads of the stories to keep the theme going throughout all the other lessons and work of the year. The key lessons that follow the Great Lessons need to be presented as part of this ongoing story, part of the same story, the same theme. One of the real tricks of cosmic education is making sure that we make the connections and the interlinking when we give the presentations to the children. We often get off to a good start in the year but then we get caught up in the basic skills that the children need to know and maybe do not know, and soon we are teaching subject matter. Perhaps if we started each day off with some of the story lessons, it would help us keep the theme of cosmic education going through each day. Perhaps if we gave more of the basic skill lessons in the afternoons, the language and the math lessons that we so often get bogged down in because those are the areas the children are going to be tested on, it would also help. So often the work going on in the 6-9 or 9-12 classes is bits and pieces, often nice bits and pieces, but the theme is missing, the interlinking is missing, the connections are not being made.

Perhaps we need to give more thought to how these lessons are connected, one to the other. It is not so difficult to connect the history to the geography to the biology. Even language is not too difficult to connect. But we often find it much harder to keep the mathematics part of cosmic education. Remember that Dr Montessori talked about order as the base of culture. Mathematics is the order and pattern that is part of nature. Different cultures expressed this order each in their own way and at their own time and these ways and times provide wonderful stories to tell the children. These stories have historical implications, geographical implications, musical implications, grammatical implications, artistic implications. This is how we keep math part of cosmic education in our classes. We have to keep reading and learning ourselves so that we have a better understanding ourselves and can pass that understanding on to the children. We need to continue to be learners, we need to

continue to be interesting, well rounded people, and we need to learn something new to bring to the children.

Very few of us have come to this work with a broad enough background. We especially need to study and read and maybe take classes about those subjects that we have not ever studied before. We do not need to be experts, in fact it is better not to be too specialised about any one area because then we are apt to over-emphasise it, but we do have the responsibility of knowing enough to interest the children and to get them started in their explorations. It is a big responsibility but one that is of the utmost importance and one that we have to be willing to assume if we really want to help children develop to their full potential.

3. Another factor to keep in mind if we really want to present cosmic education is that once interest has been generated in the children they must be allowed the freedom to follow their own interest, to choose their own follow-up work, and to work at it for as long as they are interested and until they reach an inner satisfaction. Sometimes teachers have difficulty getting the children to choose their own work based on their own interest. When this is the case, it is often due to the fact that the teacher is giving too much information in her lessons. Just as the materials are limited in the 3-6 class, the amount of information we give to the children in each lesson must be limited to just enough to spark their interest, to get them started wanting to know more. If we provide every detail there is to know, we leave nothing for them to investigate on their own. We do not want to completely satisfy their need to know. Rather we want to spark their interest and leave them wanting more. Each of our lessons has to be exciting, tantalising, intriguing, seductive. At the end of our lessons we can certainly throw out suggestions to the children of follow up work that they might want to do. 'I have some books on this table that might tell more about \_\_\_\_\_ if you would like to learn more.' Leave them wondering if there is more. "I wonder if..."

4. How can we spend so much time giving the 'cosmic' sort of lessons and still make sure that the children are getting the basics that they need? Dr Montessori left us some ideas here as well. She suggested three tools to help us make sure the children are working and covering what needs to be done and that will help build responsibility in the children. At the 6-12 level this needs to be a shared responsibility, shared between the teacher and child. If the teacher takes on total responsibility, we have short changed the child and her development at this level.

The first of these ideas is that of the work diary, journal, log. This is meant to be used by the child as a timed recording of what the child does each and every day in school. It is a recording that is done in conjunction with the work. It is not a planning journal where the child plans out what he thinks he wants to do for the day or week. Worse yet, it is not where the teacher plans out for the child what





he needs to do for the day. Or where he contracts to do five pieces of work before lunch. Each day the child starts off by recording the date at the top of the page. Then on the left hand side he records the starting time; next to that what it is he is working on. When he finishes, to the right he records the ending time. In the beginning the young children will just record something like 'grammar box' or 'plants'; as they develop ability and understanding, they should write more details about what they are doing: 'preposition grammar box, filler box B' or 'checkerboard, 2 digit multiplier, ten problems'.

When the children first come into the 6-9 class, they need several lessons on how to keep their work diaries. These lessons should start on the first day of school. They may need help with how to write the date, they can look at it and copy it if they need to. You may need to tell them what time it is if they have not yet learned to read a clock. The older children in the class will help, if they have learned to use work diaries. All lessons that the child attends need to be noted in their diaries. You may need to write the name of the lesson down on the board for the children. You or another child may need to help a child record if his writing skills still need to be developed. You need to remind the children to bring their diaries to each lesson they come to, so the lessons all get recorded in their diaries.

Sometimes you may need to help a child commit to exactly when he is going to finish a project or to exactly when he is going to do some follow up work on something like fractions, because he had a lesson on a topic that is part of the public school curriculum, and therefore he needs to make sure he knows it and you need to make sure he knows it. In cases like this, say the child agrees that he will do that at 1:00 p.m. on Wednesday. Great – he writes it in his diary and you note it on your calendar. At 1:00 p.m. Wednesday afternoon you tell him you are going to expect to see him doing this work. You do need to remember to check, that is why you write it on your calendar.

Another point that is important to remember to keep in mind regarding these work diaries is that they should not be just any tacky booklets that you come up with. They should be beautiful, bound books, so that the children are motivated to use them and to keep them beautiful. The lined, cloth-bound blank journals that are available are very nice to see. They are not cheap, but it is worth investing the money in quality and beauty because this aspect is so important to the child's development.

The second idea or the second tool of Dr Montessori's to help us and the children stay on track is that of the weekly meeting with each child. These are individual meetings, not group meetings, because it is individual responsibility we are developing, not group responsibility. We need to set aside a certain time each week, perhaps Friday afternoons, and have a short (five to ten minute) meeting with each child. To this meeting the child brings her work diary and her finished and unfinished work. This is the time during which we look at her diary to see what she has been doing for the past week. If there are time spans for which the child has not recorded anything, we discuss this with her, reminding her of why it is important not to leave anything out. Each individual human being is responsible for how he uses his time. We can use our time wisely and responsibly or we can waste it. We are teaching the children how to use their time responsibly. This is something that each of them has to learn to do for himself. We cannot do it for him. This is why the work diaries are so important. As we look in their diaries, we are reminded of the lessons they have had. If it is a public school requirement, has the child done the necessary work on it?

Regarding the finished and unfinished work that the child brings to this meeting: is this the time to be checking the child's work? No, but that's what sometimes happens, and then the teachers wonder why she cannot fit these meetings into her week. Do we really need to check the child's work? We need to have in place the mechanics for the child to check his own work, don't we? This is not the time to correct the grammar in written compositions – as we read (or skim,

depending on how long it is) a piece of their work, we may want to note for ourselves the kinds of mistakes they are making. This information then serves as our guide in planning lessons that the children need. A child writing run-on sentences: we know it is time for a lesson on style. Or if commas are not being used in the right places: we can plan a lesson on the correct use of commas.

I found these weekly meetings with the children to also be a valuable time for lesson planning for the following week. Depending on what work had been done by the child, what interests she was showing, I could judge what lessons she might be ready for next. Also, by what areas she had not done any work in: hmm, maybe it is time for some new presentations there to spark some interest. I always asked the child if there were any lessons that she was anxious to have so I could include those in my plans.

As the child becomes more responsible, and you know who the workers in the class are, the ones who are self-motivated, the ones you don't have to worry about, these meetings can become less frequent. Once every two weeks is often enough to touch base with these children. With some, as they mature and show responsibility, the time lapse between meetings may become even longer. If we keep this in mind, the idea of these meetings will not seem so overwhelming. Of course, you continue to meet weekly (or more often!) with certain children. Teachers often say they do not have time to meet so often with the children, they have trouble fitting in the meetings, and so on. I know, I went through that myself. What I found helped a great deal was the children knowing what my expectations were. If they knew when I was going to have meetings and what they were to do during that time (something they could do independently, because if you are constantly being interrupted you won't finish), it helped. I also would let them know who I wanted to meet with (perhaps a list posted on the wall or chalkboard). I then taught them to watch to see when I was meeting with the person before them on the list. This was their cue to get ready and when that person left the chair, they were to be in it! I am sure other teachers have other ideas they could share about how they have worked this out in their classrooms; these are just some suggestions.

The third idea of Dr Montessori's, the third tool we have to use to help us and the children make sure they are covering what they need to, is the use of the public school curriculum. It is our responsibility as elementary teachers to find out what the requirements of the public schools in our area are and to make these requirements known to the children. Often times, that means translating traditional educational wording into Montessori terminology. This curriculum should then be posted on the wall in the classroom or in some other way made available and usable for the children. These are the requirements of what the child needs to know by nine, and then again by twelve, not by the end of each year, not by the end of each grade level. If we are really allowing the children to follow their interests and to



work on a topic until they are satisfied, they may spend a couple of months working on one in-depth project and we have to allow the three years to cover all the other work in all the other subject areas. Otherwise we cannot really allow them this freedom.

During our weekly meetings we periodically may need to refer the children to these requirements. This would be when I would remind a child of, for example, a fraction lesson she had had and of the necessary follow-up work needed for that requirement. If the child has been working on a massive project and has not done any math for a month, we may want to ask when she plans on picking up on that work. Our job is to make sure the child knows what she needs to cover and to help her plan when she might cover it, if she needs that kind of help. But if the child is going to be able to share that responsibility, she has to be able to know for herself what she is responsible for, and the only way she can know that is to have it available to her.

5. There is something else that has to be in place in our class if we are really offering cosmic education, another element that makes the difference between running a Montessori elementary class and running a traditional class with Montessori materials. We must have in place what has been referred to as "Going Out". As I said earlier, the information we give in our lessons has to be limited, there has to be more for the child to find out after we have sparked her interest. We then must take care that we have prepared our environments in such a way that at least some of the answers the children are looking for cannot be found in our classroom. Perhaps the children need to go to the public library to look up the information, or to a public museum, or the botanical gardens, or....I hope you see the implications here for school libraries?

These expeditions out of the classroom need to be generated by the child's interest, they need to stem from the child's work in the classroom, and they need to be planned by the children. This means that what we traditionally know of as field trips do not meet the criteria of "Going Out". There are times when there is something to be seen that is of such significance or an opportunity that is available for only a brief amount of time that the teacher initiates the plans, perhaps taking the whole class. This is fine. But it is not the essence of "Going Out".

Just as most of the work done by the children in the classroom should be in small groups, so should most of the "Going Out" be in small groups. In most countries today, the current state of our society dictates that in most cases these small groups need to be accompanied by an adult for safety. This is a very valuable use for the assistant in your class, if you have an assistant, or for other extra adults around school; and for parents, grandparents, and so on. These adults need to be trained to allow the children to be independent, to find for themselves what they are after, to spend as long as they want at a certain place, and so on.

Do all of the children in the class 'go out'? Not necessarily. The children have to exhibit responsible behavior in the classroom before you allow them to plan a trip out. Part of that responsible behavior is keeping up their work diaries and doing follow up work they are required to do according to the public school curriculum. How they care for the environment and their behaviour are also indications of their readiness. "Going Out" is something that some of the children in a 6-9 class do some of the time. It is something that should be going on a lot of the time in a 9-12 class by most of the children.

This is where community service fits in. The older elementary children, because they have had experience going out into their communities and into society, can be helped to see how they can be part of that society and how they can give back to that society. This community service can range from little things like grocery shopping for someone who is ill or housebound, reading to a blind person, helping to keep a park or roadway litter free, to bigger projects like

helping raise money to build a new neighborhood playground or whatever. The ideas are limitless. One wonderful outgrowth of this kind of community service happened at a school in Maryland in the US. Over eight years ago now, the children had become aware of the plight of the children in Somalia and had initiated a fundraising project to raise money to help build a school in one of the villages in Somalia. This project has continued over the years, carried on by the succeeding groups of children. A school has been built, a teacher has been trained, and supplies have been sent to the school. This is the kind of caring about and taking action for our fellow human beings that can make a difference in the world.

I think of "Going Out" as a point of arrival. It is something the children have to be gotten ready for. It is not something that I expect to see all the six and seven and eight year olds doing. "Going Out" involves the children having the idea to go out to learn something, to see something first hand that they cannot see in the classroom. It involves the children themselves planning where and when they are going, who is going to accompany them if that is necessary, which may mean contacting that individual and making the arrangements. It means the children determining what they are going out for and, if they are going to bring some information back to class with them, how they are going to do that. Do they need to take along notebooks or a sketch pad? Are they going to take public transportation? If so, how are they going to pay for it? If they are bringing money from home, what is going to happen if one child forgets his fee?

Are you beginning to see how all these elements are interconnected and must go hand in hand if we are to effect cosmic education? Dr Montessori left us with a plan for the second plane children that we need to put into place. It is not enough to just use parts of the plan, of the vision. If we really want cosmic education to work and to be effective and to produce responsible, integrated, normalised human beings, we have to put each every one of these elements into practice in our classrooms. We will then be giving each child the opportunity to develop to his or her full potential, for that is what Montessori education is really all about.

I would like to end with a quote by Dr. Montessori from the introduction to the book *To Educate the Human Potential*: "Not in the service of any political or social creed should the teacher work, but in the service of the complete human being, able to exercise his freedom, a self-disciplined will and judgment unperverted by prejudice and undistorted by fear. The average boy or girl of twelve years who has been educated 'till then at one of our schools knows at least as much as the finished High School product of several years' seniority, and the achievement has been at no cost of pain or distortion to body or mind. Rather are our pupils equipped in their whole being for the adventure of life, accustomed to the free exercise of will and judgement, illuminated by imagination and enthusiasm. Only such pupils can exercise rightly the duties of citizens in a civilised commonwealth."

This is how we, by effecting Cosmic Education, can prepare the child and the family for the future.

