

The Reggio Approach in Young Children Classroom

This paper is a review of the history and development of the Reggio Approach to education pedagogy. The purpose of this study is to present the Reggio Approach in the Early Childhood classroom and its modification in Thailand. The resources for this study included, articles, catalogue of the exhibition, slide pictures, video tape, classroom observations, interview and books.

Reggio Emilia is a town in northern Italy and became the name of a world renowned approach in Early Childhood Education. The history of Reggio approach has began in 1945. Loris Malaguzzi, the founder of this approach stated that it started six days after the end of the Second World war (Malaguzzi, 1994). He heard that in a small village called Villa Cella, a few miles from the town of Reggio Emilia, people decided to build and run a school for young children. Malaguzzi rush there on his bike. At that time, parts the city were destroyed and he saw women trying to use the ruins to build the school. They reused the brick and decided to sell an abandoned war tank, a few trucks, and some horses left behind by the retreating Germans. This provided the money for a school construction fund. Malaguzzi introduced himself and he was welcomed for his teacher status. At that time, he was teaching in a middle school. The villagers explained to Malaguzzi that they would build the school on their own, working at night and on Sundays. The land had been donated by a farmer; the bricks and beams would be salvaged from the bombed houses; the sand would come from the river; and the villagers would volunteer their labor.

Within eight months, the school was completed as well as the relationship among Malaguzzi and the people in Villa Cella had been developed. Similar situations also occurred on the outskirts and in the poorest sections of town. Started by women with the help of the National Liberation Committee (CLN), seven more schools were added in the poor areas surrounding the city to the "school of the tank" at Villa Cella. It was difficult for parents to run the schools in the devastated town with mourning and poverty. Some schools were unable to stand upright, but most would survive for almost another 20 years because of the solidarity and sacrifices of the people involved in this mission. Through participation in this event, Malaguzzi gradually became committed to work with young children. After teaching in a middle school for seven years, he decided to make Early Childhood Education his fulltime occupation.

The Transformation of Educational Culture for Young Children in Reggio Emilia

Malaguzzi (1994) expressed that his work with the children had been rewarding, but he was not satisfied with the state-run schools. He criticized the curriculum, as it did not account for student individual differences. He condemned its opportunistic and obsequious attention towards authority, its

self-serving cleverness, and its attempts to push pre-packaged knowledge. He went to Rome to study psychology at the National Center for Research (CNR), and started to work for the municipality at a town sponsored mental health center for children with difficulties in school. He also spent the second half of each day working in small, parent run schools. Malaguzzi praised the teachers in these small schools for their ultimate resourcefulness, boundless energy, and high motivation. He joined with these teachers, encouraging them to learn along with their students. This perception of the teacher as learner marked a major change in the educational culture.

Soon, they realized that many children were undernourished and in poor health. The children also were not familiar with the standard Italian language due to speaking a local dialect in their families for many generations. Malaguzzi and his colleagues asked for help from the parents. The implementation of parental involvement was the second instance of change in the culture of educating young children. The experiences that were gained from these two changes were essential to their collective wisdom, preparing the way for the first municipal school in 1963.

In 1963, there was a political movement in Italian society. Citizens asked the government for social services and school for their children. They wanted schools of a new kind: of better quality, with secure financial support, and not discriminatory. This was the challenge for Malaguzzi and his colleagues: to carry out this new kind of school and to be accepted by the public. In 1967, all the parent-run schools came under the administration of the municipality of Reggio Emilia. Gandini (1993) reported that:

The city now runs 20 schools for children ages three to six years, as well as 13 infant/toddler centers for children four months to three years of age. Children from all socioeconomic and educational backgrounds attend the programs: 47% and 35% of the two age groups are served, respectively. In Italy about 90% of children three to six years old attend some kind of school, whether municipal, national, or private; in Reggio Emilia 95% of preschool-age children are enrolled in school. Children with disabilities are given first priority for enrollment in the schools (Gandini, 1993, p.4).

Searching for the appropriate approaches to setting up the classroom activities for young children, Malaguzzi had conducted several seminars, starting in 1963: the topic was on the concept of play in the classroom. In 1968, they sponsored a symposium on the relationship among psychiatry, psychology, and education. Another meeting was held in the same year among the biologists, neurologists, psychologists, and experts in education to discuss children's graphic expression. In 1971, they organized a national meeting for teachers; They expected 200 participants, but 900 teachers showed. At this time, Malaguzzi published his first work on the subject of early education: Experiences for a New school for Young Children. A few months later, his

second book was published: Community-based Management in the Preprimary School. These two books contained everything that Malaguzzi and his colleagues had compiled with the teachers of Reggio Emilia and Modena (where Malaguzzi was a consultant), regarding their experiences and ideas.

The Growing Philosophy

The philosophy of the Reggio Approach developed from the interaction of the social context and the extraction from theoretical principles. Malaguzzi told Gandini that:

When somebody asked us how we got started, where we came from, what the sources of our inspiration are, and so on, we cannot help but recite a long list of names. And when we tell about our humble and at the same time extraordinary origins, and we try to explain that from those origins we have extracted theoretical principles that still support our work, we notice much interest and not a little incredulity. It is curious (but not unjustified) how resilient is the belief that educational ideas and practices can derive only from official models or established theories.

We must, however, state right away that we also emerged out of a complex cultural background. We are immersed in history, surrounded by doctrines, politics, economic forces, scientific change, and human dramas; there is always in progress a difficult negotiation for survival. For this reason we have had to struggle and occasionally correct and modify our direction, but so far destiny has spared us from shameful compromise or betrayal. It is important for pedagogy not to be the prisoner of too much certainty, but instead to be aware of both the relatively of its powers and the difficulties of translating its ideals into practice. Piaget has already warned us that the errors and rills of pedagogy come from a lack of balance between scientific data and social application (Malaguzzi, 1994, pp.51-52).

Malaguzzi and his colleagues had the opportunity to explore the works of John Dewey, Henri Wallon, Edward Chaparede, Ovide Decroly, Anton Makarenko, Lev Vygotsky, Erik Erikson, and Urie Bronfenbrenner. They also read The New Education by Pierre Bovet and Adolfe Ferriere and studied the teaching techniques of Celestine Freinet in France, the progressive educational experiment of the Dalton School in New York, and the research of Piaget and colleagues in Geneva. These guided their choices and their determination to continue giving impetus to the flow of their experiences. Also strengthening their belief in active education was their awareness of the pluralism of the families, children, and teachers becoming even more involved in their joint project.

In the 1970s, the Reggio Emilia educators studied a second wave of scholars, including psychologists Wilfred Carr, David Shaffer, Kenneth Kaye, Jerome Kagan, Howard Gardner, philosopher David Hawkins, and theoreticians

Serge Moscovici, Charles Morris, Gregory Bateson, Heinz Von Foerster, and Francisco Varela, plus those who work in the field of dynamic neuroscience. These sources provided topics for discussion, reasons to find connections, discorances with cultural changes, occasions for debating, and stimuli to confirm and expand upon practices and values. They also gained a sense of the versatility of theory and research.

Reggio's experiences with children 3-6 years of age led to the conclusion that the work was not just custodial care, but that young children's education requires professional expertise, strategies of care, and environments appropriate and unique to their developmental level. This conviction led the educators of Reggio Emilia to extend their work to include the children 4 months to 3 years of age. Malaguzzi (1994) admitted that they had many fears, and reasonable ones. The fears, however, help them by forcing them to work cautiously with the very young teachers and with the parents themselves. "Parents and teacher learned to handle with great care the children's transition from a focused attachment on parents and home to a shared attachment which included the adults and environment of the infant-toddle center" (p. 54.). One of the rationale behind their philosophy is the assertion of Urie Bronfenbrenner and Ellen Hock: that the quality of the relationship between adult and child is more important than the quantity of time they have together. After decades of solidarity and working through many obstacles, the Reggio Emilia educators had finally set down the principles for their schools.

The Basic Principles of The Reggio Emilia Approach

An Amiable School:

The educators in Reggio Emilia believe that school for young children is an integral living organism, a place of shared lives and relationships among many adults and very many children. School is a place of construction in motion, continuously adjusting itself. All the lives in school need to adjust themselves harmoniously in order to reach the objectives for all concerned. The living system of schooling shall expand toward the world of the family. The objective that Reggio Emilia educators always pursue is to create an amiable environment, where children, families, and teachers feel at ease. Gandini (1993) defines an amiable environment in this way:

The layout of the physical space in the schools encourages encounters, communication, and relationships. The arrangement of structures, objects, and activities encourages choices, problem solving, and discoveries in the process of learning. In preparing the space, teachers offer the possibility for children to be with the teachers and many of the other children, or with just a few of the children, or even alone. Teachers are aware, however, that children also learn from their peers, especially when they can interact in small groups.(p.6)

Malaguzzi stated that they had put together a mechanism combining places, roles, and functions that have their own timing, but that can be interchanged with one another in order to generate ideas and actions. All this works within a network of cooperation and interactions that produces for the adults, but above all for the children, a feeling of belonging in a world that is alive, welcoming, and authentic. (Malaguzzi, 1994, p. 58) The educators in Reggio Emilia have built an amiable school environment, encouraging both physical and emotional touching. They organized and managed the schools where children, teachers, and families feel at home.

Education Based on Interrelationships:

The focus of education in Reggio Emilia is not only on the child-centered environment of the school. Teachers and families are also considered central to the education of children. A network of communication and meeting exists among “the three central protagonists” (children, teachers, and families), as Malaguzzi named them. Educators meet with families to discuss curriculum. They invite parents to cooperate in organizing activities, setting up the space, and preparing the welcoming of new children. They provide each child with the telephone numbers and addresses of all the other children and their teachers. They encouraged visits, including snacks among children at their homes and visiting parents’ workplaces. They organize excursions with parents. They work with parents in constructing furnishings and toys. The educators discuss with parents about their projects and their research, and they meet to organize dinners and celebrations in the school. All of these activities form the interrelationship among the schools, families, and children, and are part their philosophy and basic values of setting the appropriate education for young children.

Malaguzzi (1994) believed that this interrelationship among the three central protagonists related to the learning of young children. The practices extending from this interrelationship form a basis for interactive and constructive aspects of the approach, an intensity of relationships, a spirit of cooperation, and individual and collective effort in doing research. They awakened all three parties to realize the power of exchanging ideas, communicating with other, thinking and expressing their thought. These two-way direction of interaction between children and adults provides opportunities for young children to practice their communication skills which are the crucial to learning.

Images of childhood

The educators in Reggio Emilia believe that all children have innate strengths and capabilities linked with an inexhaustible need for expression and realization. “All children have preparedness, potential, curiosity, and interest in

constructing their learning, in engaging in social interaction, and in negotiating with everything the environment brings to them” (Gandini, 1993, p. 5).

Malaguzzi expressed his understanding of the child in his poem “No way. The hundred is there.” He narrated that:

The child is made of one hundred. The child has a hundred languages, a hundred hands, a hundred thoughts, a hundred ways of thinking, of playing, of speaking. A hundred always a hundred, ways of listening, of marveling of loving, a hundred joys for singing and understanding, a hundred worlds to discover, a hundred worlds to invent, a hundred worlds to dream. The child has a hundred languages (and a hundred hundred hundred more) , but they steal ninety-nine. The school and the culture separate the head from the body. They tell the child: to think without hands, to do without ears, to listen and not to speak, to understand without joy, to love and to marvel only at Easter and Christmas. They tell the child: to discover the world already there and of the hundred they steal ninety-nine. They tell the child: that work and play, reality and fantasy, science and imagination, sky and earth, reason and dream are things that do not belong together. And thus they tell the child that the hundred is not there. The child says: No way. The hundred is there (Malaguzzi, 1994, p.vi; translated by Gandini).

Malaguzzi (1994) summarized his idea about the fluid interrelationship among the involved components in education: “Nature provides time for mistakes to be corrected (by both children and adults), for prejudices to be overcome, and for children to catch their breath and restore their image of themselves, peers, parents, teachers, and the world. If today we find ourselves in an era in which the time and rhythm of machines and profits dominate those of human beings, then we want to know where psychology, education, and culture stand.” (p. 75).

Teachers in the Reggio schools

What is the role of the teacher under whose guidance this work took place? Lilian Katz described the role of teachers in the Reggio Emilia school very succinctly:

Teachers take an active role in encouraging and helping children explore the possibilities of a wide variety of materials and media. But most important, teachers do not underestimate children’s capacities for sustained effort in achieving understanding of what they are exploring; nor do they underestimate children’s abilities to capture and depict these understandings through a variety of art forms. (Katz, 1990,p. 11)

George Forman (1990) also illustrated the Reggio Emilia teachers’ role in “Lessons from Reggio Emilia”:

They (the teachers) seem to have mastered the balance between direct instruction and self-regulated learning. They are not afraid to give the child direct tutelage on an expressive technique, such as painting or sculpting. But tutelage is used in a manner, that I do not often see in the United States, as a cognitive tool for reflective thinking about the physical and social world. The self regulation comes in the children's use of that technique. Children may be taught how to use the brush or the sculptor's knife, but they then invent in their own renderings. For example, children discuss how the eyes sometimes look sleepy, angry, even cautious. Then it remains to the child to invent some metaphorical rendering in clay of "an angry eye" or "the eye watching television and is bored." These renderings are always made public, discussed by others, and even improved through several children working together. This communication context of art is a mainstay of their social constructivism. The objective is not to learn how to make good art, but to use art as a medium for discussion about some concept, such as boredom, caution, or anger. (Forman, 1990, p.2)

Learning Through Project Work

Children in Reggio Emilia demonstrated their learning abilities, convey their hundred languages in learning, and expressing their understanding through their hundred languages. They often do this through an in-dept project. The following is a description of "The Poppy Field" project, discussed by George Forman in a PBS special on creativity, aired in April 1992:

The children are first asked to draw what they know of poppies. This is done during the spring when the fields are vibrant with those large-blossomed, skinny-stemmed flowers. The drawings are fine, well-composed spatially, certainly symmetrical, but most often quite without life or dynamism. This first step, drawing before the field trip, serves as a platform for children to think about "poppy-ness." What are poppies, what do they look like, what do they do when the wind blows, does the rain beat them beyond repair, do they learn on each other or stand alone, does the poppy have a good place for a bird to land, do they grow in clumps or all behind a cloud, and so on and so on.

As children look at one another's drawings they discuss what each drawing communicates. They continue with the verbal outpouring for several days, perhaps again drawing the poppies. Then the appointed day arrives and they rush to the poppy fields. Their minds are laden with questions to answered, questions that arose during the discussion of their drawings. Later when the children stride into the midst of the thick growth of poppies, they work with joy and intensity on their quest. "Poppies are tall, I almost disappeared in the middle of them." "They are

delicate.” “They’re lighter than a feather.” If there’s wind, they fly away in a flash.” “If you take the buds and you open them, they stay all rolled up: you open them very slowly and they hide from you.” The initial drawings, verbal outpourings, and comparisons of drawings have prepared these children to reflect more deeply on the actual field experience.

Then they return to the classroom to discuss and draw again. Now the drawings take on a richness, depth, and dynamism that was missing in their first drawings. The pictures show the weight of the large blossom on the skinny, bent stem. The pictures show the density of blossoms growing together, some in front, some in the back, instead of all in a neat row as in the first drawings. The pictures show the buds lower than the blossoms, as if the children realize that height is an index to sequence. How do we characterize what has happened during the course of these experiences? We could say that the children drew the poppies better the second time because they had more information about their subject matter. But this begs the questions about how the children assimilated this information. Take a random group of children into a poppy field, tell them to touch, to smell, and look closely at the poppies, return to class, and ask them to draw what they saw. Chances are you will still get the stylized drawings the Reggio teachers found in the first set of drawings. Touching, feeling, and smelling (sometimes called multisensory education) is not the same as asking, experimenting, and speculating. The latter are the elements of reflective abstraction, and the mental endeavor to put things into coherent relations.

This poppy project is just one of hundreds that the teachers in Reggio Emilia have documented. Many American educators have seen these photographic and text documentation in an exhibit called the Hundred Languages of Children that has been touring the United States since 1988 from San Francisco to Fort Worth, Texas; Syracuse, New York; Amherst and Boston Massachusetts; White Plains, New York; Washington, D.C.; Dayton, Ohio; Detroit; and St. Louis. A major work that describes this approach, called the multisymbolic approach, is imminent (Gandini, Edwards, & Forman, in press). Other projects include shadows, the rain cycle, under the city, the importance of looking at ourselves, the winery, dinosaurs, caves, a single plot of earth, how to run the long jump, how to tell the carpenter to build a table exactly like the one we broke, the city when it rains, reflections, and others. (Forman, 1993, pp.144-145)

Instead of using pre-planned curricula, teacher in the Reggio schools alert themselves to observe the need of young children to learn. Then, the teachers take the role to supporting the children to learn according to each individual potential and interest. The **curriculum emerges** through the project work. The contents come from the children’s own curiosity in learning, and from the

teacher's observation regarding the children's interests and instances of cognitive discord. The children learn from their hands-on experience through their five senses. They learn from each other with the peer group, and from the adults around them. The crucial point of this learning process is they are encouraged to digest and express their knowledge and experiences through the artifacts that they create from their natural abilities and languages under the guidance of their teachers and their atelierista (a teacher who is trained in the visual arts). When exploring a project, the key is not what the teacher knows or understands about the subject, but how to 'help' the children explore their ideas themselves. The teacher asks questions not so the children can explain their ideas to the "ignorant teacher", but so the children can explore for themselves. It is not necessary for the children to have the "right" answer or information, but to help them find a solution that works for them. Therefore, it isn't important for the children to totally grasp an initial abstract concept, because a concrete path will emerge based on what the children do know, or what they believe to be true.

The comprehension gained by young children in Reggio is very meaningful for them. Their intrinsic motivations are fulfilled. They learn with joy, excitement and happiness. And most importantly, they learn in-depth information that they want to learn

Documentation

An important component of Reggio project-work is the use of documentation. They record not only the progress of the project, but also to act as a means of the review and revisiting for the children, which can lead to a modification or extension of their initial ideas. Documenting the progress of the project fixes the information in everyone's memory, and helps outline the various stages the children went through. The children realize that they can create ideas that are valued and that their ideas can become reality. When revisiting the stages of the project, the children can re-evaluate and self-correct, exchange and abandon ideas. Documentation provides a sharable testimony to the learning process of the children. Documentation also shows the teachers how to facilitate. By documenting and reviewing the documentation in its various forms, the teachers can decide when to intervene, and what areas or ideas to explore later.

Gandini also asserted that " This documentation has several functions: to make parents aware of their children's experience and maintain parental involvement; to allow teachers to understand children better and to evaluate the teachers' own work, thus promoting their professional growth; to facilitate communication and exchange of ideas among educators; to make children aware that their effort is valued; and to create an archive that traces the history of the school and of the pleasure and process of learning by many children and their teachers" (Gandini, 1993, p. 8). The documentation can be the testimony to inform the public of the contents of the schools and the children's work (Vecchi,

1994,p. 121). It demonstrates how children talk, discuss, solve problem, reflect on their own work. It also display how children construct their intellectual through their project works

The Modification of Reggio Approach in Thailand

Mrs. Jackie Alexander is the principal of The City School, Anubaan Na Daroon, and The Purple Elephant. She first came to Bangkok as a lecturer for teacher training, later she decided to start a in Bangkok. Her first school was The City School and has served the international young children for 15 years. She then started The Country School also for the international young children, Anubaan Na Daroon for Thai young children, and The Purple Elephant for toddlers. Ten years ago, she read about the Reggio school . She was interested in the Reggio Approach from her reading. At that time she flew to Reggio Emilia to attend the annual conference. In the first few years, there were not many participants in the meetings. She founed that many well known young children educators such as Lilian Katz, Rebecca New, George Forman, Sylvia Chard, and etc. were already there to study about the Reggio schools. Mrs. Alexander was so fascinated with the learning process of young children in Reggio, and it challenged her to modify this approach for her schools. She modified the Reggio Approach by implement the learning through project in her school. The first one was the ‘Ballet’ project that she worked out her young students.

Mrs. Alexander has joined the conference in Reggio Emilia every year. She also presented her work in the schools when she joined the June, 1999 conference on Italy. She also supported her colleagues for the training program in Reggio Emilia. Now, the children and the teachers in her school have conducted learning process through many project works. Because of the different context among each school of hers, the application of the Reggio Emilia in her schools are difference. She still wants to do more in her school. Mrs. Alexander said that all schools should always evolve.

Sarah Lawless is a teacher in The City School. She visited the Reggio schools few years ago. Now she is very energetic and active in project management for the schools. In 1997/1998 she has guided and documented a class of 4-5 years old children to explore a project about dinosaurs. Another project she worked with her young students is the ‘Boat’ project The following is an example of the documentation on ‘Dinosaur’ project:

1. children were asked to discuss their initial thoughts about dinosaurs (what is a dinosaur? What does it look like?)
2. drew initial ideas of dinosaurs, without looking at pictures. These were generally rudimentary, “stick” drawings
3. asked to find information at home: brought in several printouts from internet, news articles, etc. (parental involvement)

4. first realized that dinosaurs don't exist anymore:
 - “When did dinosaurs live?”
 - When some yucky smell come...Stinked!
 - > various theories about what happened to the dinosaurs, with the greatest emphasis on volcanoes (remembering the movie “Land Before Time”)
5. discussed dinosaur's environment:
 - “Where did they live?”
 - In the valley.
 - >further discussion of volcanoes: made science experiment, recorded it with paint and coloured paper
6. early on , began to discuss SIZE of dinosaurs (using some books, pictures which compare dinosaur size to people)
7. “How do we know there were dinosaurs, if we can't see them?” cause their bones are there.
 - >read “A Night in the Dinosaur Graveyard” = introduction to the word “fossil”
 - >children made their own “fossil” in art class (with leaves and plaster), and in regular class (with sand and pipe-cleaners--to show how bones are arranged in shape of dinosaur)
8. “Who finds fossils?” --> introduce to “paleontologist”
9. dinosaur dig-->further discussion of size: “How big will the bones be?” -- gave sense of dimension
 - >making “paleontologist hats”= first attempt at measuring, presented problem to be solved --in math centre, began exploring non-standard measurement, not directly connected to dinosaurs (how can we find out how long your legs are?, etc.)
 - >children chose various objects in the classroom (string, tape, paper clips, pencils, etc.) to measure--began to see that numbers were needed
10. “What do paleontologists do with the bones after they find them?”
 - Make a dinosaur.
11. “What does dinosaur skin look like?”
 - >a mother brought in a news clipping about paleontologists finding fossilized dinosaur skin
 - “What colour?”
 - “They don't know. They just know it's bumpy.”
 - >more imaginative possibilities, because “nobody really knows what it looked like.”
 - >introduce to camouflage (side project refer to camouflage of other animals)
12. with dinosaur skull: children began to spontaneously attach skin to it, using scraps of paper, tape, coloured markers (and mending the

broken horns)

13. decided they needed to look for the whole body--at recess, spent time digging, trying to find it, but of course, unsuccessful
 - >harkening back to the concept of paleontologists “making” the dinosaur, and because they couldn’t find the body, the teacher asked if there was another way they could make a life-like dinosaur
14. “where will we put the dinosaur?”
 - if we put it inside, it will break the whole school!
 - >Jackie finally designated upstairs hallway
15. “How big will the dinosaur be? We need to tell the carpenter how big, so he can help us build it.”
 - >began trying to measure in the classroom, using the skull, tape, and string--arbitrary use of numbers, counting with finger along the string (“What are you counting?”--centas.)
 - **During this phase, there was one child most passionately and persistently involved, with others adding ideas periodically.
16. One child introduced the word “measurer”, but unsure what that meant--still felt the need to use string, tape, paper-clips, pencils, etc.
17. went to the designated space to attempt measurement and to determine placement of the dinosaur
 - >problem: can’t block the hallways, stairs, etc.
18. meanwhile, attempting to decide which dinosaur to make (t-rex=too tall; long-neck=too long, etc.) using votes, graphing with all 4 classes
19. one child brought a “measurer” to class, but decided it was too short for the dinosaur
 - 1) children made their own “measurers” with scraps of paper of different lengths, writing the numbers
 - 2) tried to measure a picture of triceratops, all with different results-- “Why are they all different?”
 - because the measurers are not the same size.
 - 3) teacher gave the children strips of paper all the same length and the children wrote numbers on them
 - 4) children measured again, but still different results
“Why are they still all different?”
 - because the numbers are not all the same size.
 - 5) teacher typed numbers on computer, all the same size; children glued them to same-size strips of paper
 - 6) measured again, but still with different results
“Why are they still different?”
 - Because the spaces between the numbers are not all the same.
“Do we have anything in the classroom that has all the numbers and spaces the same size?”
 - No.

7) teacher demonstrates measuring with a ruler:

“Do you think it will be the same or different if I measure with this second ruler?”

-Different.

-->shows that it's still the same, and does the same with a metre stick

8) referring back to “centas”, teacher introduces “centimetres” and “metres”

**Now the children know not only HOW to measure, but also WHY we measure that way.

20. Jackie laid out specific area for the dinosaur, using masking tape on the floor in the hallway.

21. looked at books to tell us measurements of various dinosaurs

22. to measure the designated space, used string measured and cut to the top 3 favourite dinosaur lengths (T-Rex, Stegosaurus & Long-Neck)

-->all the dinosaurs were too long, so decided to fold the string on half to make a “baby dinosaur” (scale model)

-->stegosaurus fit perfectly, therefore did the same with the height

**Now they have the size and type of dinosaur

23. began designing in art class, looking closely at pictures in books to notice dimensions and arrangement of features, etc.

24. each child drew their version on overhead plastic

--> slide show with all classes, to critique each others' designs and agree on certain features

-->combined to form cohesive design

25. final vote refer to colour (green for body, yellow for spikes), keeping camouflage in mind

26. in math centre, studied circular patterns and symmetrical

27. in art class, began making panels for skin, using recycled materials (pop can tabs, popsicle sticks, bottle caps, etc.), spray-painted green if necessary

28. school carpenter built the structure, using the final design and measurements

-->children insisted he use recycle wood

-->covered it with chicken wire, and attached the panels and spikes

**Throughout the project, different concepts refer to alphabet, dinosaur poems, dino-related cooking and math activities

Conclusion

The history of the Reggio Emilia Approach illustrates the story of a group of people who started with nothing worked hard to build a revolutionary school.

They consistently worked with their soul, their spirit and their hopes for a better education for their children. The educators in Reggio Emilia demonstrated their competencies in pulling all kinds of theories into practices. They also displayed the comprehensive evidence that teaching and learning is the reciprocal communication. Contents in learning should come from the children's interests. The example of teachers in Reggio Emilia should be an inspiration for all levels of teachers for their energy, their curiosity in researching for the better education. Teachers should develop critical thinking in their works. Reflection on their own teaching is also crucial for teachers' growth. Education is the most important component in maintaining our human society. The appropriate practice to create better quality of education should be applied to all levels. But particular attention should be given to young children who are the foundation of our future. The Reggio Approach is an education pedagogy that nurtures the children's natural needs and curiosity.

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