that fire trucks would make a good topic for a project. At meeting time, they talk with the children about fire trucks. Children have a lot to say about how big they are, their color and shininess, the sirens, how fast they go, and about going to fires.

At the next meeting time, they discuss fire trucks again and begin to make a web together of all the things children know about fire trucks: fire trucks are red, some have ladders, they carry a lot of equipment, firefighters wash the trucks and keep them clean. Then Sheila and Joan talk with the children about what questions they have or what they wonder about fire trucks. They make a list of questions, for example: Is it scary to ride on a fire truck? What do all of the buttons and controls do? Where is the siren?

**Typical learning activities:** Sheila and Joan ask the children if they would like to visit the fire station and the children are very excited about this idea. They begin to plan for the visit by reviewing their list of questions. Sheila and Joan want children to take an active part in asking questions and gathering information. In the classroom, children practice asking questions before they head out to the fire station. Sheila and Joan tell the children that they are real investigators and will bring back real information. At the fire station, children ask their questions and draw pictures of the fire truck to help them remember.

**Image of the child:** Sheila and Joan support an image of the child as active and motivated to seek answers and increase their understanding.

**Further explorations:** Sheila and Joan notice that the children often pretend to be firefighters driving a fire truck. They ask the children if they would like to make a fire truck for the classroom. This is an activity that will enable many children to participate in various ways, yet create a group product together. The children are excited about this idea.

Sheila and Joan brainstorm with children about what items they will need for this part of the project. A parent donates a couple of large cardboard boxes and other materials are gathered that might be used for lights, buttons, hoses, and other parts. Over the next few days, the children make decisions about how to construct the fire truck. They paint the outside, choose the right size lights, decide how many can ride inside at a time, and make sure as many details are included as possible.

Sheila and Joan suggest that children share what they have learned about fire trucks with their families. Each child is asked to tell something she or he knows about fire trucks, for example: Fire trucks are bright yellow so people can easily see them. Sheila and Joan write down these comments in a book. Some children write one or two words that they know, such as siren or hose, and some children draw pictures of a fire truck for the book. The book becomes the culminating product of the fire truck project.

**Assessment:** Sheila and Joan facilitated a project that enabled children to research information about fire trucks. The children actively participated and took initiative in making decisions throughout the course of the project. However, the focus of the project remained bounded by the concrete and tangible subject of the fire truck. The children learned new vocabulary and made decisions together about building the cardboard fire truck. The teachers made numerous connections to learning guidelines and standards.

**Reggio Approach**

David and Mariah co-teach a class of 4- and 5-year-olds in a preschool that integrates principles of the *Reggio Emilia* approach. They notice that the small cars and trucks in the classroom are very popular with children. David and Mariah take pictures of how children use the cars and trucks. They write down some of the conversations and arguments between the children that arise because everyone wants to play with them at the same time.

David and Mariah reflect together and wonder what it is about cars and trucks that make them so interesting to children. They invite children to choose a car or truck that they like and using inkpads, make tracks on large pieces of paper.

While the children are working, the teachers prompt discussion with comments such as, “Tell me about your car.” or “What do you like about that car?” David and Mariah write down the children’s responses and notice that nearly every child included a comment about the wheels or about how the car moved. David and Mariah hypothesize that it might be the wheels and the quality of movement that make the cars and trucks so interesting. They wonder what the children know about wheels. This becomes the beginning of a project about wheels.

**Typical learning experiences:**

David and Mariah decide to invite children to go on a wheel hunt around the school. They ask children to point out any wheels that they see. David and Mariah think this will identify some conceptions of what children think is a wheel.

The children point out objects that include wheels on a picture of a truck, circle shapes, and round
three-dimensional objects. David and Mariah ask the children to explain their choices. Some disagreements emerge among the children. Some say that if it is round it is a wheel and some say that it needs to “go around” to be a wheel.

David and Mariah take pictures of these wheels and write down the reasons the children gave about what makes something a wheel. Later, during a meeting time, they show the pictures of the wheels and pose this question: Is there a difference between a circle shape and a wheel?

Through on-going debate and discussion, moderated by the teachers, the children come to the following consensus about wheels: Wheels are round. Wheels go around. Wheels move. Wheels roll. Wheels make it go. Wheels might have something that goes through the middle of them.

The children have created a working definition of a wheel. In this case, correct answers may be a part of the work but more important is, the opportunity to think hard, argue, gather data, reconsider, graphically represent their ideas, and co-construct meaning...[about a shared interest].

The accuracy of the children’s understanding is less important than the fact that existing schemes [lead] to more complex schemes, and eventually to a well-defined theory that [can] be articulated and defended. (Schafer, 2002, p. 191)

**Image of the child:** David and Mariah’s image of the child supports children as active, capable, and motivated to articulate and debate ideas in a process of co-constructing a shared understanding with others.

**Further explorations:** David and Mariah provide an opportunity for the children to experiment with the idea that a wheel has a hole in the middle that something goes through. They gather materials including wooden and plastic spools (with holes in the middle and also with holes that are off-center), metal rings, straws, and dowels. They challenge children to build something with these materials that will roll.

Children notice that if a straw or dowel is placed in a hole that is off center, it rolls in a circle instead of a straight line. Over the course of a few days, the children work and try many different ideas. One problem keeps surfacing: the wheels keep coming off the ends of the dowels as they roll. During this time the children also keep experimenting with different objects to determine if they can be called a wheel. For instance, a small group of children have a recycled CD and are considering if it is a wheel or not. One child tries to roll it on its thin edge and it falls over. So, because it does not go around and roll, they declare it not a wheel.

Then another child picks up the CD and deftly sends it rolling across the floor on its thin edge. They all exclaim, “It is a wheel!” and “It has a hole in the middle!”

In another group, a child is making the claim that it can only be called a wheel when it is actually turning around, otherwise it is not a wheel, only a circle. The children are running into a real-world problem of how to create a definition that is concise enough to be understood yet not so restrictive that it becomes useless.

**Assessment:** For David and Mariah and the children in their classroom, there is no one final product to culminate the project. David and Mariah send documentation of the children’s work home to families throughout the project. The exploration about wheels continued to evolve. After several weeks the children’s interests moved into other areas that were perhaps related to or inspired by the work with wheels, including steering wheels, ramps, traveling, and maps.

David and Mariah can also use the documentation to assess various aspects of children’s learning and development, such as the abilities to communicate ideas and listen to others, engage in contrast and comparison activities, and experiment with the physical properties of motion.

* * *

Research reveals that children learn by actively engaging with the world around them. Through interactions with adults, peers, and the objects in their environment, children are constantly in the process of making meaning about the world. Projects and project work are part of the discourse of early childhood education as a means of incorporating active and engaged learning opportunities in the classroom. As can be seen from the examples, project work can encompass a wide range of possibilities depending on the approach and the underlying image of the child.

No matter where early childhood teachers are on a continuum—from a traditional model, to a project-based curriculum, or a philosophy such as the Reggio Emilia approach—they will benefit from reflecting on their own image of the child.

All good teachers want young children to be strong, motivated, and engaged learners in the classroom. A teacher’s image of the child may support, or inadvertently
“What is a wheel?” The Image of the Child: Traditional, Project Approach, and Reggio Emilia Perspectives

detract, from this goal. Questions to ask oneself include:

- Are children seen as recipients of information and a teacher’s job is to give them the right information?
- Are children viewed as curious and interested in important things and the teacher’s job is to support them as active researchers, finding out the right answers?
- Are children considered to be capable of engaging in a process of thinking and re-thinking together about important ideas that result in a shared construction of knowledge?
- Or is the view of the child a combination of these things? If so, how do teachers negotiate this in the classroom?

The culture in the United States of standardized learning outcomes may seem to place constraints on early childhood education that limit expanding or shifting concepts of knowledge and the image of the child. Yet this should not prevent teachers from uncovering and reflecting on these important ideas. The Project Approach maintains a focus on inquiry and investigation rooted in concrete and tangible subjects. The Reggio Emilia philosophy goes a step further and includes abstract ideas and the process of co-constructing theories as an important aspect of learning and teaching.

Each approach provides avenues to demonstrate learning outcomes, but it is up to early childhood teachers to determine how to reach those outcomes. Reflecting deeply on the meaning of knowledge, the value of the process of constructing shared understandings, and how the image of the child influences these ideas will give teachers insight into the decisions they make every day in their classrooms.

Early childhood educators are urged to seek ways to incorporate, integrate, and value a full range of possibilities in their classrooms. Teachers can create an atmosphere where they can recognize the strength and depth of children’s knowledge, their desire to communicate, and their ability to engage in learning and thinking together.

References


About the Author

Peggy L. Martalock, M.A., is a Doctoral Candidate and Instructor; School of Education; Department of Teacher Education and Curriculum Studies; Children, Families, and Schools Program; University of Massachusetts, Amherst. She has 15 years experience teaching in early childhood classrooms with an emphasis on project work and long-term investigations. Martalock collaborates with a wide range of educators, including those influenced by the Reggio Emilia approach and the use of documentation for curriculum development. Her current research regards teacher development and making children’s knowledge visible in the classroom and the community.