

Got Standards?

Don't Give Up on Engaged Learning!

Judy Harris Helm

As the children enter the kindergarten classroom, they gleefully pull pairs of shoes from their backpacks for a project on shoes. There are big shoes and small ones, sneakers and ballet slippers, galoshes and flip-flops. There are new shoes and old shoes, shiny shoes and dull shoes. One child has even brought in dog shoes!

The children become more excited with each pair that is added to the class collection. When the teacher gathers the group for morning meeting, the children cry out: "Our shoes are all different sizes!" "Jason brought Nikes!" "We've got boys' shoes and girls' shoes!" "When can we play with our shoes?" The teacher explains that they have to do their math lesson and reading work first, and then they can decide what to do with the shoes. The children look longingly at the shelf of shoes.

The teacher sighs inwardly. She loves the interest and curiosity generated by projects and rich thematic units, but she feels the pressure of covering curriculum and meeting kindergarten standards. "If only I could be sure they would learn what they need to know, I could harness this enthusiasm."



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Like many early childhood teachers today, this kindergarten teacher is overwhelmed by early learning standards and the required curriculum experiences and commercial programs that have accompanied the standards movement into early childhood education. Faced with a literacy program and a math program with prescribed time allocations, she feels challenged to "get it all in the day." She is hesitant to engage children in integrated learning experiences because she wants to be sure they are acquiring the knowledge and skills she is responsible for teaching.

The importance of integrated learning

Even in classrooms in which standards and required curriculum are prominent, there is still a place for rich, integrated learning experiences that truly engage children, such as projects. When children are engaged they are excited, curious, and intensely involved in learning experiences that are meaningful to

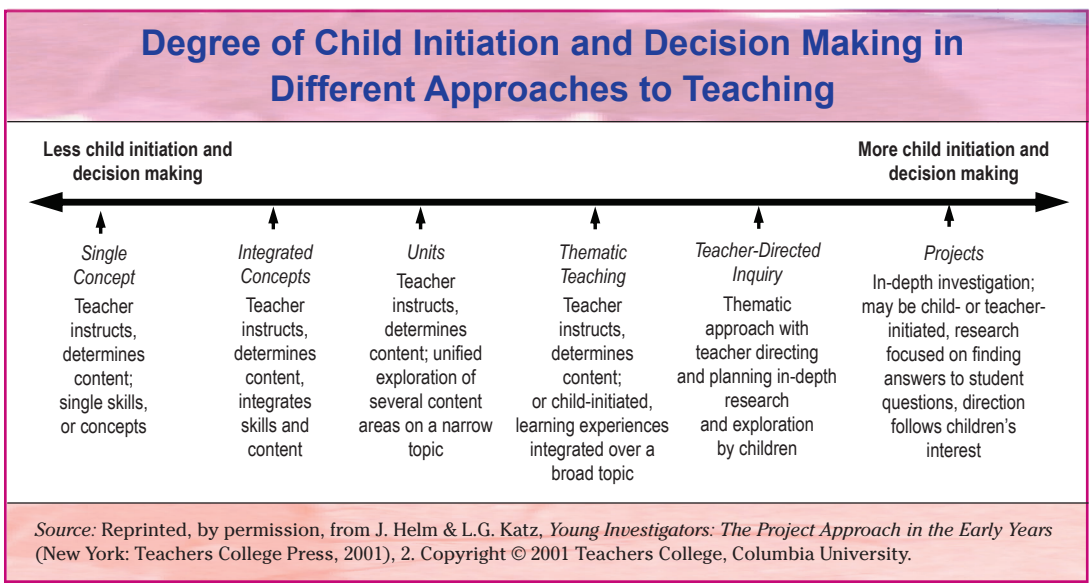
them (Jones et al. 1994); they take responsibility for their own learning and feel energized. They develop and practice strategies for learning and become collaborative. Engagement increases the ability of the brain to remember; adrenaline created through emotional involvement activates the amygdala, a part of the brain that decides which information is important enough to retain. Over time, a stronger and more lasting memory is created when the brain is emotionally involved (McGaugh 2003). Engagement is a valid criterion for selecting learning experiences to include in the young child's day.

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Learning is easier for children when new information is connected to what they already know, not taught in isolation. Research in early cognition indicates that by the time children are 4 years old, they have developed a complex, interconnected knowledge base about the world and how it works. Catherwood (1999), in a review of early cognition research, concludes that the task of early educators supporting cognitive development may be to help children articulate their knowledge and link that knowledge to verbal expression. For example, before reading a book about puppies, a teacher might ask the children if they have a puppy or know someone who does. If a child doesn't know about puppies but does know something about dogs, this could be the focus. A discussion about puppies and dogs will activate those parts of the brain where the children have stored knowledge and vocabulary from previous experiences. This discussion will help children connect what they already know with the new information they will gain. Experiences that support a child in making connections, according to Catherwood, "enhance the richness of neural networks in the child's brain" (1999, p. 33).

For children in the early years of schooling, teachers can provide engaged and integrated learning experiences through the *project approach*, a three-phase structure for in-depth investigation of a topic that interests children (Katz & Chard 2000; Helm & Katz 2001). Integrated learning experiences, such as projects, enable children to connect the knowledge and skills specified in standards (such as counting or reading and writing) to their world. Through project work children see the value of new skills and have opportunities to practice them as they investigate topics of interest to them. Learning experiences in project

work are authentic (real world) and integrative, both characteristics of engaged learning (Jones et al. 1994). Engagement and integration increase when children have an opportunity to investigate something of great interest to them and have a say in what they want to learn about the topic.



The role of child initiative and decision making

Effective early childhood teachers use many different approaches to teaching knowledge and skills. One way to think about these approaches is to place them on a continuum of how child initiated they are, meaning how much of a role children have in determining the direction of study. In the diagram “Degree of Child Initiation and Decision Making in Different Approaches to Teaching,” learning experiences that result from teaching approaches on the left side of the continuum are more teacher determined and teacher directed. Learning experiences on the right side of the continuum involve children more in determining the focus of the learning and in planning what to do.

All approaches on the continuum are valuable and valid ways to teach young children. The approach used may be determined by the content to be taught. For example, when teaching children how to cross the street (to meet a standard on “knowing and using safety rules”), it is best if the teacher determines the content and the most efficient way for children to learn this valuable information.

Children can easily learn knowledge about and skills for “collecting and using data to answer questions” during project work, when they will find these skills useful in completing their work. Sometimes the choice of approach is based on how much time is available to teach the concept or skill.

Teachers most often combine approaches to curriculum as they plan their week. For example, a teacher may plan for a unit on magnets in the science area; a lesson on learning how to stop, drop, and roll during large group time; and independent child choice time during which children may choose to continue their work on a project on turtles. These events may occur in the classroom during the same week, the same day, or even the same hour. By using multiple approaches, teachers introduce children to much knowledge and many skills and offer children opportunities to practice and extend their learning.

Even though all approaches are valuable, teaching approaches on the left side of the continuum (teacher-determined content, narrow units and instruction in single skills and concepts) should not be the only ones used in prekindergarten and primary classrooms. Spending too little time on the child-initiated side of the continuum may actually be harmful. When learning experiences never venture into directed inquiry or project work, children are less likely to develop the higher-level thinking skills of analyzing, hypothesizing, predicting, and problem solving (Katz & Chard 2000). Teacher-centered approaches can limit children’s vocabulary development. These approaches can also be less motivating for children learning and practicing academic skills. For example, a child who wants to know how many children have shoes with Velcro fasteners versus shoes with laces is motivated to count and write numerals. A child who is making a model of a drink machine is motivated to identify words that indicate the kinds or brands of drinks and to copy and practice reading those words. These experiences not only motivate but provide an opportunity and an authentic reason



You're invited

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Judy Harris Helm, author of this article, invites you to join her in an online discussion about the challenges of incorporating standards into engaging learning experiences, such as projects, for young children. Participate. Ask questions. Share solutions. For more information and a link to the discussion, visit the Beyond the Journal Web site:

www.journal.naeyc.org/btj/200807

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to practice counting, reading, and writing. Unfortunately, teaching on the single-concept, teacher-centric side of the continuum is often recommended, and in some cases mandated, by school district administrators or directors of early childhood programs.

Exclusive use of teacher-directed teaching approaches is especially problematic for children at risk. Martin Haberman (2004) labels these teacher-controlled approaches *directive pedagogy*, part of an ineffective *pedagogy of poverty* that focuses teachers on compliance and low-level thinking skills, which limit children's achievement and thirst to learn. Research also suggests that formal, didactic instruction in basic skills may produce more positive results on standardized measures in the short term compared to approaches that give children more initiative and choice, but will not produce higher school achievement

in the long term (Marcon 1995, 2000; Golbeck 2001). Even for learning to read, which requires mastering many specific skills, research supports the importance of a balanced approach that emphasizes children's engagement (Cummins 2007).

Most teachers understand that children need learning experiences all along the continuum. Unfortunately today's emphasis on standards and required curriculum is resulting in squeezing most of the children's day into the left side of the continuum.

Integrating standards into engaged learning

It is possible to teach required content and skills through project work and other child-initiated learning experiences such as a shoe project. For example, the shoes need to be sorted so they can be placed on the shelves of a pretend shoe store created by the class. As the children discuss and decide how to label the shelves, how to arrange shoes on the shelves, and where to place each pair of shoes, they learn and practice the math skills of sorting, classifying, and reading numerals. If the teacher has anticipated and prepared for the experience by providing photos of the aisles of a shoe store and shoe catalogs and flyers for children to use as resources, they will also be engaged in literacy. The teacher can take the first step to rich integration of standards and required curriculum into engaging learning experiences by making sure he has a clear understanding of *what* children need to learn and then anticipating *how* they might learn these in the learning experience.

Anticipating the opportunities for integration enables teachers to be prepared with introductory lessons, materials, and supplies and also to interact supportively with children as they do their project work. For example, while children are looking at and talking about the shoes in their shoe collection, the teacher can extend vocabulary by introducing names for the parts of shoes, encouraging children to compare parts of shoes on different models, or even spontaneously showing children how they could create a chart comparing shoe parts. These supportive interactions are more likely to occur if the teacher has anticipated vocabulary and skills possible in the project.

There are specific strategies that teachers who do project work have found helpful in doing this anticipatory planning. The strategies described below can be helpful for rich thematic units or teacher-directed inquiry also.

Know the content, skills, and dispositions you are supposed to teach—Make a list

A first step in anticipating opportunities for integration is to analyze curriculum goals and standards and make a comprehensive list of the knowledge, skills, and dispositions children need to develop. Often teachers do not have a clear understanding of exactly what children need to learn and what they are to teach. There may be learning standards (from the state), a teacher's manual for a math or literacy program, and sometimes another list from the report card.

Often standards are global but children's progress is assessed using a checklist that is more specific. For example, there may be a global standard ("Use concepts that include number recognition, counting, and one-to-one correspondence," from the Illinois Early Learning Standards—Kindergarten), but children will be evaluated on a report card including items to be checked, such as "Recognizes and writes numerals 1–30" and "Can make sets." Sometimes a content program (such as a math book or reading book) may contain additional knowledge and skills that are not required to be taught in every local program. Textbook publishers include everything they feel that any school might want so that their books are applicable to a large number of schools. Sometimes topics in a required curriculum program are introduced to build awareness; mastery is not expected. Just because there is a page on reading pie charts in the manual, this doesn't mean that a teacher is responsible for teaching it or that all children must master that concept at this time.

A teacher who finds herself in a program that has manuals for required curriculum materials, a separate list of standards, and an assessment system with another list of goals (which may or may not be coordinated) will find it less frustrating and more effective to work with a consolidated comprehensive list. For example, a teacher might find that a state standard indicates that children "Count with understanding and recognize 'how many' in sets of objects." However, a curriculum guide may indicate that 4-year-olds should be able to count 10 items before entering kindergarten. A list distributed to families of incoming kindergartners may indicate that children should be able to count to 10. The teacher can make one consolidated list of all math requirements and their sources and then seek assistance from supervisors to clarify discrepancies. This list will be very helpful as the teacher integrates standards and required curriculum goals into engaged learning. A clear understanding of what is to be taught is essential. Training on integration of standards may be available for teachers, or they may find published tables that correlate required curriculum programs with local or state standards. Such resources will help with this consolidation task.

Align the introduction of skills and concepts with children's engagement

Once teachers know what children need to learn and do, they can look at their curriculum guides and see if there is a particular sequence for the introduction of concepts. In multiage early childhood classrooms, this is not usually an issue. Kindergarten and primary curriculum guides, however, are usually arranged chronologically. Look to see if the knowledge or skill has to be introduced in a particular sequence. Often the order is flexible so teachers may introduce skills when they are most meaningful to children instead of following the order in the manual.

For example, in the shoe project, measuring feet to determine the correct shoe size is relevant to the children. If learning how to use standard units of measurement (such as inches) or even nonstandard units (such as Unifix cubes or straws) is a curriculum goal, then this is a perfect opportunity to teach the skill. Anticipating what skill might be needed, then teaching it at the time children must use it maximizes the children’s engagement. Even when the skill requires explicit teaching, you can teach it during more formal times of your day, then use the project work as the “practice time” for integration and application of the newly developed or previously taught skill. As teachers create the comprehensive list of what they are supposed to teach, they can note what knowledge and skills will require explicit teaching or must be introduced in sequence and those that can be moved to take advantage of children’s engagement.

Create an anticipatory planning web that includes knowledge and skills from your list of standards and required curriculum goals

Creating anticipatory planning webs when preparing for project work makes it easier to integrate required curriculum in response to children’s interests and lessens the chance that teachers will miss opportunities for skill building and practice. Teachers or teaching teams create planning webs in anticipation of all the possible opportunities for curriculum integration.

TO MAKE AN ANTICIPATORY PLANNING WEB

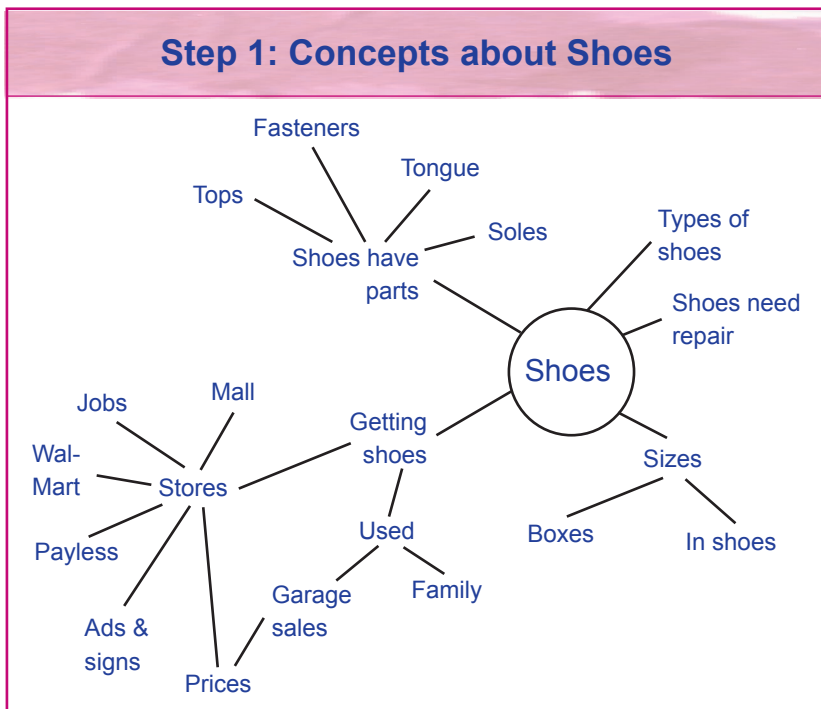
1. Write the main study topic in the center of a blank page using a marker. In the same color add *concepts about the topic* in a web format. For example, for the topic *shoes*, concepts might include “Shoes have parts,” “Shoes come in different sizes,” “Shoes are bought” (see “Step 1: Concepts about Shoes”).

Keep your focus on concepts about shoes; do not list activities for children to do with the shoes. If this is difficult, imagine a book titled *All about Shoes* for elementary-age children, and think of the concepts you might find in that book. The book would not include activities to do with shoes, only content about the world of shoes.

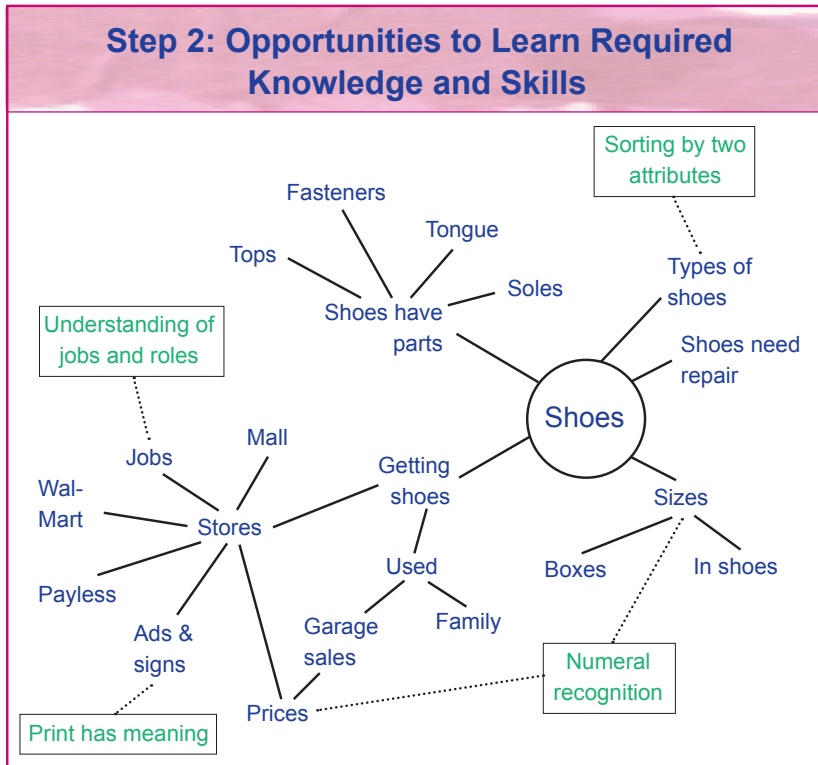
2. Review your comprehensive list of knowledge and skills related to the standards and required curriculum goals; compare with your concept web. Determine which concepts would *naturally* and *authentically* provide opportunities for children to learn specific knowledge or skills.

For example, the world of shoes is a natural topic in which children would use numeral recognition (“Use concepts that include number recognition,” from Illinois Early Learning Standards—Prekindergarten). Learning opportunities

could include reading the shoe sizes printed in the shoes and on the boxes or the prices of shoes shown in store ads or signs in shoe stores.



It is important to use this stage of the webbing to discover the most authentic and meaningful opportunities for children to learn; do not start thinking of teacher-directed activities. Write an abbreviated version of the appropriate standard (skill or knowledge) next to the concepts for which a learning opportunity is likely to occur. For example, next to “Prices” you would write “Numeral recognition” (see “Step 2: Opportunities to Learn Required Knowledge and Skills”).



Keep your focus on situations in which children might see the value of relevant knowledge and skills or times when they might naturally practice their application. Do not write possible lessons or learning experiences. The goal of this step is to find authentic intersections between the topic concepts and the knowledge and skills you are to teach. In the next step you will begin to think of possible learning experiences.

3. Look at the web, which now has concepts in one color and knowledge and skills in another. Select an area where a concept and a standard or goal come together, such as “Sizes” and “Numeral recognition.” Think of a possible authentic learning experience for children that combines these two. For example, you could show children where sizes are located on shoes, and they could then sort the shoes by sizes as they would be in a store. This is an authentic, or real, task performed in

shoe stores. This activity shows children the usefulness of numerals and motivates them to learn. They are likely to repeat the activity at home, gaining additional practice with numerals. The task is highly engaging for children.

Contrast this with a shoe theme activity that is not authentic. A teacher prepares construction paper cutouts of pairs of shoes. On one shoe in each pair she places dots. On the other shoe in the pair she writes a numeral. She asks the children to make pairs of shoes by matching numerals and dots. This activity fails to engage the children in the same way, does not demonstrate the value of learning numerals or using them in the real world, and requires teacher monitoring for children to complete the task.

Look at each place on your web where concepts and knowledge and skills come together. Make a list of possible engaging learning experiences.

4. Choose one or two possible learning experiences from the list you have generated. The children may create a shoe store in the classroom, visit a shoe store, collect shoes, or even dissect shoes. As children become more involved with the experiences, you can easily integrate the appropriate knowledge and skills because you have anticipated the opportunities to do so. You will be prepared to “teach on the fly,” incorporating content or extending learning as children become more involved with the topic. For example, you might teach children how they can use a graph to record data in response to a child’s observation that there are almost as many slip-on shoes as shoes with Velcro fasteners.

5. Identify which concepts are of the most interest to the most children by observing children’s involvement in the initial learning experiences. If children appear to be more interested in *shoe repair* than *shoe stores* or *where shoes come from*, then shoe repair can become the topic of the project, maximizing the children’s initiation, engagement, and decision making. You can cut out that

section of the planning web that addresses shoe repair and move it to the center of the web to remind everyone of the new topic. Instead of the *shoe* project, the children are participating in the *shoe repair* project (see “Step 5: Maximizing Engagement by Adjusting Topic Focus”).

When you cut out and move the repair section to the center of the knowledge and skills web, many of the concepts and useful and meaningful applications of the knowledge and skills will remain applicable to this new, more narrow topic. Other concepts or applications will be replaced, dropped, or moved to another, newly added concept. Selecting the topic to match the children’s engagement and then encouraging children to develop questions and find answers to their questions increases child decision making and engagement and moves the learning experience to the right on the continuum to teacher-guided inquiry or project work.

As the learning experience progresses, you can determine whether to introduce

knowledge and skills before children need them or during an experience, or whether the learning experience itself will provide mainly practice. For some children each of these methods must be used; you must introduce the knowledge or skill before the child will use it, demonstrate and provide coaching at the time it will be used, and then allow the child plenty of time for practice.

Plan for documentation

It is important for teachers to keep track of which ideas they have introduced to children and what children are and are not learning. Just because a learning experience occurs does not mean that a particular child will be engaged in it or learn the knowledge and skills you have planned to teach. As in all learning experiences, both teacher-directed and child-directed, the teacher must observe to see if each child is meeting the standards. The use of observation notes and photographs, plus the collection of children’s work, enables the teacher to be sure that anticipated learning becomes actual learning, that children master knowledge and skills, and that each individual child is participating in some way and moving toward the required curriculum goals or standards (Helm & Beneke 2003; Helm, Beneke, & Steinheimer 2006). Anticipatory planning should also include preparing materials for documentation.

