

Strategies to Incorporate Literacy in Project Work in the Pre-Kindergarten Classroom

Sallee Beneke

Introduction

Children are developing concepts about reading and writing long before they begin to produce conventional print or begin to read in the conventional sense. In fact, “reading and writing acquisition is conceptualized better as a developmental continuum than as an all-or-nothing phenomenon” (NAEYC, 1998). It is also important to recognize that literacy includes other skills in addition to reading and writing. Consequently, in many states, such as Illinois, listening, speaking, and conducting research are considered integral aspects of literacy and are included in standards for early childhood education (Illinois State Board of Education, 2002). In combination, these skills support children in learning and communicating their ideas.

This communication of ideas and concepts is an integral part of project work and provides a wonderful context for pre-kindergarten children to develop their literacy skills. In addition, not only does project work provide many, many opportunities for children to apply the literacy skills they already have, it also motivates children to acquire new skills so that they can undertake research and communicate about the topic more deeply. The resulting growth can be seen in their use of print for communication, as well as in their listening, research, and connection with books. As are many skills in real life, literacy skills are often applied simultaneously in an integrated, rather than isolated, way. For these reasons, literacy skills are best taught and acquired in a context in which they are useful and meaningful to the child, such as that created by the Project Approach. Teachers can capitalize on this context by making use of several strategies that support children in using skills in an integrated way.

Practical Strategy 1: Use Webs to Record Children’s Concepts, Knowledge, and Theories

Webbing is a process that can be used throughout the project. This process can begin in Phase 1 when the teacher records the children’s prior knowledge of the topic. New knowledge and concepts can be added in Phase 2. A web that summarizes all that has been learned is often displayed as part of Phase 3.

Webs can support the development of pre-kindergarten children’s reading skills in several ways. Children offer ideas to be recorded on the web. As the teacher records their ideas on the web, children are able to see that print stands for these ideas; they see print as a meaningful, useful tool. The use of webs is especially meaningful to children if the teacher creates an expectation that the web is a working document. As a project develops, she can return to the web periodically and review what has been included by pointing to each word as she reads it out loud. Through her comments, she can help children connect the print with prior discussions. For example, on February 25, a new incubator was delivered to our classroom, and as it became apparent that the children were interested in discussing this addition, I began a web of their ideas about eggs. The following day, we revisited the web. Several children who were not there on the preceding day were interested in knowing what had already been written and who had suggested each item. I read and pointed to each word on the web and noted who had contributed each idea.

The words dictated on the first day were mainly simple pieces of information, such as types of animals that lay eggs. However, on the 26th, as

children added to the web, hypotheses and theories began to emerge. For example, on the 25th, it was suggested that eggs can be different colors. On the 26th, Sara said, "Birds lay eggs that are pink, blue, yellow, and purple." When asked why the eggs are different colors, Sara said, "It depends on the color of the bird." Sentences and phrases such as these can be recorded on a web, and as the children learn more about the topic through their project investigation, these phrases can be revisited and expanded or revised.

Recording the information in a web format is more useful than a list when the information is to be expanded on and revised on an ongoing basis. Children take pride in the words that they have suggested to be added to the web, and they like to "read" them. It is easier for the child to locate his own dictated words when he can remember the position of his words in relation to the rest of the web. Writing the child's name next to his contributions also helps the child to locate his words. Children can combine their understanding of letter/sound combinations with the clues described above and use the information to "read" the words. Children in our class are often able to read their words and also the words contributed by many of their friends. Because the web is usually created as a result of group discussion, several children are generally involved in the ongoing discussion and use of the web. The web becomes a shared history of their discovery and is therefore more meaningful to them. Children can model for and assist each other in locating and reading the words on the web. It is also easier to expand on concepts and ideas when text is arranged in a web rather than a list. Items on the web are more likely to have adjacent white space available for elaboration of ideas, while this flexibility is limited in a list. The web can be reduced and copied so that children can take it home and discuss their ideas with their families. If children take a web home periodically, parents can note and reinforce the use of additional vocabulary words and new ideas that have surfaced as the project has developed.

Practical Strategy 2: Take Dictation

Taking children's dictation allows the teacher to model the process of recording ideas with symbols.

Opportunities to take dictation occur frequently and are very useful in all three phases of project work. For example, in Phase 1, children can dictate stories about their prior experience with the topic. In Phase 2, they can dictate plans for investigation, or they can dictate what happened as they did their fieldwork or interviewed guest experts. Throughout the project, the children can be encouraged to dictate narrative to display with documentation of their work.

In Phase 3, they can take the long view and dictate the overall story of their investigation and what they have learned. Project work especially lends itself to the creation of child-dictated and illustrated books. For example, they can tell about what happened first, what happened next, and so forth. They can explain what they learned, and they can tell about their future plans. Children who have conducted an in-depth investigation can also write books from the standpoint of experts on the subject of their investigation. For example, in the Greenhouse Project, the children wrote a book about what helps flowers to grow and what will kill them. Children can illustrate these books with their drawings, or they may choose photographs from a class collection.

Practical Strategy 3: Provide Ongoing Opportunities to Journal about the Project

Offering individual journaling as a routine classroom activity helps children make a regular, personal connection with the practice of writing. This practice can be helpful even at the pre-kindergarten level, when most children's writing skills are only beginning to emerge. Making the project topic a part of the journaling process can help motivate children to participate in journaling by providing them with something to write "about." Likewise, encouraging children to journal about project-related items can help teachers to "read" out loud what the child has written in her journal. We provide this connection to project work by incorporating project-related items into a daily script that is offered as a possibility for journaling. We also provide concrete, project-related objects that can be drawn by children who are at earlier stages in the development of their writing skills and

who record information with pictures rather than print. Often, children do both.

Younger children are often encouraged to participate in journaling by watching the older children journal. For example, on one of her first days at our center, 3-year-old Adia chose to join 4-year-old Nicole at the writing table. That day, the children were folding and cutting snowflakes, and several pre-cut snowflakes were displayed on the writing table. The script for journaling at the writing table was "Today we have snowflakes." Four-year-old Nicole chose to copy the script and draw the snowflake (Figure 1a). Three-year-old Adia's entry (Figure 1b) included a drawing of the snowflakes, attempts at drawing the letters in her name, as well as other drawings and letter-like shapes. Offering children routine opportunities for journaling communicates the expectation that the child is a "writer" and encourages children to move toward using writing to communicate. As the teacher supervises the writing table, she can help children make the connection between letter combinations and their sounds by sounding out the portion of the words that children have written so far. Children love to have adults read what they have written.



Figure 1b. Adia drew a snowflake and tried to write the letters in her name.

Practical Strategy 4: Record Project Words on a Word Wall

As we discover new vocabulary words in the course of a project, we write each word on an unlined index card and post it on the wall alongside the writing table. This wall acts as a lexicon for the children as they visit the writing table during choice time. Many of the cards on the word wall are written by the teacher, but children can also volunteer to print the word on the card. The teacher can add a drawing or other picture of the item alongside the text on the card. This strategy helps children to determine which card is likely to contain the word they want to use. As with journaling, the teacher can help the child to figure out how to sound words out by modeling the "sounding out" process.

Practical Strategy 5: Emphasize Print in Real-Life Context

Children who are engaged in project work often have to use real artifacts and materials in the course of their investigations. Teachers can assist children to see the usefulness of print by reading and referring to environmental print that will provide useful information to children in their project work. For example, during the Greenhouse Project at our center, the children looked through photographs taken during the construction of a neighboring greenhouse. The children were especially interested in the heavy equipment used in the construction. Several of the children chose to draw these machines, and they typically included the letters and words that were printed on the machines. As the children encountered these words, the teacher would read them to help the children understand the meaning of the photograph. The teacher can take advantage of these opportunities to help children recognize letter/sound relationships in a meaningful context.

Practical Strategy 6: Encourage Child-Created Signs and Labels

As children uncover new knowledge in Phase 2 of project work, they often create constructions, pictures, or other representations or models of their work. They are usually eager to display their accomplishments and take pleasure in helping viewers to understand their work. Rather than labeling these creations herself, the teacher can encourage children to write or type their own labels. Many such representations and constructions were created in the Greenhouse Project. The children created their own greenhouse, complete with plants, pots, flowers, and tools. They labeled these constructions so that visitors to the classroom would be sure to understand their meaning (see Figure 2).

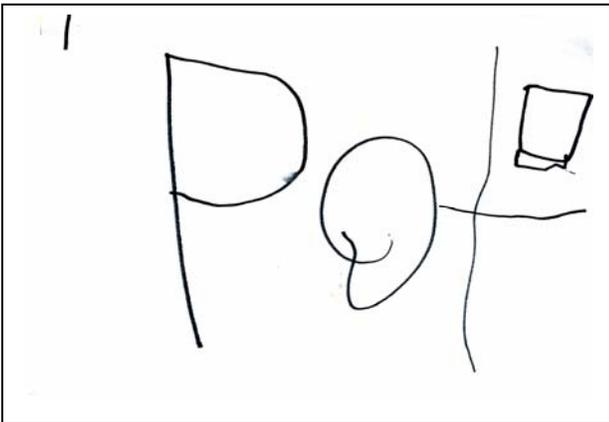


Figure 2. A child labeled a greenhouse "pot."

Practical Strategy 7: Chart and Graph Results

Teaching the children to record their observations on charts and graphs is another way to help children learn to use and interpret print. In Phase 2 of project work, children often make hypotheses and predictions, and then they test them. Children who are beginning to enjoy copying words often enjoy recording the results of these investigations. For example, during the Car Project, children predicted which parts of a car would attract a magnet. Their predictions were recorded in one column, and the results were transferred from the small version of the graph that the children took with them as they experimented. Four-year-old Lisa asked if she could record the results. She copied the words "yes" or "no" onto the large

poster-size classroom version of the graph so that all the children could see the results (see Figure 3).



Figure 3. Lisa copied the words "yes" or "no" on a graph.

Practical Strategy 8: Encourage Use of Symbolism across the Curriculum

When they read, write, and speak, children use systems of symbols to communicate. As children engage in dramatic play in the housekeeping or block areas, they can act out events in their lives and take on the roles of others. In essence, through their dramatic play, they are symbolizing what they know. Likewise, as children draw and paint, they are often creating representations of real objects or events. The objects, events, and people involved in the three phases of project work often provide a rich collection of experiences and information that children can draw on and interpret in symbolic play and representation. This process can help them digest or organize what they already know. It can take place in almost any area of the classroom and across the domains of development.

Practical Strategy 9: Use a Variety of Research Materials

Many types of printed materials can be used for research and reference in projects. Reference materials that are geared toward young children can be very useful, but printed matter developed for adults can also be useful. In fact, children are often more motivated to use "real" adult materials than they are to use those developed for children. These materials can include flyers and brochures, manuals, magazines, instruction pamphlets, and

books. For example, as the children helped to unpack the incubator to hatch duck eggs, they looked at the diagram and instructions for assembly. The teacher helped them to find words on the instructions that matched the print on the incubator itself, such as the model number and the temperature settings. As children look at materials such as these, the teacher can apprentice them in learning about the various ways in which reading material is organized. For example, they can learn about columns, chapters, tables of content, and glossaries. This type of practical application of reference materials helps children to see the usefulness of reading and motivates them to apply reading in solving problems and answering questions through research.

Practical Strategy 10: Read for Humor and Enjoyment

As Lilian Katz has said, project work helps children develop their “horizontal knowledge” about the topic. Rather than knowing a little bit about a lot of things, they become experts and know a lot about the project topic. This knowledge helps them to recognize the humor in stories, nursery rhymes, and other writing involving fantasy. Children also enjoy reading about something that is familiar to them. As experts on the project topic, they can enjoy and recognize stories that revolve around realistic characters and plots, and they recognize jokes that have their basis in reality. For example, in a project on eggs, the children might have experience with a rotten egg and would recognize the meaning of the saying, “Last one there is a rotten egg.”

Practical Strategy 11: Discussion

Discussion is an important feature of project work. Children and teachers often discuss the next steps in a project during a large group meeting and then agree on teams that will carry out the work that is necessary to carry the project forward. As children discuss their hypotheses, possible experiments and resulting findings, ideas for group constructions, and work plans, they learn to take turns in conversation, consider the content of others’ ideas, and respond in a constructive way. For example, during a project on cars, three girls discussed the

colors of markers they would need to bring along to mark their survey (Beneke, 1998, p. 48).

Mary (picking up a green marker): I can do this, too.

Marissa (to Mary): Mary, no! They’re supposed to be all different colors! We already have a green one.

Emma: A green one. That’s light green.

Mary (Mary picks up a pen): But you don’t have black.

Marissa: That’s a ... Hey, sorry ... That is a pen. (pause) A pen does not count.

The teacher can extend discussion about the project to the home by sending home Project Updates or by including a description of the project in a current center newsletter. At the IVCC Early Childhood Education Center, we frequently feature the current project as our headline story.

Practical Strategy 12: Learn to Form Hypotheses and Questions

Projects offer children many opportunities to form hypotheses and questions. For instance, in Phase 1, the teacher often creates a web or list of what children currently know about the topic. In the Egg Project, one of the children noted that eggs can be blue, purple, and green. She hypothesized that the color of the egg “depends on the color of the bird” that laid it. As the project moved into Phase 2, the children began to dictate questions for further investigation. Among the questions they asked were, “How long does a duck live?”; “Will the ducks bite our fingers?”; and “Do all ducks quack?” Teachers can help children begin to form questions by modeling questioning, by recognizing the children’s attempts, and by rephrasing them in a question format. For example, in the Egg Project, I started the children off by asking the children, “What part of the bird do you think will grow first inside the egg?” Children are often curious about an aspect of the topic, but they don’t know how to phrase their words in a question format. In this case, I often take their statement, rephrase it as a question, and then check with them to see if I have given their question voice. For example, as we listed our questions about eggs and ducks, 3-year-

old Eric said, “How does a duck swim on the ice, because he might slip?” I said, “Are you wondering if ducks can walk or swim on the ice when the water is frozen?” Eric eagerly nodded his agreement. Sometimes, it takes several attempts at rephrasing before we reach agreement about the question, and in the process, the children build their ability to form questions.

Conclusion

The three phases of project work provide many opportunities for children to apply literacy skills in ways that are meaningful to them and that motivate them to learn more. This approach is effective because the reading, writing, speaking, listening, and research are *about* something that takes place in a context that is meaningful to the child. This meaningful context not only encourages children to apply skills and helps them to believe that someday they will be readers and writers, it creates a context in which they *are* readers and writers at their own level. With the support of teachers and parents, these literacy skills can be developed and refined so that children can develop these literacy skills as life-long, useful tools.

References

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