

# Strategies to Incorporate Literacy in Project Work in Primary Grades

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## Introduction

After attending an evening culmination at our school, the middle school assistant principal commented to me: *"If I had my own classroom again, this is what I would want it to be like. The subject areas aren't separated in real life; why do we separate them in school?"* Her comment affirmed for me that project work is an ideal approach for complementing the curriculum in that a project is carried out by the children as they intertwine curriculum skills in order to learn about something in depth.

The purpose of this chapter is to give examples of how teachers can apply various strategies to enhance the development of children's literacy skills as they are engaged in project work. I will share strategies that I apply with my second-graders. Although this chapter focuses on literacy skills and strategies for their application during project work, the reader will recognize how literacy skills interrelate with other subject areas, generating an interdisciplinary approach to teaching.

## Reading

### Practical Strategy 1: Provide Opportunities for Vocabulary Development

Many aspects of project work provide opportunities for the vocabulary development necessary for good reading skills. Numerous occasions that enhance vocabulary take place naturally as a result of following the framework for a project, according to Katz and Chard (2000). For example, our project on birds began with the webbing process. The children brainstormed in response to some open-ended questions that I proposed: Describe how

birds move. What do they eat? What is good/bad about birds? Where can you find/keep them? What sizes can they be? What colors are they? What parts do they have? Why are they important? The children wrote a word or phrase on each of eight cards to express their current ideas. Then, we met as a group to share the results, grouping their responses into categories. The category *What is good about birds?* prompted one child to write that birds are aerodynamic. Many children asked him what that meant. "My dad and I built a car for Boy Scouts once," he said. "It was aerodynamic because its shape helped it move faster." As other ideas were shared and glued on the web in the correct category, the web was displayed and used as a reference for the remainder of the project. Ultimately, as our study progressed, we were able to add new information that we learned and cross out ideas that had been incorrect. By adding new information to each category, vocabulary growth was documented.

Phase 1 of a project with primary-grade children also entails the sharing of personal stories. Before each project, I send letters to parents to inform them of the topic, encouraging them to share personal stories at home with their child. Then, children share stories with their teammates. Sometimes, they each tell a personal story while their three teammates listen; teammates are then given opportunities to ask questions about the story. Other times, children share stories in pairs, taking notes and drawing pictures while listening, so that each child can paraphrase a partner's story, retelling it to the whole team. The interaction involved in listening, paraphrasing, and asking questions generates an abundant exchange of vocabulary (Figure 1).



Figure 1. Taylor uses her illustration to help her tell her personal story about a tree to her teammates.

Field experiences always expose children to new vocabulary. Listening to experts and adults other than the teacher is captivating for them. As they hear new words, they frequently ask about the meaning, spelling, and so forth. They record the words on their notes, and we document the collective notes on a chart after our trips. The charts are always on display for use as resources. Gradually, the children begin using the new words in their casual conversations as they work together on their investigations. For example, at the beginning of our study of the human body, I observed many children referring to organs as “guts.” After a field experience to the local hospital and after sketching models of organs in the classroom (heart, brain, eye), children began using the correct terminology or referring to the organs by name (kidneys, brain, heart, liver, intestines, stomach, and so forth). New words frequently surfaced in their informal and formal writing, as well. Having been exposed to vocabulary associated with the topic also made it easier to read secondary resources for information.

Of course, teachers can model new vocabulary, too. As the children moved from table to table sketching the human body models, I used various vocabularies to model the use of words. For example, several of the children were preparing to draw the brain, but they had taken the model apart and were putting it back together so they could sketch it. They could not get it to fit together, and when they asked me for help, I suggested that they ask the brain *specialists* at the other table. This

approach helped the children understand that a specialist has knowledge about a particular part or function of the body. They had become *specialists* by studying the brain and knew how the pieces fit together.

These examples show just a few of the opportunities for vocabulary development that occur *naturally* during the course of a good project. Of course, systematic instruction occurs, as well. One example of using systematic instruction to build vocabulary and complement a project is the teaching of how to write poetry. As an all-week assignment at the writing center during our Rock Project, the children drafted, revised, proofread, and published rock poetry. Choosing a favorite rock from their personal collections, they followed the format for cinquain poetry and drafted the poems. When we reached the revision stage, I asked them to use a thesaurus to change at least one of the words in their poem to another word. The fourth line in Kody’s poem originally said, “It is very special.” In the thesaurus, he found a synonym for *special*; he replaced *special* with *notable* (Figure 2).

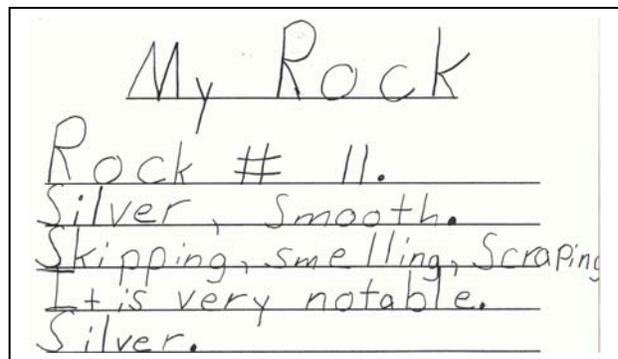


Figure 2. Kody used a thesaurus to change a word in his poem.

### Practical Strategy 2: Encourage Children to Use Informational Resources

After using primary resources, such as experts in the field, the children sometimes need additional information for their investigations. They use secondary resources, such as nonfiction books, the Internet, and so forth. To discourage children from simply copying what they read at the risk of not understanding the text, I ask the children to

paraphrase the information for their use. If they have difficulty paraphrasing, I simply ask them to close the book and explain it to me or a friend. In one instance, Maren, studying germs, brought her book to me and said, “I want to write this down but I don’t know how to do it without copying.” To which I replied, “Okay, let’s close the book and see if you can explain it to me.” She explained beautifully in her own words that “our body has cells called defender cells that protect us from germs.” “That’s a very good explanation!” I said, and she wrote it down.

Informational books and other materials provide many opportunities to learn reading skills, such as using the table of contents and the index, scanning to determine what part of the text is useful for an investigation, and deciding whether or not to accept what is read at face value. Maren had recently read about the food pyramid during our human body project; one morning she told me that her dad and she had doubted if the bread/cereal group should be at the bottom of the pyramid, indicating that this type of food should be eaten the most. When visiting the hospital, she asked the doctor about it, and the doctor told her that the experts who had developed the pyramid were actually in the process of reconsidering that very thing! They were beginning to suggest that fruits and vegetables should be the largest section!

### **Practical Strategy 3: Provide Opportunities for Publishing and Reading Child-Made Books**

As the children begin to represent their new knowledge, one option considered is writing a book. Whether writing a regular book, pop-up book, or shape book, the basic parts of the book are front cover, title page, dedication page, first page with a main-idea sentence(s), pages with details, conclusion page, and, finally, pages that tell about the author(s). The books are read to the group at our meetings for sharing project work; children also enjoy reading their books to visitors during culminating events. Many times, children decide to donate their books to our class library after the project ends, so children now have access

to a large selection of current and previously made books.

Furthermore, many of our reading or writing assignments are a result of systematic instruction in areas that lend themselves well to class books. Alliteration, riddles answered in a complete sentence, similes, math story problems, and poetry are examples of skills that are practiced as learning center assignments and then compiled to make books. In one instance, we wrote a class pop-up book when we were engaged in a water project. At the writing center, each child wrote a paragraph to describe something related to the topic, such as sink water, river water, and so forth; their assignment was to include similes in their descriptions. Each child’s essay and pop-up illustrations were included in the book.

## **Writing**

### **Practical Strategy 4: Provide Events That Encourage Writing**

Project work provides copious events that encourage purposeful writing. Personal stories from Phase 1 are written and illustrated for display. Notes are written as children listen to experts or go on field experiences. Children paraphrase their research, writing notes to be used when making representations: books, webs, charts, diagrams, murals, paper-roll movies, graphs, and so forth (Figures 3 and 4). They often write informally in their daily journals about the project topic. As a part of systematic instruction, they may write a persuasive essay to help us decide what to study for our next project; they may write an expository essay to explain how to make a book, diagram, and so on. During Phase 2, children write in learning journals each morning. These journals are a daily log of our project journey. They record the date, tell what they are working on, describe how it is progressing, state their goal for the day, or express how they feel about their work.





Figure 4. Kelci's flowchart tells how an acorn becomes a tree.

### Practical Strategy 5: Encourage Children to Create Thank-You Cards and Letters to Experts

Each time we go on a field experience or invite an expert to visit our classroom, the children thank the expert in writing. They often design thank-you cards, including at least one item of information they learned from the expert. They use our class charts of collective notes as a reference. They are also encouraged to let the expert know their personal feelings about the experience (Figure 5). When teaching letter writing, the children express their appreciation in the form of a friendly letter.

## Speaking

### Practical Strategy 6: Plan for Language-Rich Group Gatherings

Our class meets at least three times a day at the carpeted area. In the morning before beginning project work, we meet to hear a few children read their learning journal entry to the group, so we

Figure 5. After we walked along the riverbank with a park ranger who helped us spot birds, Randi wrote this card to him.



know what they are planning to do for the next hour. We meet again right before lunch in order for several children to share progress on their investigations. After they explain their project to the group, other children may offer comments, suggestions, and encouraging remarks; they may also ask questions. The purpose of our meeting at the end of the day is for listening to several children read their daily journal entries. Sometimes, we have discussions that lead to differences, which lead to new questions; through these discussions, children learn how to wonder about things and ask questions, which are documented for all to see. When meetings occur frequently and there is adequate time for the meeting process, children gradually become comfortable speaking in front of a group. Eventually, some of the children may even offer to speak to parents as we gather for refreshments before each culminating event. Taking parents through the classroom and explaining each project is another opportunity for children to speak to others. They particularly enjoy explaining the displays to children from each classroom as they visit our room the day after evening culmination (Figure 6).

### Practical Strategy 7: Encourage Peer Coaching

As mentioned above, peer coaching sometimes occurs during our meetings when progress is shared. Children become receptive to suggestions and even constructive criticism from their peers. During our pet project, Wayne and Crystal constructed a model aquarium out of a cardboard box. The group was very complimentary of the model, but when they later shared the written explanation of the model (a bulleted chart explaining the parts/functions of the parts of an aquarium), the children said it was a "little hard to read." Wayne and Crystal decided the lettering was too small; they started over the next morning, and in the end, it was much more pleasing to them and their peers.



*Figure 6. Alan explains to first-graders how the fossil game works; the game was designed and created by Alan and several other classmates during our rock project.*

Before beginning project work each day, the children record their plans in their learning journals. Each child has a partner who trades journals with him and reads the entry; when each partner is satisfied with the entry, they join others at the rug for the meeting. When the children are reading their partners' journals, I frequently hear comments such as, "You forgot your period," "I think you left out a word," "Maybe tomorrow you could begin your entry with something different; you've been starting it the same all week." One morning, a child politely told me that she couldn't read her partner's journal. I didn't even respond because they immediately began a conversation, and I noticed her partner erasing and rewriting in several places. When they were both satisfied, the child told me, "I couldn't read it so I helped her with some sounds in her words and now I can read it." They contentedly joined the rest of the group at the rug.

During project work, I am unable to help everyone at once. I encourage children to help each other. Perhaps a group of children is having difficulty with the construction of a model and someone can give a suggestion or lend a hand... Maybe someone needs a piece of tag board and can't remember where it is kept... Maybe someone is having trouble knowing what to do on the computer... One

day, a small group of children had decided to write a book using computer software. As we began to clean up for the day, I glanced at the computer screen, saw that the book was gone, and apprehensively asked the group, "Did you save your book?" "Yes," they replied, "Travis and Trevor showed us how."

## Listening

### Practical Strategy 8: Provide Opportunities to Listen to Experts

Proper listening etiquette is essential to bring the advantages of project work to children, including growth in literacy skills. What they learn while listening provides content that they write down in field notes, thank-you notes, and letters. The examples above show how listening to experts provides exposure to new vocabulary and experiences, as well as finding information. You can help children listen well by teaching them listening behaviors. Having frequent group meetings in the classroom offers practice in listening protocol. Before the children read from their journals, for example, they learn to ask for eye contact. When listening to others as they share progress on their investigations, children learn to wait until the peer presenter is finished before they offer comments and suggestions. When listening to experts, children expect each other to follow the same etiquette. These are all good ways to teach children how to listen.

### Practical Strategy 9: Provide Opportunities to Communicate Content Knowledge to Peers

As children formulate questions for investigation, interest groups begin to form. Children working together on a project communicate constantly. They must first accumulate data, whether from primary or secondary sources. Next, they need to organize the data. They must then decide which data they want to represent and in what mode. Upon deciding which mode of representation to use, they must then determine each individual's responsibility in the ongoing task (Figure 7). Communication in this fashion requires cooperation, consideration, negotiation, and problem solving.

### Practical Strategy 10: Provide Opportunities to Listen to Topic-Related Informational Books

I always wait until our current project is over before I read topic-related nonfiction books to the entire class. While they are in interest groups, working on subtopics of personal interest, I help



*Figure 7. As this group studied the local gas company, they decided to construct a model of the propane truck; Whitney and Anna worked on the front of the truck, while Haley tried to make wheels.*

them with their reading when they seek help. Otherwise, after the project ends, I might choose a book or two that I want them to hear, gather them together at the rug, and read to them. This way, they are always amazed at the new knowledge they have already learned from their own investigations and from their peers. When they recognize content information from the book that they have recently acquired, they are genuinely proud of their accomplishments!

## Conclusion

When engaged in good project work, the learning environment is not segmented into subject areas. Rather, the subject areas are interrelated, just as they are in real life. This is especially true when a teacher has a thorough understanding of the literacy knowledge and skills that children are required to learn and takes advantage of opportunities in the project to accomplish these goals. With knowledge and awareness of required curriculum and state learning standards, along with high-quality documentation, teachers can have confidence that children are applying countless basic skills while learning important subject matter during project work. Equally important, however, the children are being intellectually challenged, practicing social skills, and acquiring positive learning attitudes while applying these skills.

## References

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