

# Teaching an Interdisciplinary Unit on Shelter

Robert L. Stevens and Melanie Starkey

**A second grade classroom teacher and** a university professor of education decided to collaborate. Melanie wanted to find out if she could help her students increase their reading and writing comprehension by presenting a sequence of events in an activity (for example, the steps in building a house) and then have the students write the steps in proper order. Robert wanted to study whether the notion of “cultural universals” was a useful basis for developing lessons in the second grade in East Texas (as it had been in a Michigan classroom).<sup>1</sup> The purpose of this article is to describe how we went about this collaboration, to report our results, and to provide elementary teachers with instructional strategies for creating an interdisciplinary unit of study (involving social studies and language arts) on the topic of shelter.

## A Common Approach

John Dewey stated, “children view the world as new and they eagerly seek each new contact with every normal organ sense and motor activity, therefore wanting a chance to be active.”<sup>2</sup> He believed that children needed to be actively curious, be allowed to experiment in order to develop reflective thinking. There was no ground, in his understanding of human development, for the assumption that children of primary grades should be held to all work and no play. In order to develop habits of reflective thought, he also suggested that teachers should establish conditions that stimulate and focus curiosity and provide opportunities for students to make connections in the things they experience.

Both Melanie and Robert subscribe to the notion that the ideal learning condition is both playful and serious at the same time. “Students experience more excitement and curiosity and are more receptive to acquiring knowledge when learning was relevant, important, doable, and serious fun when it was

play with a purpose.”<sup>3</sup> Teaching a unit of study on the topic of shelter to second graders provided both of us an opportunity to observe students engaged in a meaningful activity.

## A Place to Begin

Before we began teaching the shelter unit to our students, we interviewed each student to determine his or her knowledge about the concept of shelter. Since one aspect of our study was to compare students in East Texas students with those in Michigan, we used the questions developed by Jere Brophy and Janet Alleman at Michigan State University.<sup>4</sup> Our students live in rural Texas, attend a school with an 85 percent free- or reduced-lunch program, and at the beginning of the unit, many of the students were reading below grade level based on the Rigby Literacy Test. The interview responses from our 23 east Texas students were similar to those of the Michigan students in that they revealed a limited understanding of the role shelter plays in society.

Our students did understand that

shelter is a basic need, could describe the formal aspects of different house types, and showed knowledge of certain norms (e.g., people need to pay for shelter). “However, they did not understand much about the historical, geographical, or cultural reasons for differences in housing styles, the economics of purchase or rental, or the mechanisms through which modern houses are supplied with utilities and conveniences.”<sup>5</sup>

## Regional Differences

When differences did occur in the responses of Michigan and Texas students, they seemed to be a function of actual geography and climate and a young person’s sense of place, rather than any other factors. For example, in the Michigan sample, snow is often listed as a reason to have shelter; Texas students on the other hand frequently cite tornadoes. A typical question and response set follows:

**Q1:** “Do people live in homes just because they want to, or do they need homes?...Why?”

“People need homes so they won’t be like out in the mud when raining or lightning when a big tornado or hurricane.”

The previous year, our Texas school and community had hosted students who had lost their homes in Hurricane Katrina.

When we asked our students about different types of historical homes (e.g.



Students discuss the historical, geographical, and cultural sources of traditional shelters.

pueblo, longhouses, tepees, and log cabins), students' responses were limited and inaccurate.

**Q2:** "Why do you think that some Native Americans lived in this kind of home (the longhouse) but others lived in this kind of home (the pueblo)?"

"Pueblo-have dogs and stuff. Long house—they have closets."

"More room to put stuff in (pointing to long house). Indians live in long house because it was long and Indians built pueblo because it was big."

Many of our students did not know about tepees, but those who responded to a question about the function of tepees missed the point.

**Q3:** [Show image of tipi.] "Some other native Americans lived in this kind of home. Do you know what it was called? Why do you think that they lived in tipis instead of other kinds of homes?"

"Indians had to live in there—cause that is the only thing they had to build because nothing else was around."

"They didn't have any other shelters."

Only one student understood the function of a tipi.

"Tent, cause they moved to live."

Brophy and Alleman made similar observations at the beginning of their study. Students "usually recognized differences in size, construction material, durability and general quality of Native American pueblos, longhouses, and tepees depicted in illustrations, but did not understand much about the historical, geographical, or cultural reasons for these contrasting housing styles."<sup>6</sup>

East Texas students had a better idea about log cabins, probably because they have seen many movies and television shows depicting the Old West. Most of the students understood that water came from lakes, ponds, or rivers, although a few thought that water came from sinks. Heat was supplied in a cabin by two methods; a fireplace or an open door if warmer air is outside. All of our students realized that log cabins were smaller than most of today's houses and were made from wood rather than brick, but only one student had a fairly accurate reason why this was so.

"They are made of wood 'cause they

lived in the woods."

### Urban Living

When we asked questions comparing house to apartment living, our students replied that they preferred to live in a house. This is not surprising, since only one of our students lived in an apartment, six lived in a trailer or mobile home, and the remainder lived in a house. Our students believed that people who live in apartments could not afford a house. These were typical responses:

"People live in apartments because they can't afford a house, but they can afford an apartment."

"Apartment—because they don't have enough to buy a real home."

Again, our student responses were similar to those given by Michigan students.<sup>7</sup>

After showing our students a picture of a tall apartment building in a city we asked,

"Why do you think they have so many big, tall apartment buildings in big cities?"

We had many interesting responses: "I don't know."

"To see over the top of everything... see the ocean and the whole city."



Only four of our students showed that they understood the relationship between population density and space. All four students mentioned that a lot of people live in a city.

In questions that asked students about utilities, our students initially showed little understanding.

**Q:** “Where does electricity come from?”

“There is a clicker thing,”

“You plug it in,”

“They have to use a flipper.”

“Put a light bulb or a candle”

However, most of the students knew that they had to pay for utilities. Although there was some confusion as where the bill was paid, it had to be paid or the electricity would be shut off.

Finally, our student’s responses were similar to Michigan students when asked about where they would like to live in the future. The student’s ideas about their ideal future homes reflected both their geographic and economic circumstances.<sup>8</sup> Their ideal homes reflected the children’s sense of place. Most wanted to live in a home, although one student preferred “a mansion.” They wanted it to be pretty, and most wanted to live in the country, except for one student who

wanted to live next to Wal Mart. Many of our students also listed living with their families as being very important.

### Teaching the Shelter Unit

Melanie interviewed her students during the first few days of school. This piqued their curiosity, inspiring them to ask questions about what they were going to study in second grade. Melanie overheard many of her students discussing this question with each other. Thus, the interview served the same purpose as an anticipatory set: students were excited to learn about shelter, and Melanie learned a lot about her students.

She conducted interviews over a three-day period. While she was interviewing individual students, the others were engaged in a variety of activities including work stations, paired assignments, and individual writing. Teachers who cannot afford this much time to interviews could read the interview questions to the entire class and discuss them as an anticipatory set.

We followed the unit of instruction on the topic of shelter as provided in *Social Studies Excursions*,<sup>9</sup> but also created additional instructional activities around three powerful social studies concepts:

1. Shelter reflects one’s relationship to the geographical landscape.
2. Shelter reflects one’s cultural values.
3. Shelter reflects one’s technological development.

We added several activities that we felt would help students reinforce these basics concepts. Students created a chapter book about shelter throughout the world, wrote a shelter story, designed and built a model house, and performed a play.

### A Shelter Story

Chapter 3, “Shelters around the World,” of *Social Studies Excursions* suggests that students read and discuss several books that describe different types of shelter. We extended this activity by asking students to write and illustrate their own books about one of six different types of shelter. The final books had to include a cover, table of contents, four to six sentences describing a type of shelter, and an illustration to accompany the description.

Melanie created book covers for seven different types of shelters in the shape of the shelter. The skyscraper is tall and long, the tipi is in the shape





of a triangle, and the caves and igloo are round like domes. Other shelters include a beehive hut, log cabin, and a modern single story structure. Our students selected their favorite shelter, researched its form and history, and wrote about it. Students completed this activity in their workstations. They were encouraged to use the books they had been previously read. This provided an opportunity for review and reinforcement, and a new opportunity to write about what they had learned. For instance they researched using *Up Goes the Sky Scrapper*, *Building an Igloo*, and *Shelters from Teepee to Igloo*. This activity reinforced basic concepts, reviewed vocabulary, and supported skill development in writing.

### Designing a House

Chapter 5, "Steps in Building a House," of *Social Studies Excursions* provided several opportunities for us to help our students become more proficient learners. Again, we followed the lesson, but extended it. First, Melanie read about the steps in building a house to our students. After the "read aloud" activity, the class discussed the different steps in building a house. This was followed by a shared writing activity. Each student

wrote in his or her journal, except that one student, selected by the teacher, wrote the steps in building a house on chart paper at the front of the room. After students completed the writing activity, they read the composed writing on the chart in choral fashion. Finally, they reread the book independently or with a partner.

### A Play to Perform

Our students looked forward to studying shelters each day. The activities captured their imaginations. One day they asked us if they could "do a play." A great idea we thought, but no one we know of had written a play about shelter. That was up to us. So teacher and professor spent one afternoon writing a play that would serve as a review of the unit and a creative activity for the class. We wrote seven scenes that touched on history, geography, and modern aspects of shelter.

There was a part for every student. In addition, we wanted our students to create the sets. Confronted with the limitations of space and time, we constructed three large sets that served as the background for the play: sets that featured an Igloo, Floating Boat, and a Teepee.

We built a 4×8-foot frame and stapled blue shelf paper across it. Each student cut out a snowflake; 23 snowflakes glued to the paper in the shape of an igloo completed the first set. The following day each student created a fish; 23 fish of various shapes and colors glued to a set resembling blue waves on a white background became our floating boat set. The third day, each student cut out a buffalo from a template and decorated it; 23 buffalo glued to yellow paper became the prairie set. The students each cut out a buffalo from a template and decorated it to complete the third set.

In front of the stage we added two more sets: a short stepladder served for our sky scrapper set, and directly opposite, a desk with a bell and two chairs became the Jeopardy game set.

We practiced, and practiced, and practiced. The play was performed in front of four K-1 classes and a group of excited parents. In spite of the dress rehearsal jitters (one student wanted to go home because he had a stomachache), the final performance was magnificent. Every student spoke his or her part clearly and with expression.<sup>10</sup>

Students work on their shelter reports.



## Reading Improvement

We wanted to see if reading comprehension would improve as a result of the varied activities presented to our students. Before and after the shelter unit, the students were tested using the Rigby Literacy Test, which is scaled according to the following levels:

Kindergarten	Levels 1-4
1st grade	Levels 3-17
2nd grade	Levels 15-22

Before the shelter unit, our students' scores covered a wide range, levels 7-28, basically at first through third grade levels. When the shelter unit was completed, the majority of students improved two levels, three students advance three levels (rising from 16 to 19, 17 to 20, and 17 to 20), and only two students advanced one level (from level 7 to 8). At the end of the unit, 17 out of 23 students scored above level 15, which placed them at grade level or above. The remaining students scored on the following levels (8, 9, 12, and three students on level 13). With the exception of math, which is taught independently, the shelter unit was interdisciplinary and was taught through out the day. Some improvement in scores might be expected simply due to the students gaining familiarity with the test format. However, it is our considered

opinion that the unit of study on shelters provided interesting reading material and activities that motivated students to improve their reading scores beyond what was expected at this point in the year.

## Conclusions

We learned several things from planning, teaching, and assessing this unit of study on shelter with second grade students. Even though all of our students live in a shelter of some type, they initially know very little about shelter. Second graders have limited knowledge of shelter types throughout the world, do not understand the relationship between the physical environment and how people adapted their shelter to fit into the landscape, and do not understand various shelters historically. The topic provides teachers excellent opportunities for instructional activities that teach about cultural universals. When we taught a unit on shelter using an interdisciplinary approach, we were pleased with the results. Our students improved their literacy scores on average by at least two levels and gained an understanding of cultural and environmental aspects of shelter. In an age of pressure to achieve well on high-stakes tests, we think we have arrived at a way of teaching that not only satisfies literacy requirements, but also teaches

students in a lively way about the social world in which they live. 🌍

## Notes

1. Jere Brophy and Janet Alleman, *Primary-Grade Student's Knowledge and Thinking about Shelter as a Cultural Universal*, (Chicago, IL: Spencer Foundation, 1999).
2. John Dewey, *How We Think* (Boston, D.C. Heath, 1933), 286.
3. Dan Rea, "Serious Fun in Social Studies for Middle Schoolers," *Middle Level Learning* 6 (September 1999): M2. Dan Rea and Robert L. Stevens were guest editors of that issue of *MLL*.
4. Brophy and Alleman, 1999.
5. *Ibid.*, 2.
6. Jere Brophy and Janet Alleman, "Early Social Understanding: What Do Children Know about Food, Shelter, and Other Cultural Universals," *Social Education* (November/December, 2002): 65.
7. *Ibid.*, 65.
8. *Ibid.*, 66.
9. Janet Alleman and Jere Brophy, *Social Studies Excursions, K-3* (Portsmouth, NH: Heinemann, 2001).
10. For a copy of the play, please send an e-mail query to Robert\_Stevens@uttyler.edu.

## Children's Literature

- Gibbons, G. *Up Goes the Sky Scrapper*. New York: Aladin, 1990.
- Selzer, U. *Building an Igloo*. New York: Henry Holt, 1998.
- Weiss, H. *Shelters from Teepee to Igloo*. New York: Thomas Y. Crowell, 1988.

**ROBERT L. STEVENS** is chair of the Department of Curriculum and Instruction at The University of Texas at Tyler. **MELANIE STARKEY** is a second grade teacher at Westside Elementary School in Jacksonville, Texas, and a doctoral candidate at Sam Houston State University.