



Technology as a Tool: Inquiry-Based Constructivism

Reflections on the Children's Picture Book Database at Miami University

HEDIR-AAHE Technology Luncheon



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Children's Picture Book Database at Miami University

Welcome to our academic website which gives teachers, librarians, parents, and students a place for designing literature-based thematic units for all subjects.

Our site offers you:

- abstracts of over 5000 children's picture books;
- search capabilities for over 950 keywords, including topics, concepts, and skills which describe each book;
- weblinks for keywords so you can integrate your up-to-date content knowledge with our picture book resources.

Enter your zipcode:

Enter a one word search or click [here](#):

WEBSITE

<http://www.lib.muohio.edu/pictbks/>



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Database



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[Children's Picture Book
Database](#).

Audience & Access



- Used by librarians, teachers, faculty, publishers, authors, and students from all 50 states and 7 foreign countries;
- To find story books on a keyword (known as a topic, concept, or skill) AND browse informational websites associated with a keyword;
- Is inclusive to all 8 academic disciplines;
- Accessed www.lib.muohio.edu/pictbks

Unique features



- Bibliographic database of over 5000 picture books organized by keywords to be searched in 3 ways: by discipline, by alphabetical order, and by Boolean.
- Each story book gets 10-15 keywords assigned to it beyond the 3 keywords used by the Library of Congress;
- Gives access to resources that combine picture books (story) with informational websites (theory) for educational outcomes.

Search the Children's Picture Book Database

You may use three different options when searching the database. The three searches are:

1. **[Keyword Search](#)**

Select a keyword from a list of disciplines (Areas of study).

2. **[Alphabetic Search of Keywords](#)**

Select the same keyword as above, but in alphabetical order.

3. **[Boolean Combination Search](#)**

Select from additional fields (e.g., author, publisher, date, abstract provider, etc.) or a combination of fields to limit your search.

WEBSITE

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- **Search Results for Community**
From the *Children's Picture Book Database at Miami University*
 - **Your Search for Community produced 269 items.**
To find the item in the Miami University Libraries, click on the title.
These titles may also be available at your local school or public library.
 - **For your convenience, results are split into 11 pages in groups of 25.**
 - **WebLinks are available to provide content information on Community.**
**** [Click here to view the content link](#) ****
2. Aiello, Barbara//Shulman, Jeffrey (1989). [Hometown hero](#). Frederick: Twenty-First Century Books.
- **Abstract: Scott Whittaker recounts the events between Thanksgiving and Christmas in his diary. He starts a karate club at school and meets Bill Walters, a homeless man who was the quarterback of the local high school football team in 1967. The book ends with questions and answers about asthma.**
 - **Abstract provided by Keith E. Rhoades, 1995 for the *Children's Picture Book Database at Miami University*.**
 - **Keywords: [\[Accomplishment\]](#) [\[Appearance\]](#) [\[Assertiveness\]](#) [\[Asthma\]](#) [\[Community\]](#) [\[Decision Making\]](#) [\[Diseases\]](#) [\[Exercise\]](#) [\[Football\]](#) [\[Friendship\]](#) [\[Holidays\]](#) [\[Karate\]](#) [\[Kindness\]](#) [\[Peer Resistance\]](#) [\[School\]](#) [\[Shelter\]](#) [\[Sports\]](#) [\[Surprises\]](#)**

Outline



- Cognitive development
 - Constructivist assumptions
- Database as a tool
 - Role of patterns
- Three inquiry-guided outcomes

Cognitive Development



- Concrete objects form our early schema for abstract thinking. By learning to name concrete objects, we develop the ability to form ideas known as concepts. Concepts are abstract representations.
- A person uses information to make meaning but *making meaning* is a cognitive thinking process. The data or information itself does not contain meaning.
- Each person's thinking constructs meaning from the information. Thus each person interprets meaning differently. Interpretation is an individual's *transaction* with the text.

Constructivist Assumptions



- Constructivist theory is built on the assumption that individuals construct (and interpret) personal meaning from information, situations, and experiences.
- Constructions of meaning form our conceptual thinking or concepts (and *mis-conceptions*).
- Learning is socially constructed and deconstructed. Thus, we need “significant others” to help us guide and clarify our misconceptions.

Role of Story in Theory



- Story books with human role models (serving as significant others) can help to guide and clarify our conceptions and misconceptions about life.
- Books provide us examples of how to do things and how characters think and interact with other people, places, and things.
- Social interactions modeled in books are one step removed from actual human interaction, but they are still ways for people to interpret life.

Communication forms language.



- When a child is young, some of the most significant learning occurs when parents and caregivers share conversations and interactions around books.
- A majority of early or emergent language development occurs in interactive sessions between two or more human beings communicating about a book (a concrete object that has an abstract, once removed story).
- But the real story may be the one that is happening in the interaction between child and caregiver.

Database is a tool.



- In my work using the database as a tool, I have “mined” three different elements:
 - Curriculum elements, e.g., topics, concepts, and skills;
 - Cultural elements, e.g., human race, ethnicity, gender, status, age, geography;
 - Language elements, e.g., words, pictures, numbers, body language, rhythm, and environmental cues.

An *elementary* developmental perspective



- During this time of repetition, multiple patterns have emerged for me through the concrete reading of over 5,000 picture books and viewing of multiple informational websites; and
- My interactions with many young people on how they learn and talk about books.

Role of Patterns



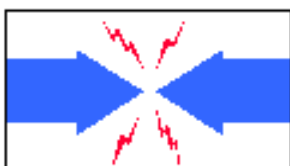
- Patterns are ways that something is organized.
- Patterns emerge for people through thoughtful repetition. People have to notice the organizational pattern or be encouraged to find a pattern. When they make sense of the pattern, they are learning!
- By engaging with multiple story lines in picture books, a reader can uncover patterns and make new interpretations about certain topics, concepts, and skills.

What are topics, concepts, and skills?



- They are elements of curriculum design;
- They are ways to organize information;
- They are schema that our mind uses to think about knowledge:
 - to know (e.g., topics and concepts)
 - to do (e.g., skills)

Example of Topical Keywords in CPBD@MU

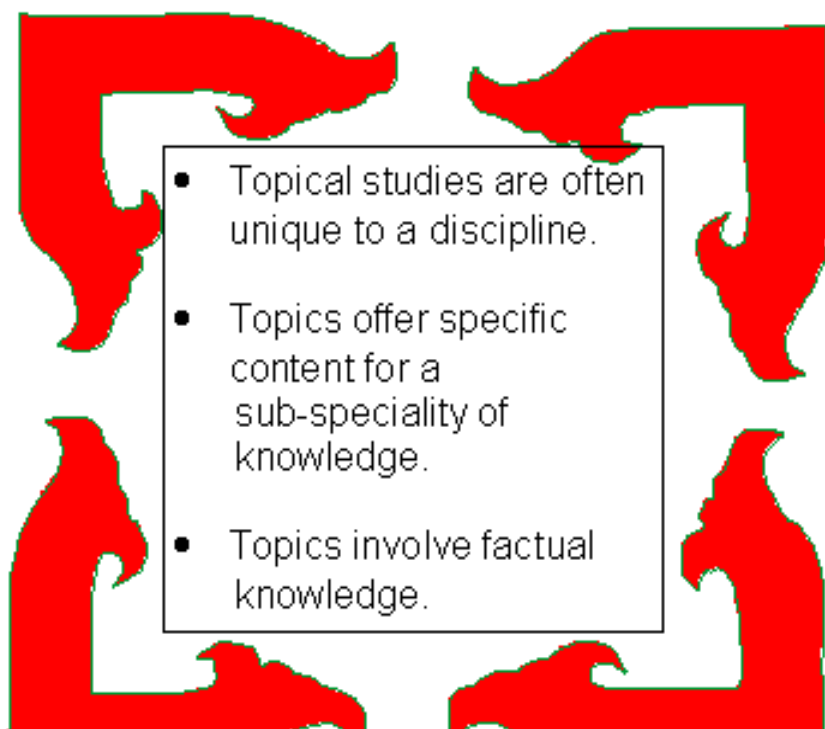


Topic (A type of declarative knowledge)

A body of related facts to be learned; they help to organize the content of a profession or a discipline.

Topical Keywords

Beach
Bicycle
Chinese
Lion
Opera
Picnic
Train
Volcano
Winter



- Topical studies are often unique to a discipline.
- Topics offer specific content for a sub-speciality of knowledge.
- Topics involve factual knowledge.

Example of Conceptual Keywords in CPBD@MU

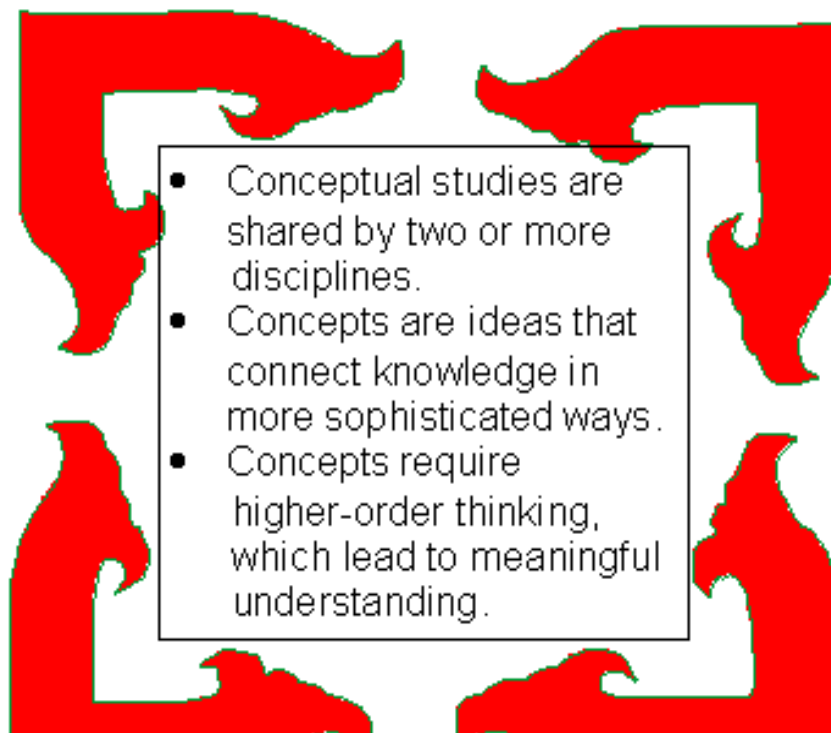
Concept (A type of declarative knowledge)

Abstract words that are broad, universal, and timeless; concepts help to bridge disciplines.

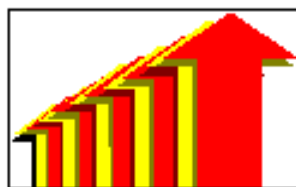


Conceptual Keywords

Aging
Celebration
Change
Conflict
Culture
Habitat
Moods
Nature
Rhythm



Example of Skill Keywords in CPBD@MU



Skill (A type of procedural knowledge)

An ability or proficiency that occurs through training or practice.

Skill Keywords

- Coping
- Decision-Making
- Jumping
- Listening
- Reading
- Running
- Skating
- Storytelling

- Skill development may be shared across two or more disciplines.
- Skills are often action words or activities.
- Types of skills include cognitive, behavioral, social, and psychomotor.

First Inquiry-Guided Outcome



- To increase our thinking about *health-related* topics, concepts, and skills found in books (and other texts);
- To have health education (and physical education, art, and music) be included more in the how elementary teachers implement the “whole” academic curriculum; and
- To write about my ideas in “Literature Links for Nutrition and Health” (Ubbes, 2000), the first integrated curriculum to use the National Health Education Standards.

Second Inquiry-Guided Outcome



- To teach new professionals to read a story for multiple perspectives;
- To find concrete examples of “wellness” in a storyline (by looking for physical, social, emotional, spiritual, and intellectual health representations); and
- To observe and find the abstraction of wellness in picture books within different cultural contexts, e.g., race, ethnicity, gender, geographic location.

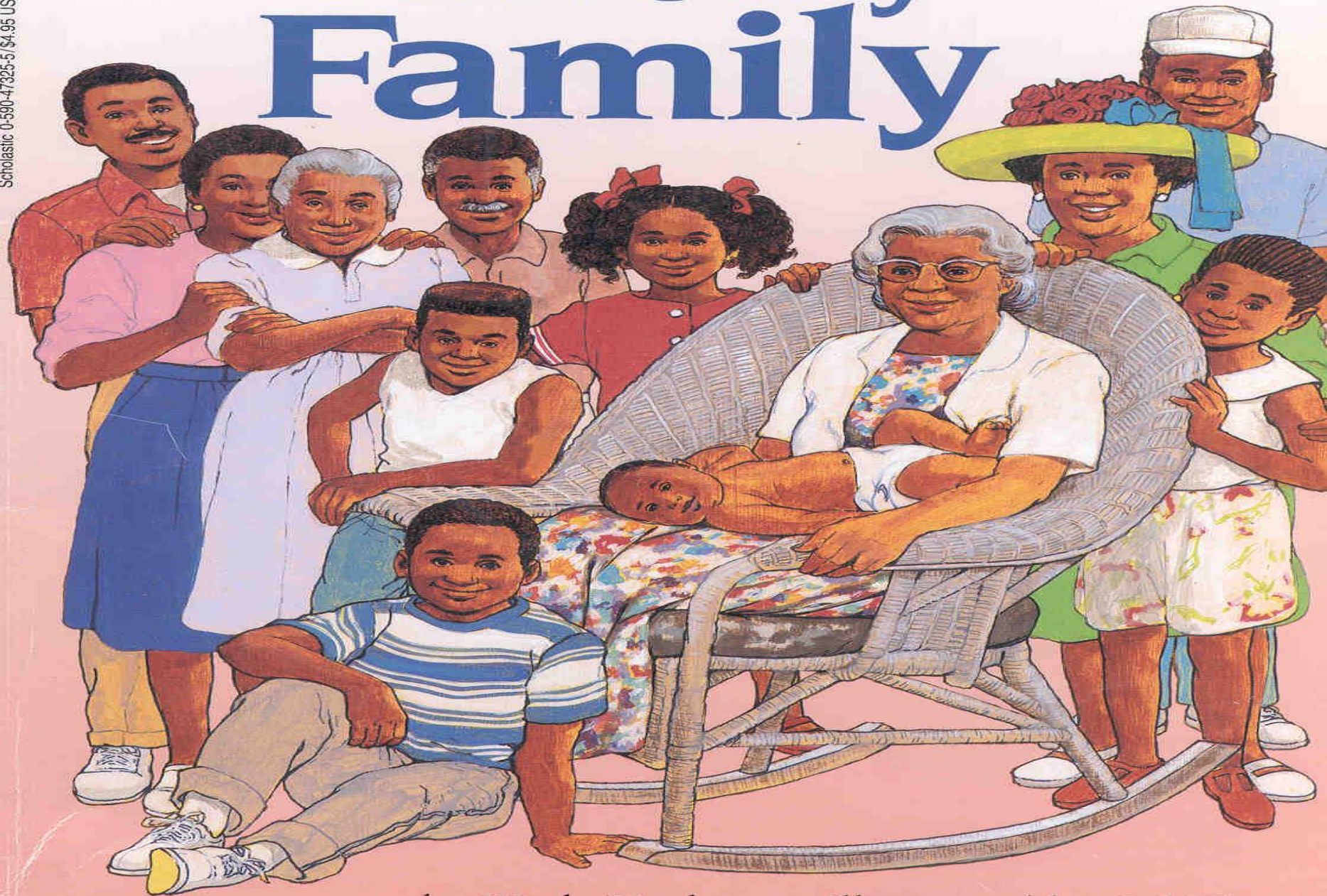
Sample Abstract from CPBD@MU



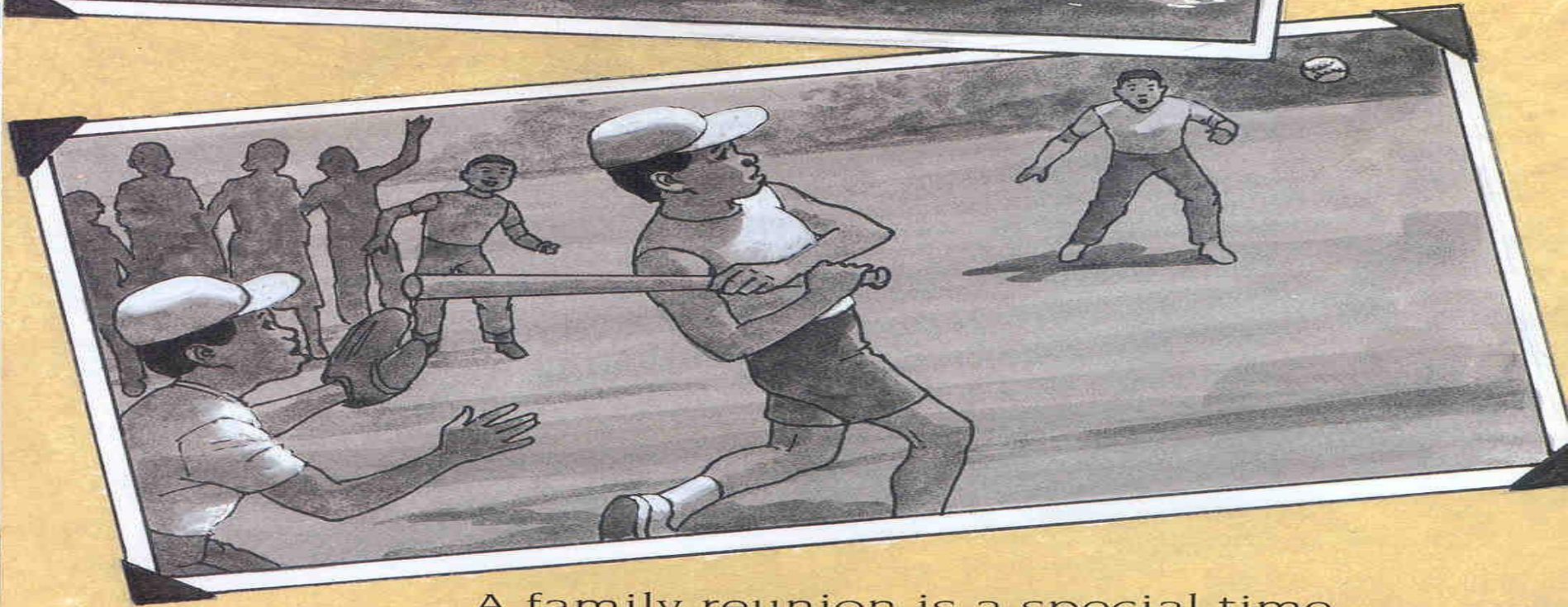
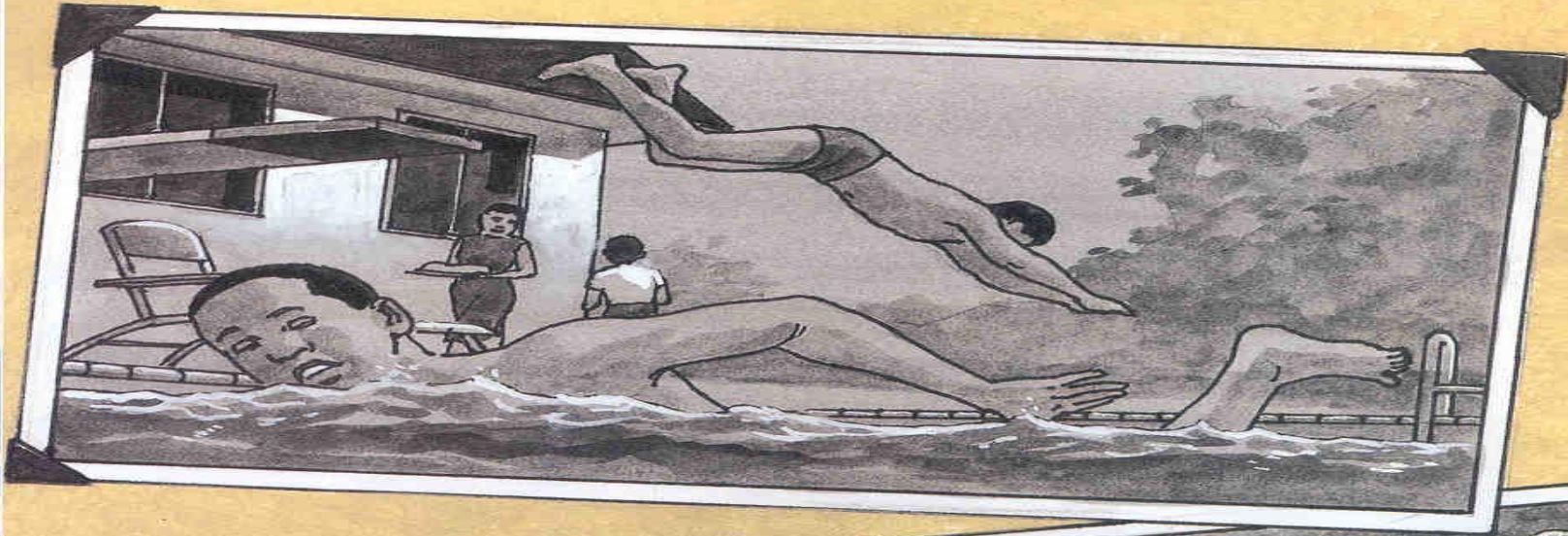
- 55. Hudson, Wade (1993). [I love my family](#). New York: Scholastic Inc.
 - **Abstract:**

A family takes a summer trip to Grandpa Lawrence's farm in North Carolina. The family enjoys laughing, talking, playing basketball, dancing and having a picnic together. Everyone hates to leave at the end of the week.
 - Abstract provided by Sarah Inglis, 1995 for the *Children's Picture Book Database at Miami University*.
 - **Keywords:** [[African American](#)] [[Family](#)] [[Food](#)] [Music] [[Multicultural](#)] [[Nutrition](#)] [[Picnic](#)] [Health] [Celebration] [[Storytelling](#)] [Reunion] [Dancing] [Basketball] [Sports] [Feelings] [Communication]

I Love My Family

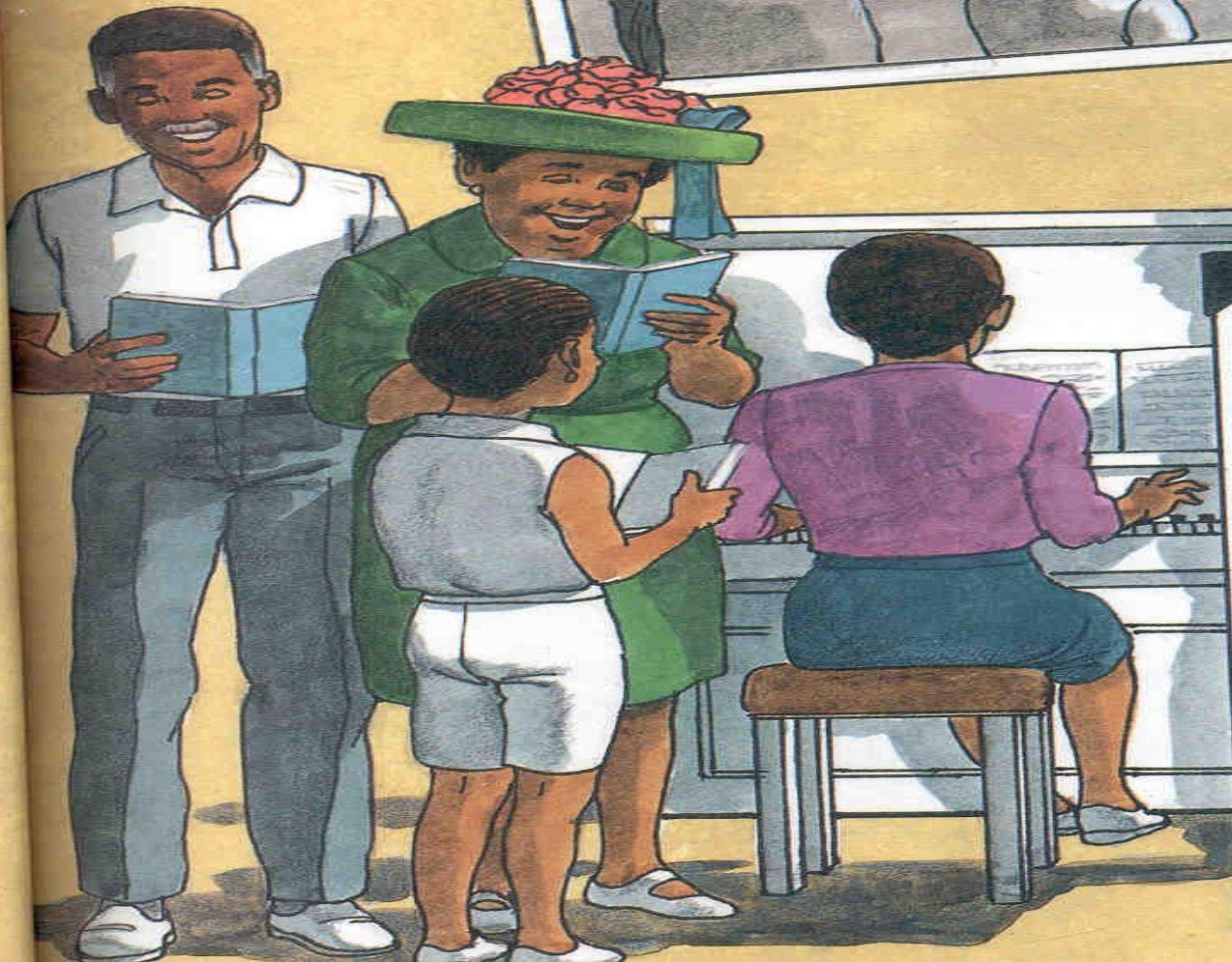


by Wade Hudson • Illustrated by Cal Massey

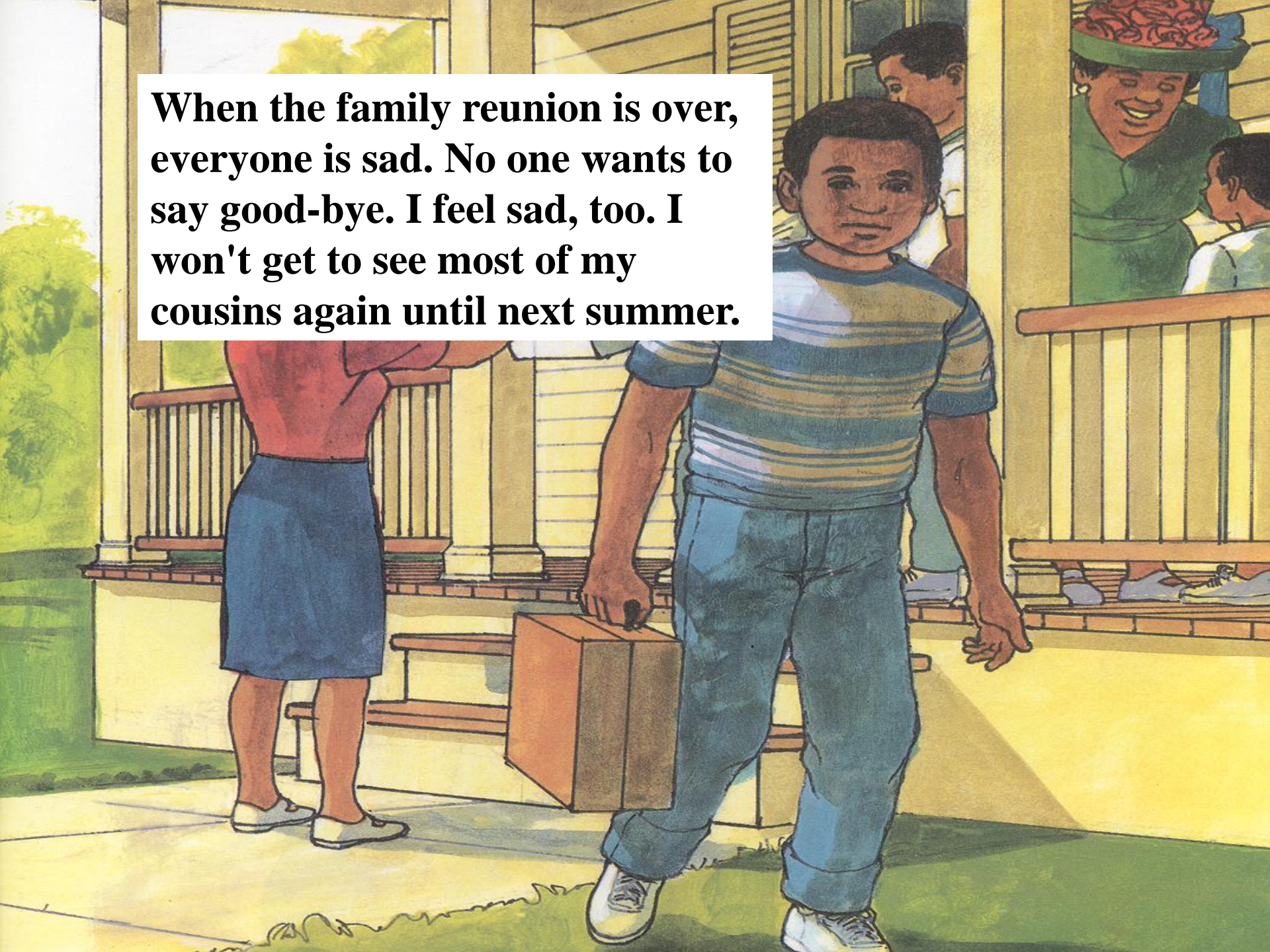


A family reunion is a special time.
It's a lot of fun, too. We go swimming.
We play ball. We pick peaches.

We sing.
And we dance.



When the family reunion is over, everyone is sad. No one wants to say good-bye. I feel sad, too. I won't get to see most of my cousins again until next summer.



Third Inquiry-Guided Outcome



- To probe deeper beneath the text into the subtext of the message (the story);
- To reflect on the elements of language that each person uses to interpret and make meaning from the story:
 - Words as language
 - Pictures as language
 - Numbers as language
 - Rhythm (and music) as language
 - Body mannerisms & expressions as body language
 - Environmental cues and nature as language

Ongoing Interest



- Learning as a dynamic pattern of multiple representations (examples);
- Picture books as an integrative art form;
- Picture books as an artifact of culture and their unique role and place in history.

Culminating Goal



- Technology as a tool of human beings
- Assists people to gain access to information but....
- Maximized through ongoing human interaction and communication
- Leading to personal and cultural transformations for a higher quality of life.

Role of Technology in Health Literacy



- Technology as a tool of human beings for giving people access to *valid and reliable information* through ongoing *interactions* (communication) leading to personal and cultural *competencies* (transformations) across the developmental lifespan.
- Health literacy is embraced by the concepts of education, health, and communication.

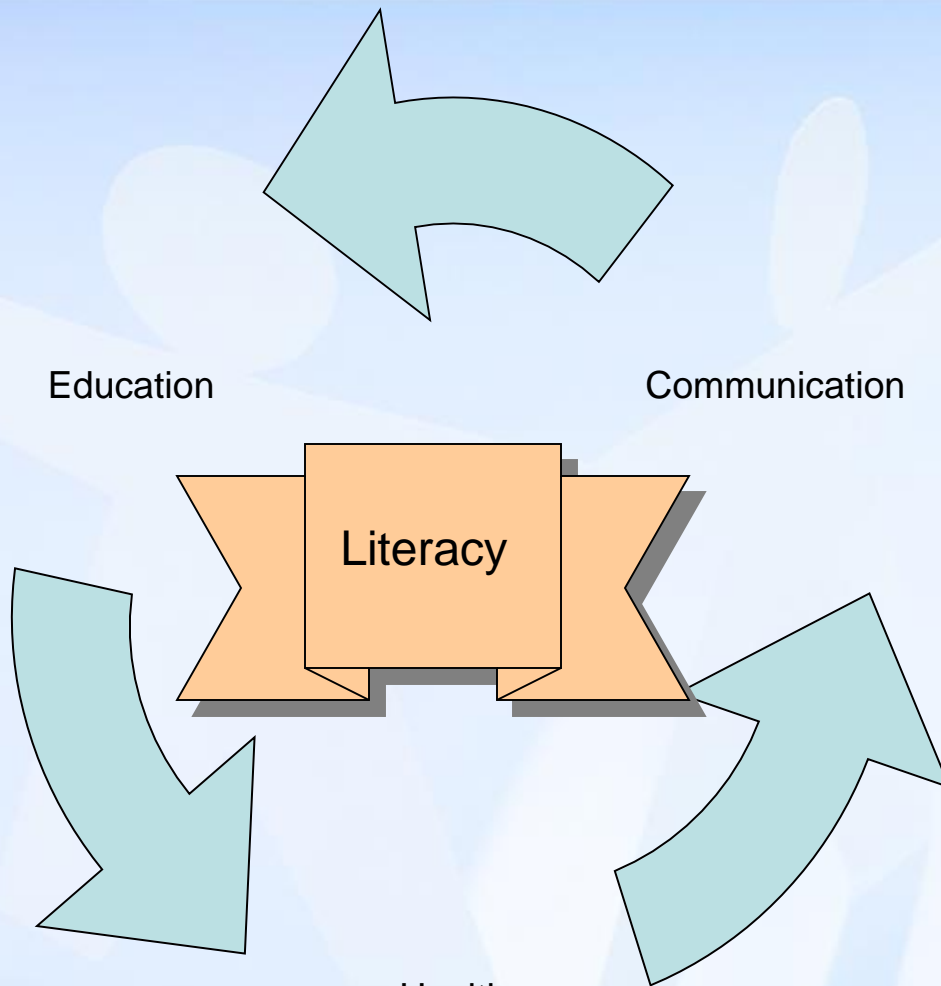


Education

Communication

Literacy

Health





Thank you!

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