It's All in the Game
Designing and Playing Board Games to Foster Communication and Social Skills

The child has
a hundred languages
(and a hundred hundred
hundred more)
but they steal ninety-nine.
The school and the culture
separate the head from the body.
They tell the child:
to think without hands
to do without head
to listen and not to speak
to understand without joy.
—Loris Malaguzzi,
The Hundred Languages
of Children

Young children draw on all their senses to engage
with the world around them, Loris Malaguzzi reminds
us. Known for articulating the Reggio Emilio approach,
Malaguzzi likens children's modes of learning to languages
and calls attention to the ways that schools may narrow
down children's "language" choices. Despite research
that documents the diversity of ways children learn and
express themselves (Eisner 1994; Gallas 2003), primary
education has become more focused on addressing early
learning standards than ever before. How might today's
teachers individualize learning experiences to support the
diverse ways children learn?

Even interventions intended
to help children can result in
limiting their opportunities to
communicate in their lan-
guage of choice. For example,
6-year-old Jennifer was repeat-
edly pulled away from art
time to attend speech therapy
sessions. Finally, she became
so frustrated that she refused
to attend a session. "I can't go
to speech because my art is at this time. I can't go until my
[speech therapy] time changes," she calmly announced.

How can educators ensure that Jennifer gets opportuni-
ties to develop her oral language and art? How can
teachers offer educational experiences that support the
many ways children communicate and learn while also
addressing early learning standards? In this article we con-

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Supporting the Many Ways Children Communicate

Consider the experiences of a first grade teacher, Kris, in meeting these challenges. Kris’s work with the children illustrates that there are ways teachers can address standards while also individualizing learning experiences to support the many ways children learn.

Exploring children’s modes of communication

During a science unit, Kris and her first-graders created a life-size board game focused on the children’s inquiry into the ecology of the rainforest. The game incorporated learning goals based on California state standards for art, language arts, and science in first grade. In constructing and playing the game, children expressed their understanding through oral and written communication about the rainforest as a geographic area and an ecosystem. They identified plant and animal life and the relationships between them. The children constructed understandings, and they expressed themselves and their knowledge through drawing, sculpture, painting, dramatic play, counting, speaking, reading, and writing.

At the time the first-graders engaged in this activity, Kris was part of a research team that explored the many ways children communicate, as resources for learning and teaching. The research group was a partnership between Collaborations: Teachers and Artists (CoTA; www.cotaprogram.org), a university-based teacher (Kathleen, the first author of this article) and two graduate students (research assistants) in education, and eight teachers (including Kris) from three elementary schools. Determined to design learning activities that would place children “at promise” rather than at risk, the team called itself the Contexts of Promise Group (CPG).

During the 10- to 12-week project, each CPG teacher met with Kathleen and a professional artist from CoTA for a 30-minute weekly planning period. The teacher and the artist collaborated to design instruction that would meet learning goals set by each teacher for his or her class, address appropriate content standards, and provide opportunities for the children to use multiple languages of self-expression and preferred modes of learning. CPG was guided by the question, “How might the tools of literacy and the literacy-making practices be changed to support the full participation of students with diverse cognitive, linguistic, and socioeconomic profiles in classroom instruction?”
CPG worked from the shared viewpoint that forms of literacy must be studied, taught, understood, and assessed as tools for participating in a given social or activity context (see review of related research in Rex et al. 2010). Theoretical and empirical work in this area argues that literacies must be viewed as multiple; that is, every social group makes use of different forms of communication and representation (Gee 2008; see discussion in Collins, in press). A multiple literacies perspective asserts that printed forms of academic or standard literacy are just one form of making and communicating meaning. For example, visual, graphic forms of meaning making (such as maps, flow charts, and illustrations) and physical, kinesthetic forms of meaning making (such as movement and dance) are all considered literacy practices.

In her initial planning meetings with Kathleen and CoTA artist Danielle (who is also one of the authors), Kris said she wanted to design a learning activity that would incorporate the visual arts. She had observed that the children were very focused during art time. Kris hoped that the activity would harness that interest so that it would carry over to reading and discussing books related to the activity topic. She emphasized that her class was physically active and enjoyed kinesthetic learning, which she often incorporated, along with music, to support literacy development (for example, when rhyming and identifying word family patterns). In addition, she hoped to create a sense of community in her classroom; several children seemed to be socially excluded on a regular basis.

After considering this assessment, Kris and Danielle decided that for Kris’s activity, the first-graders would create and play a life-size game that used the entire classroom as the playing board and children as game pieces. The children would choose the topic for the game. Creating and play-

The game format offered a range of opportunities for peer interactions, and the activity used play as a vehicle for children’s social and cognitive development.

Learning about games

Kris opened the activity by familiarizing the children with games—playing games with different formats and following rules. She focused on the books of Eric Carle because the children were fond of them and the books were written at an appropriate level for all the children in the class. The team felt that Carle’s themes would tie in with the state science standards. The first week, Jennifer read The Hungry Caterpillar aloud to the class. The next week, the children reviewed the book and created a master list of food items from the book and their own favorites. They drew pictures of the food for a whole-class memory game.

Week three brought a study of The Grouchy Ladybug and a child-developed card game called Go Grouchy Ladybug, based on Go Fish. Each child chose a character from the book and painted four matching cards representing that character to make the deck.

After playing Go Grouchy Ladybug, Kris introduced the idea of the children creating a life-size board game. The class explored a variety of board games and discussed the rules and ways of participating. The children then decided that their board game would be centered on the rainforest, which they had begun exploring during science. Kris offered many information books and storybooks to deepen their knowledge about the rainforest. Children could read to themselves and listen to books read aloud to them. Over the next five weeks, the children developed the life-size game, which they modeled on Candyland and dubbed Rainforestland.
Creating Rainforestland

The children worked in small and large groups during the design and construction of the game. Using the books about the rainforest, they researched wildlife and plant life. Based on their own interests, children volunteered to work individually or in small groups to create all aspects of the game. They created a deck of cards with colored squares that directed children to move forward or backward on the board a certain number of spaces. For example, if a player drew a card with two blue squares, her game piece moved forward two blue squares.

The deck of cards also included "traps"—cards with pictures of various pitfalls that held game pieces captive—and shortcuts that moved game pieces ahead. The children created a second deck of cards with questions related to their science learning that, when answered correctly, allowed the unlucky players to escape from the trap they had landed in.

For the game board, Kris laminated squares of colored paper based on rainforest colors chosen by the children. Danielle helped small groups of volunteers to form and paint papier-mâché masks of rainforest animals and insects to wear when playing the game.

With Kris's help, the children laid out the game to meander through the classroom. The path of colored squares marked the way. Traps included the Pit of Rainforest Vines (paper vines the children created), the Quicksand Crater (beanbag chairs in the reading area, surrounded by bookshelves defining the crater), and a nest of boa constrictors. Shortcuts such as the Waterfall and the Fallen Log allowed children to skip over squares and move ahead. Players worked together to answer questions about the rainforest to escape from traps.

The children decided to play the game in pairs—one child would be the player, and the other the game piece. The game pieces wore the papier-mâché masks. After drawing a card from the deck, the player directed the game...
The class worked together to develop a written set of rules for playing Go Grouchy Ladybug and Rainforestland. For each, the children brainstormed in a whole-class meeting. Kris guided the conversations and wrote the rules the children agreed to on the whiteboard. Here is an excerpt from the conversation about rules for Rainforestland.

Diego: Do not take cards from each other.
Michael: And don’t push the other tokens [the other children].
Cynthia: Take turns.
Alejandro: Don’t fight over dice.
Kris: What will we have, dice or a spinner? What do you prefer? Which will work best? (Multiple children chatter at once) Tell your partner next to you your choice and why. (Pause) Nick, what do you think?
Nick: It would be good if you spin it.
Alejandro: Maybe cards because they are easier to make. They can have numbers on them to tell you how many spaces to move.
Nick: Yeah, or the color. If you pick a card, you have to move to that color on the board.

The rule conversation took about 20 minutes and included a discussion about directions as well:

**Rainforestland Rules**
- No cheating.
- Take turns.
- Don’t push others.

**Rainforestland Directions**
- Pick a token.
- Roll a die to see who goes first.
- Pick a card.
- Move to your spot.

Later, the children added a fifth rule: “If you land in a trap, you have to answer a question.”

Drawing on their logical thinking skills, experience with games, and desire to maintain a positive social climate, the class discussed the rules. The written rules became an official part of the games. They were referred to and followed by the children in the class and by visiting classes that came to play Rainforestland.

Jennifer was a barely contained bundle of energy, excitement, and enthusiasm. Kris observed that Jennifer had difficulty gaining access to children’s social groups. She was eager to take charge of activities and tended to speak her mind. Her forthright manner sometimes interfered with her friendships. Jennifer was highly talented in reading, engaging with texts at approximately the fifth or sixth grade level, but she struggled with writing and, as noted earlier, received speech therapy at school. One of the reasons Kris was interested in games as a context for supporting learning was to give Jennifer opportunities to successfully engage socially with her peers.

Alejandro, a dual language learner whose home language was Spanish, was usually silent during classroom activities, although he occasionally volunteered answers in large groups. He was well liked by his peers and did not have social challenges; however, he struggled academically to keep up with his classmates. Kris believed this could be related to his reticence in class and to the pace of classroom activities. Alejandro’s preference for working slowly,
methodically, and quietly made it hard for him to demonstrate what he knew or could do. Kris felt that implementing the activity in small groups and over a period of time would support Alejandro's personality and learning style.

**Providing a context for positive social interactions**

During the game's design and construction, and while playing Rainforestland, Alejandro and Jennifer interacted more successfully with their peers than they had in the past. This seemed to be due to the structured roles and responsibilities the children assumed in creating Rainforestland. Children could choose the activities that suited them—painting a mask, cutting and pasting vines, or researching questions in informational texts—and each activity had a set of responsibilities.

For example, Alejandro took on the task of making the floor-size markers for the game board's traps and shortcuts. As a result, the children consulted him when creating the playing cards for these areas. Alejandro, usually hesitant to speak, gave his classmate Maria detailed instructions about layering and swirling blues and greens together to make her drawing "look like water that goes like this [swirling his hand], not a straight waterfall." Later, he proudly reported their progress to the class, volunteering that Maria had drawn the little card and he had drawn the big one. Alejandro's new role as the expert artist increased his self-confidence and feelings of competence, which then supported his participation in other learning activities.

**Offering children a variety of languages**

Creating Rainforestland provided many opportunities for children to choose when, how, and at what pace to express their ideas and knowledge. When the children were painting masks of rainforest animals and insects, Jennifer selected the butterfly. She gathered the materials—paints, brushes, and two books about the rainforest, opened to pictures of butterflies—at the work table and quickly began painting her mask. She talked the whole time she worked, to everyone and no one: "I'm going to paint it red on the sides. Butterflies can have spectacular colors! Unique. I can even make polka dots. I'm using purple too." Jennifer painted swiftly and enthusiastically and went on to begin a second mask (a macaw).

Alejandro sat opposite Jennifer at the table. He placed his paints in front of him and began to quietly and methodically paint a brown and black howler monkey mask. Both children were engaged and enthusiastic about their work, and because they completed the activity in stages, they could each work at their own pace creating artworks, the form of expression they were most comfortable with.

Alejandro's engagement in playing the game was another example of the opportunities the activity provided for him to practice his use of different languages. Alejandro was the player and his partner Margarita (also a native Spanish speaker) was the game piece, a toucan. Alejandro drew a card from the deck, looked at it, and announced, "Toucan, go to red." When Margarita didn't respond, Alejandro took the lead:

**Alejandro:** Toucan, go to red. Toucan, where are you?

**Margarita:** Oh (Looks up at Alejandro).

**Alejandro:** Toucan, go to red. (Points to the squares on the floor) Uno, dos, tres, cuatro.

Alejandro and Jennifer demonstrate two ways in which designing and playing Rainforestland allowed children to learn—speaking English or their home language and using their preferred modality, visual, oral, graphic, or print.

**Engaging children in meaningful reading**

Children spent a great deal of time exploring nonfiction books to get the information needed to create Rainforestland. They checked details and looked up facts.
How Multiple Literacies Support Children’s Communication

Multiple literacies projects support children’s communication skills by providing opportunities to

- Practice and reinforce academic English: Writing the rules of Rainforestland and creating the question cards and answering them while playing allowed the children to use their formal written and oral English skills.
- Practice and reinforce informal and home language skills: Children used colloquial language while developing and playing Rainforestland. Dual language learners could speak with peers in their home language and practice their emerging English skills.
- Build receptive language skills: Children listened to adults and peers read aloud stories and texts about the rainforest; they read and answered questions and responded to the answers.
- Develop social skills: Children engaged in turn taking, decision making, and negotiating in a structured environment with a teacher nearby to assist, if needed.
- Learn content vocabulary: Children expanded their science vocabulary while listening to the various children’s books read aloud, researching topics in non-fiction texts, and designing the game concepts. They learned art vocabulary while making the papier-mâché masks. Their spatial vocabulary and understanding grew while negotiating the game design and implementing the life-size game board throughout the classroom.
- Gain graphic communication skills: While illustrating the Rainforestland game pieces and character costumes, children expressed their ideas through pictures.

Creating and answering questions for Rainforestland was an effective way for these first-graders to express their understanding of the content, practice basic literacy skills, and use their new science vocabulary. The children wrote questions such as, “What is the most dangerous fish in the rainforest?” (piranha) and “What is the top layer of the rainforest called?” (canopy). Jennifer noted, “You had to know your rainforest facts pretty well, in case you got stuck in the boa constrictors!”

Providing authentic opportunities for conversations

Rainforestland gave children many opportunities to work collaboratively, and oral language played a key role in facilitating their work together (Berk & Winsler 1995). Having rules about turn taking scaffolded children’s participation. This was especially true for dual language learners like Alejandro, who had previously been silent, and for children like Jennifer, who were overly talkative and had difficulty “reading” social cues about turn taking in classroom conversations. Kris noted that “it was exciting to see those children who were normally resistant to participating in discussions using their understanding and knowledge to create a game that was interactive and fun.”

In addition, the introduction of game language, such as taking turns and tokens, and rainforest vocabulary, like piranha and canopy, scaffolded the learning of a number of dual language learners in the class. Exposure to new vocabulary through print, pictures, and movement took the English language from abstract sounds and definitions to personally meaningful words the children internalized through experience and engagement in a meaningful activity.

Conclusion

The children’s board game and rainforest inquiry demonstrate an “extended in-depth investigation” (Edwards, Gardner, & Forman 1998, 27). They allowed children to “express themselves through all of their available expressive, communicative, and cognitive languages” (p. 7). In designing the game, creating the playing board and materials, negotiating the rules, and playing the game, the children expressed their ways of knowing in a number of languages: visual, linguistic, logical/mathematical, spatial, and body/kinesthetic. Each child interacted with the material and used the acquired knowledge in a personally meaningful way.

All of the children benefited from the opportunity to express themselves in a variety of ways, including academic English (oral and written), colloquial language (oral), and graphic representation. As Kris noted, there were particular benefits for all from their engagement with books: “Because the children were the creators and stakeholders of this game, the text information took on new meaning. . . . The use of the arts in a visual and kinesthetic manner aided all the children in creating meaning from text.”

If you choose to plan a learning activity like this, we encourage you to start with the children. What are their strengths? What are their interests? How do they prefer to communicate? Then consider how you can work together to develop a multiple literacies project that fosters the many ways children communicate while also addressing early learning standards.
With careful planning and a minimal budget, teachers can design excellent learning experiences with many benefits. Materials for Rainforestland cost less than $50, but the rewards were worth far more: Jennifer found a socially acceptable voice with her peers and Alejandro demonstrated his knowledge to his classmates and to his teacher.

References


Language Arts.


