

# Chunks

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Two general approaches are used when teaching children to read music. One approach begins with symbols. Children are shown a staff and asked to memorize the names of the lines and spaces. They are shown pictures of quarter, eighth, half and whole notes and taught the correct names as well as the time-length relationships. The metaphor of a pie is often used to help children understand the relationship of whole pie (whole note), half pie (half note), quarter of pie (quarter note), etc. When children show they can identify all of these things, we then guide them to “read” the symbols and make a song. This might be called a symbol-to-sound approach.

The second general approach begins with a song. The teacher teaches the children a simple song, often with only two or three different pitches. After children know the song, they learn how to notate the pitches and rhythms on the staff. This approach might be called a sound-to-symbol approach.

In both cases, the process teaches a single symbol for a single sound. This one-to-one relationship of sound and symbol will hopefully lead to fluent reading after much practice. But fluent music readers, just as fluent language readers, do not decode one symbol at a time, but rather read symbols in chunks. At some point, advanced music readers must unlearn the skill of reading one note at a time. Of course, it is important to be able to decode single-symbol-to-sound, but it may not be the most developmentally appropriate place to begin. Is it possible that learning to read one note per one sound may not be the most efficient way to learn to read music?

Researchers who have studied children’s invented notations, Bamberger (1982, 1991) and Davidson and Scripp (1992) are two good examples, find that young children’s written symbols represent structural chunks, or groups of sounds rather than individual sounds. These studies and others suggest that children perceive music sounds in groups rather than as individual tones. Is it possible that learning to read one note per one sound is contrary to the way children make sense of music sounds?

In her informative book *Proust and the Squid: The Story and the Science of the Reading Brain*, Maryanne Wolf outlines a history of symbol writing/reading, beginning with petroglyphs, cuneiforms, hieroglyphics and other picture symbol writing which used pictures or symbols for whole words or ideas. It was not until hundreds of years later that the modern alphabet emerged where a symbol is used for each vowel and consonant sound (one-to-one symbol for sound). Is the historical development of symbol use a macrocosm of individual development regarding use of symbols?

Is it possible that whether teaching from symbol to sound, or from sound to symbol, the one-to-one sound/symbol relationship may not be the most effective way to begin teaching music reading?

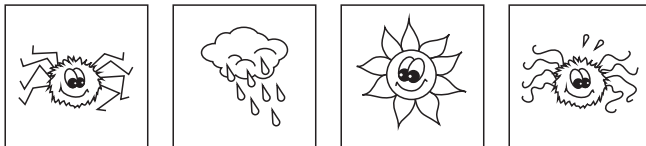
We discovered children’s fascination with reading symbols for chunks of sound by observing children in our two- three- and four-year-old early childhood music classes. It all began with take-home song cards given to children, inviting them to use the picture song cards to “teach” their families at home the songs they learn in school. Each of four (or more) cards contained pictures representing a section or phrase of the words in the song. The challenge for the children was to place the cards in order then sing the song. Children were encouraged to touch each card as they sang, in order to physically reinforce (1) left-to-right tracking, (2) the meaning of the words and (3) the feeling of music phrases.

Copies of the song cards were not only sent home, but also placed in a center to motivate children to sing by themselves during free-play time. The Song-Card Center became one of the most popular places four-year-old children went to play.

### Exploring Chunks of Sound Using Icons<sup>1</sup>

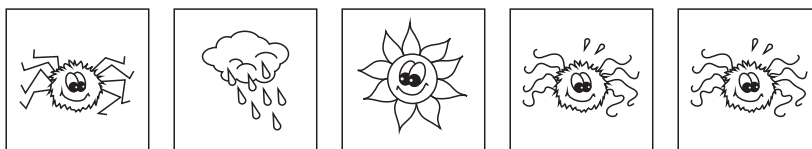
Following is an example of the procedure from song to creation, using the song “Eensy Weensy Spider.”

- 1 Teach the song to the children using the finger play actions.
2. After the children can sing the song, (We did our work with four-year-olds who could sing the song alone) display icons of chunks of the song. For example:

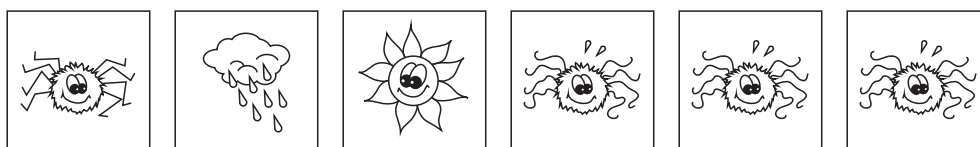


Invite the children to sing and “read” the song as you point to the pictures.

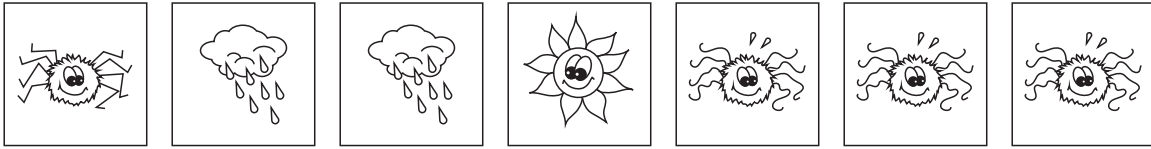
3. Invite one child to point to each picture and sing, or to lead the class to sing and “read.” Consider having the child use a rhythm stick or chopstick for a pointer. Allow other children to point and sing. As individual children point to each picture, you can determine which children are connecting the song with the symbol and which are just arbitrarily pointing.
4. After children have “read” the song a few times, add another copy of the last picture (“and the eensy weensy spider went up the spout again.”) Ask the children how they might sing the song with the extra symbol. Most will know immediately to sing the last line two times.



5. Add one or two more pictures of the last phrase as children sing, changing the song each time.

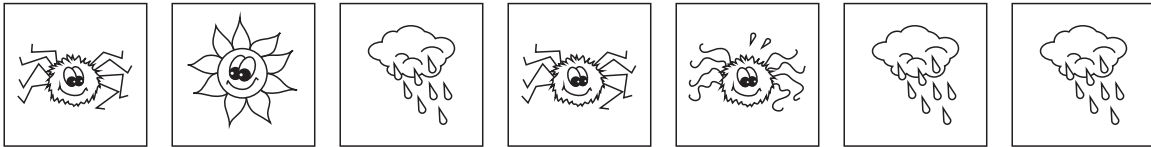


6. Next add another symbol of any of the other song chunks such as “down came the rain and washed the spider out.”



Enjoy reading the new song with all of the changes. Continue playing with the “reading” exercise for as long as children seem interested.

7. A few days later, after children demonstrate success, in step six, try mixing the order of the symbols. For example:



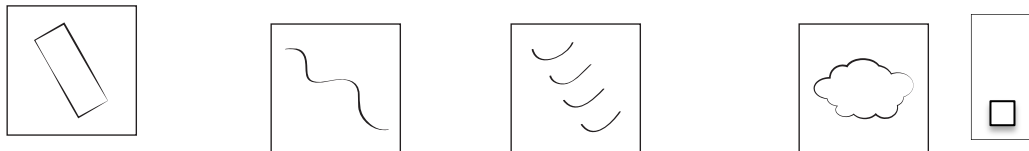
8. Place the song chunk icons in the play space for children to explore independently. Observe how the children sing and “read.”

Repeat the process with other songs such as “Are You Sleeping,” “Scotland’s Burning,” “Frog in the Meadow,” “Pop Goes the Weasel,” “Teddy Bear,” “Twinkle, Twinkle Little Star,” “Who’s That Tapping at the Window,” etc. For more information on use of icons with songs, see Kenney (2012 and 2012b).

**Exploring Chunks of Sound Using Ideographs<sup>2</sup>**

Ideographs<sup>3</sup> have also been explored in our pre-kindergarten classes. Following is an example of ideograph reading for “Row, Row, Row, Your Boat.” The procedure is the same as the example above.

After the children know “Row, Row, Row Your Boat,” display the following symbols for chunks of the song. Point to the symbols and sing, demonstrating what each symbol represents.

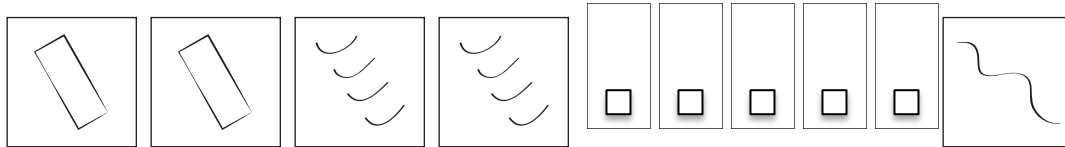


Row, row, row your boat, gently down the stream, merrily, merrily, merrily, merrily, life is but a dream.

As with “Eensy Weensy Spider,” invite individual children to point to each symbol as the class or the individual sings the song, thus giving individual children opportunity to sing and “read.” At some point, add an extra “dream” symbol, then another and another. Each

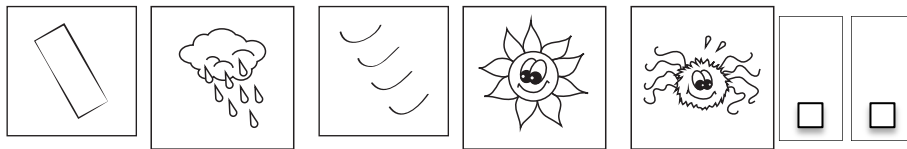
time, invite a child to “read” the new version of the song. Add more ideographs and let individuals or the class “read.” Place the cards in the free play space for children to explore on their own. Observe and learn from the children as they play.

On another day, when children are ready for a new challenge, add the challenge of mixing the symbols and reading, then place the ideograph cards in the free play space for children to explore on their own. Allow plenty of time for children to master each challenge.



**Serendipity!**

Often song cards for more than one song were left in the play space. To our surprise, some children began mixing the cards and thus the songs. We were surprised to hear that the children not only sang the words correctly, but four-year-olds showed ability to maintain the tonality and sing with accurate pitch as they switched from song to song.



We wondered what would happen if we began to substitute traditional music symbols for some of the ideograph cards. We invited the children to read the following as they sang:



The children read the song with ease, and wanted to manipulate the pictures as before.



The children were not reading the individual notes, but they seemed to quickly grasp what the group of notes represented. In the future, we hope to work more with substituting traditional notation for arbitrary symbols to see if indeed reading in chunks leads naturally and easily to reading and understanding traditional music notation. For other examples of ideograph use with young children, see Kenney (2013) and Bennett.

Wolf states that “reading is the use of a form of symbolic representation, in which things can be symbolized by marks for the eye.” Reading icons and ideographs certainly fit this definition of reading. We are convinced that reading chunks of sound is developmentally appropriate for young children because of their interest in the process and the accuracy of their reading. In our efforts to teach children to read music, would preceding one-note/one-sound teaching with chunk teaching help more children feel success with reading? Would the learning of traditional music reading be easier?

We invite teachers of young children to try some of these ideas and to let us know how they work for you. Please contact the author to share your experiences at [susan\\_kenney@byu.edu](mailto:susan_kenney@byu.edu). Enjoy the play!

## **Footnotes**

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<sup>1</sup> Jerome Bruner used the term “icon” to mean a literal symbol for something. A picture of cat would be an icon for the real cat. Bruner suggested that this iconic step was necessary before asking children to understand abstract symbols that represent the real thing. The letters CAT would be the abstract symbol for the real cat. Bruner’s use of icon referred to word meanings. Building on Bruner’s work, Boardman created icons for music *sounds*. For example a long sound would be represented by a long horizontal line, short sounds by short lines. Pitches would be represented by marks representing high and low on the page with or without a staff. Boardman’s work continued the use of one sound/one symbol and may be the next logical step after exploring song chunks.

<sup>2</sup> Mary Helen Richards used the term ideograph to describe an arbitrary symbol (as opposed to an icon) agreed on by the teacher and children that is used to represent a section or chunk of a song.

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