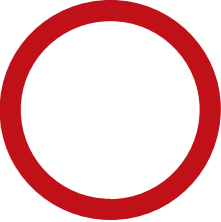


ENHANCING READING COMPREHENSION:

Sabah Schoolchildren Use *Puppets* and *Scripts* to *Learn* *English*

BY TAMARA RANDOLPH

This article reports on a study done by the author, who used scripts and puppets with students in a Seventh-day Adventist school in Sabah, East Malaysia, to discover what kinds of materials might help students learn English terminology for science and mathematics tests.

 In a tour of Seventh-day Adventist schools in Sabah, East Malaysia, in the fall of 2005, I found that they needed more engaging materials to help students learn English terminology for science and mathematics tests. In addition, the teachers were asking for puppets, one of the area's traditional art forms,¹ to motivate the children to learn English.

Upon returning to the U.S., I searched for realistic animal puppets to use with natural-science scripts. In my curriculum and instruction classes at Walla Walla University in College Place, Washington, I introduced script writing as a class assignment. My students researched facts about birds, insects, or animals and then wrote engaging scripts during writing workshops. Throughout the next school year and summer, we created 25 high-interest reading/listening centers complete with puppets, scripts, and audiotapes. I made plans to return to Sabah the next fall to determine whether using puppets with written and audiotaped scripts would increase Malaysian students' reading comprehension in English. A second, related question was whether use of these scripts would increase student recognition of high-frequency English words that can account for as much as three-fourths of all written English text.²

Materials and Methods

The 25 puppet scripts for the reading/listening centers that were written, edited, and recorded for this study each contained a minimum of seven scientific facts. Scripts were each about three minutes long, had a reading level between 1.5

and 4.5 (1st year, fifth month to 4th year, fifth month) on the Flesch-Kincaid scale,³ and included at least one human in addition to the animal. Fantasy was minimized; if the animals, insects, or birds talked at all, they had to confine their conversations to factual information. Puppets, chosen or designed for realism, included sock, stick, felt, paper-plate, and purchased hand puppets. Potentially problematic vocabulary terms were defined or illustrated in a section entitled "Words to Know."

For pre- and post-testing the students, I selected a reading comprehension test, the *Woodcock Diagnostic Reading Battery*.⁴ Since there was no known English-language reading-comprehension test that had been normed on Sabahan students, this particular one was chosen to establish baseline scores for experimental and control groups. The study would also include videotaping and journaling.

When I returned to Sabah, the "Land Below the Wind," a year after my first trip, Pastor Konis Gabu, the educational director for Sabah Mission, helped me stock up on school supplies and grocery staples such as bottled water, peanut butter, crackers, and soy milk. After a good rest at Tamparuli Mission headquarters, I rose early for the four-hour-long trip

to Wild Mango School.⁵ Pastor Gabu drove; his son, Lemuel, a college student on vacation, rode along. When we got to Kota Marudu, we picked up extra audiotapes and more school supplies; later, bananas, tarap (a fruit with a sticker-brush exterior and pure creamy delight inside), and coconuts were added to the supplies.

The last stretch of road was bone-jarring, but the scenery was spectacular. At one point, we could have been riding on the surface of the moon, with scorched-looking rock formations all around us. We came to a river that completely swal-

lowed up the rudimentary road and covered the wheels of our vehicle. Pastor Gabu expertly twisted the steering wheel, and the vehicle emerged from the water onto a tiny two-wheel rutted track that led straight up the mountain. At that point, we left all vestiges of civilization behind, seeing no more telephone or electrical wires.

Finally, we arrived at Wild Mango School, way up on the top of a high hill. Several children came running to meet our vehicle, along with three of the four teachers at the school. Mr. B was the headmaster and K-4 teacher. Teacher A taught

Research Supports Use of Puppets to Help Students Learn Morterical

In the research literature, I found seven studies where puppets had been used similarly with native-English-speaking young children, primary students, and highschoolers. Another set of two studies using puppets with non-native-English speakers and two seminal studies without puppets were judged to be relevant.

Thomas Yawkey's report from a year-long study in 1979 showed that 5-year-old native-English-speaking children learned and recalled language more effectively when they used puppets during play.⁶ Later, Elaine Andersen's research with 3- and 4-year-olds showed that they exhibited surprising sophistication in terms of topics, vocabulary, syntax, and prosody as they spoke through puppets to represent a doctor, nurse, teacher, students, or family.⁷

In the early 1990s, Sandra Bidwell, a reading teacher utilizing regular puppet performances with at-risk students from low-income families, found that fluency and reading comprehension increased as students reread scripts.⁸ Later in that decade, Garrett, Busby, and Pasnak used toy horses and hand puppets to successfully teach 4-year-old Head Start students unidimensional classification and seriation in a quasi-experimental study.⁹ Around the same time, Diane Szarkowicz found that young children ages 38 to 63 months were significantly more able than control subjects to determine false beliefs after they had participated in a story with finger puppets and dramatic action.¹⁰

In the early 21st century, Sharon Peck and Aubre Virkler reported on 2nd graders' increased comprehension and fluency from rereading self-created and self-produced puppet plays,¹¹ while in Pamela Myers's classroom, use of puppets with four kindergarten students for a school year greatly increased their ability to analyze, summarize, question, and predict.¹² Ruth Bennett worked in a Sebastopol, California, high school with shadow puppets to teach culturally authentic Hupa text. This study concluded that puppets and texts supported goals of academic discourse development and more proficient reading

in the target language.¹³ Puppets in primary-school science classes in the United Kingdom engaged children in the science process, drawing in those who were shy, motivating children to learn scientific vocabulary, and giving practice in using reasoning versus asking questions about process alone.¹⁴

Puppets were also used successfully with non-native-English speakers, as shown by two studies that examined the use of puppets with students who were either studying English¹⁵ or learning important health information in their native language. In the latter category, Juliet Millican, after using rod puppets and stories to teach literacy classes in Senegal, reported that students were more amenable to discussing difficult cultural topics when puppets were used.¹⁶

Although a 1992 study by Susan Neuman and Patricia Koskinen did not utilize puppets, they found that significant increases in vocabulary knowledge and conceptual science information occurred in an experimental group of English-language learners in the U.S. while they viewed closed-caption television programs.¹⁷ I inferred from these studies that viewing text while listening to the same text presented in aural format could provide contextual support, especially when opportunities to rehearse the script with attractive puppets were systematically included.

Lesley Mandel Morrow, Michael Pressley, Jeffrey Smith, and Michael Smith studied the effects of using literature to teach science. The groups where literature was used both in literacy and science programs showed significantly better achievement than (1) groups where literature was used only in the literacy program and (2) control groups where science and literacy were taught using basal texts and worksheets.¹⁸ In discussing their results, Morrow, et al. referenced Jerome Bruner's theory of paradigmatic versus narrative ways of thinking,¹⁹ suggesting that both modes were encouraged in experimental groups where literature was used in the science program. This thesis was borne out by my own research in mainland China.²⁰



Paper bats on sticks flapped their wings nicely and even spit out real fruit seeds when it was time in the puppet play to plant more trees.



Students waited patiently for their turn to fly the bird puppets at a Saturday-night meeting at the school. With no electricity available, a flashlight and camera flash provided the only light.

K-6th grade Bahasa Malaysia (the national language), math, and English. Teacher H taught the 1st and 2nd grades and 4th- to 6th-grade geography. Mr. D taught the 3rd- and 4th-grade math classes, 3rd- to 6th-grade science, and 4th- to 6th-grade living skills. All of the teachers taught Bible. The school convened from 7:30 a.m. until 1 p.m., with a break at 10 a.m. for breakfast. Nearly 50 students attended the school, counting the 6th graders, who would not be in attendance until September.

The teachers' quarters were lined up in one long building on a concrete pad, standing on ground a bit higher than the school. The school rooms were in an "L" shape with a breezeway where the two parts of the "L" came together. There were many windows with glass louvers on both sides of each classroom; I could see and hear the children playing in the rooms from sunrise until school began and after school until dark.

The next morning, the teachers brought 10 students who were to undergo pretesting for reading comprehension and word identification. However, there was a glitch. A terrific storm came up during the time the tests were being conducted in the breezeway between the classrooms. The drumming of rain on the metal roof drowned out even shouted conversation. All school activities ceased for the duration of the storm; we all just stood by the windows looking out. Evidently during this commotion I lost track of the fact that one student did not finish the reading comprehension test. I did not discover this until I had returned to the United States and was analyzing the data.

After the storm, I finished testing the students; then randomly selected five experimental group members and five control group members by drawing the numbers 1 to 5 or an "x" out of a plas-

tic cup. Experimental members received Malaysian names for numbers 1 to 5—E-Satu, E-Dua, E-Tiga, E-Empat, and E-Lima. Control group members were 6 to 10—C-Enam, C-Tujuh, C-Lapan, C-Sembilan, and C-Sepuluh.

Each of the seven days I spent at Wild Mango School, except for Sabbath and Sunday, I had the experimental group members read their scripts while listening to the audiotaped

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script, practice with the puppets, and then present to other students. I had the control group listen to stories read in English and make engaging crafts.

Results

Throughout the week that I spent at Wild Mango School, I observed what I have come to call “the shining-eye syndrome.” The children’s body language showed strong interest; their faces were animated. When they read, they focused exclusively on the text, and their eye movements tracked appropriately, matching the taped reading. Movements or noises in the classroom did not appear to disturb them. They wore headsets, which helped to block ambient noise, but their focus kept them on task. They presented their scripts to their classmates with a fair degree of confidence.

The experimental group post-test scores, on average, showed more growth than would be expected, given the psychometric principle of scores tending toward the mean on retesting. The average standardized score for the experimental reading comprehension pre-test was 412, while the post-test score average was 427. This was a gain of 15 points in seven days (see Appendix A, top chart).

The control group students participated in distracter activities that did not provide the extra benefits of listening to language while seeing it in print. Furthermore, they did not get the rereading opportunities that have been found to be effective in raising fluency and reading comprehension.²¹ Additionally, they did not have the kinesthetic advantages of handling technology or highly textured puppets.

Of the control group members who had pre-test and post-test scores from the Woodcock Johnson exam, only C-Sepuluh’s comprehension score went up—from 430 to 436. The average standardized score for the reading comprehension pre-test among the control students was 419. Their average post-test score was also 419. In other words, this group showed no gain in comprehension.

The experimental group scores improved in word-recognition skills, while the control group scores decreased. These findings, however, do not appear to differ much from the expected pre-test-to-post-test regression toward the mean (see Appendix A, second graph).

During the study, I was able to interview one child from each of the two groups for a photo essay about them. After I returned to the U.S., I used a publishing program to prepare small books based on this material, sending copies back to Wild Mango School so the children could have their very own books about themselves.

Suggestions

A follow-up study in a larger school in Sabah gave even more support for the methodology. Although the small sample



The pig puppet, which had three really ugly parasite puppets attached to its interior, generated a lot of laughter.

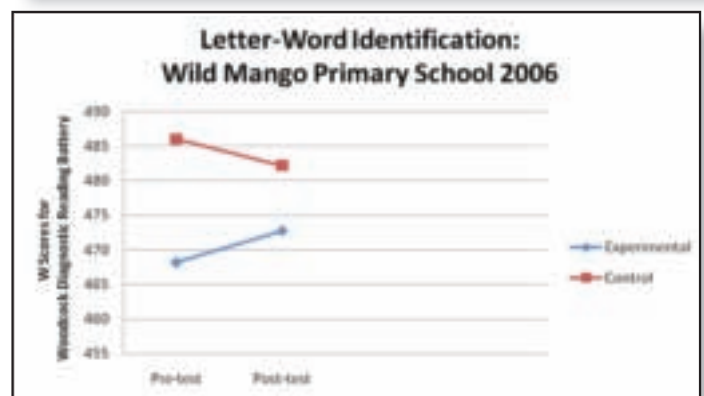
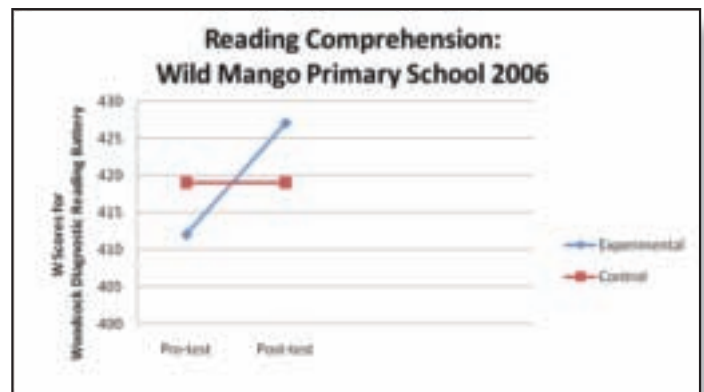
at Wild Mango School does not allow for generalization, it appears likely that the academic use of puppets and personalized books could be of value for teachers with second-language learners. ✍



Tamara Randolph, Ph.D.
(Specialist in International Literacy Education and Sociolinguistics) is an Associate Professor of Education at Walla Walla University in College Place, Washington. She has taught at the elementary and secondary levels and worked in special education. She holds a Master’s degree in reading.

This article has been peer reviewed.

APPENDIX A



REFERENCES

1. Mohd Sharif Mohd Saad, “History, Dreams, and Reality: Storytelling Programs in Malaysia.” Paper from the 22nd Annual Conference of the International Association of School Librarianship, Adelaide, South Australia, September 27-30, 1993, ERIC Document 399 937.
2. Camille Blachowicz and Peter Fisher, “Vocabulary Instruction.” In Michael Kamil, Peter Mosenthal, P. David Pearson, and Rebecca Barr, eds., *Handbook of Reading Research* (Mahmeh, N.J.: Erlbaum 2000), pp. 503-523.

3. John Kincaid, Robert Fishburne, Jr., Richard Rogers, and Brad Chissom, *Derivation of New Readability Formulas (Automated Readability Index, Fog Count and Flesch Reading Ease Formula) for Navy Enlisted Personnel*, Research Branch Report 8-75 (1975). Millington, Tenn.: Naval Technical Training, U.S. Naval Air Station.

4. Richard Woodcock, *Woodcock Diagnostic Reading Battery* (Itasca, Ill.: Riverside Publishing Company, 1997).

5. The name of the school has been changed to protect participants' privacy.

6. Thomas Yawkey, "Let's Pretend Play as Language Learning," *Reading Improvement* 16:2 (Summer 1979), pp. 130-133.

7. Elaine Andersen, "The Acquisition of Sociolinguistic Knowledge: Some Evidence From Children's Verbal Role-Play," *The Western Journal of Speech Communication* 48:2 (Spring 1984), pp. 125-144.

8. Sandra Bidwell, "Ideas for Using Drama to Enhance Reading Instruction," *The Reading Teacher* 45:8 (April 1992), pp. 653, 654.

9. Kimberly Garrett, Rosetta Busby, and Robert Pasnak, "Cognitive Gains from Extended Play at Classification and Seriation." Paper presented at the 4th National Head Start Research Conference, Washington, D.C., July 9-12, 1998, ERIC Document 423 047.

10. Diane Szarkowicz, "Monsters, Bananas, and Seaweed: Active Participation and Young Children's Understanding of False Belief." Paper presented at the Biennial Meeting of the Society for Research in Child Development, Albuquerque, New Mexico, April 15-18, 1999.

11. Sharon Peck and Aubrey Virkler, "Reading in the Shadows: Extending Literacy Skills Through Shadow-Puppet Theater," *The Reading Teacher* 59:8 (May 2006), pp. 786-795.

12. Pamela Myers, "The Princess Storyteller, Clara Clarifier, Quincy Questioner, and the Wizard: Reciprocal Teaching Adapted for Kindergarten Students," *The Reading Teacher* 59:4 (December 2005), pp. 314-324.

13. Ruth Bennett, "Teaching Reading With Puppets." Proceedings of the 7th Annual Conference on Stabilizing Indigenous Languages,

Toronto, Ontario, Canada, May 11-14, 2000, ERIC Document 462 242.

14. Stuart Naylor, Brenda Keogh, Brigid Downing, Jane Maloney, and Shirley Simon, "The Puppets Project: Using Puppets to Promote Engagement and Talk in Science," Roser Pinto and Digna Couso, eds., *Contributions From Science Education Research* (2007), pp. 289-296.

15. M. Semih Summak, Elcin Summak, and Mehmet Gür, "Drama Behind the Curtain: Shadow Theatre in ESL/EFL Classes." Paper presented at the 28th annual meeting of the Teachers of English to Speakers of Other Languages (TESOL), March 8-12, 1994, ERIC Document 375 628.

16. Juliet Millican, *Reading, Writing, and Cultivating: A Resource Book for Post-Literacy Trainers Based on Experiences in Senegal*. The Hague, Netherlands: Centre for the Study of Education in Developing Countries (1991), ED 367 843.

17. Susan Neuman and Patricia Koskinen, "Captioned Television as Comprehensible Input: Effects of Incidental Word Learning From Context for Language Minority Students," *Reading Research Quarterly* 27:1 (1992), pp. 94-106.

18. Lesley Mandel Morrow, Michael Pressley, Jeffrey Smith, and Michael Smith, "The Effect of a Literature-Based Program Integrated Into Literacy and Science Instruction With Children From Diverse Backgrounds," *Reading Research Quarterly* 32:1 (January/February/March 1997), pp. 54-76.

19. Jerome Bruner, *Actual Minds, Possible Worlds* (Cambridge: Harvard University Press, 1987).

20. Tamara Randolph, "Using Illustrated Chinese Folktales With Adult Language Learners in China," *Hwa Kang Journal of TEFL* 7 (2001), pp. 56-75.

21. S. Jay Samuels, "Reading Fluency: Its Development and Assessment," Alan Farstrup and S. Jay Samuels, eds., *What Research Has to Say About Reading Instruction* (2002), pp. 166-183; International Reading Association; S. Jay Samuels and Alan Farstrup, *What Research Has to Say About Fluency Instruction* (Newark, Del.: International Reading Association, 2006).

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