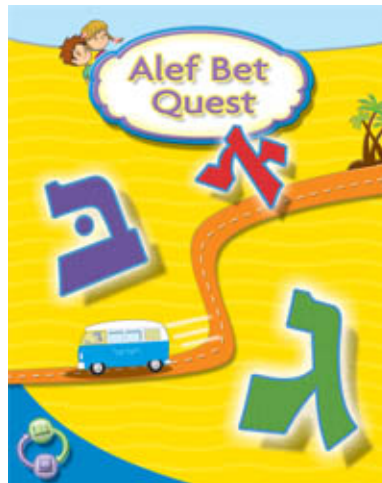


ALEF BET QUEST: **RESEARCH ON HEBREW READING**



By Dina Maiben



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ABOUT ALEF BET QUEST:

Alef Bet Quest is the first fully integrated multi-media Hebrew primer. Students learn to decode letters and vowels from key Jewish cultural words (*matzah, havdalah, yisrael, shofar, moshe*) as well as commonly used Hebrew words (*abba, ima, sabba, savta, mishpahah, shalom*). “Clues to the Quest” in the book motivate students to use the software at home—creating additional practice time and opportunities—as they take a virtual trip through Israel on a quest for a missing golden Kiddush cup. Students practice their new decoding skills with computer-based read-aloud activities (American *and* Israeli accents) and online video games. They can even email their online lesson summaries to their teacher!

ABOUT THE AUTHOR:

Dina Maiben, author of *Alef Bet Quest*, has served as Director of Religious Education at Temple Shaari Emeth in Manalapan, NJ, since 1989. She has published extensively for both adults and children. Nationally recognized for her work in the area of Hebrew reading instruction, she is co-author of *Z'man Likro* (Time to Read Hebrew) and the *Z'man L'Tefilah* (Time for Prayer) series, as well as numerous journal articles on all aspects of the field. She is co-author of *Abraham's Great Discovery* and *How Tzipi the Bird Got Her Wings*, and author of the Teacher's Guide for Volume 1 of *The Explorer's Bible*.

A native of Salt Lake City, Utah, Dina holds a B.A. in Middle East Studies: Hebrew Language and Literature from the University of Utah, and has also studied at the University of Haifa, Israel. She is currently pursuing a Master of Arts in Jewish Studies at Gratz College, Philadelphia.

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Alef Bet Quest is built on a solid foundation of educational research about teaching Hebrew phonics. The following is a summary of the research. When William S. Gray conducted the first cross-national, multilanguage study of reading in 1956, he identified many similarities among mature readers. Although Gray concluded that the process of reading is essentially the same in all languages, he noted some subtle differences. For example, fluent reading follows a universal pattern of eye movements consisting of quick sideways motions, known as saccadic movements, alternating with brief pauses, known as fixations. The reader can actually see the print only during the fixations. Occasionally, the reader's eyes backtrack along the line of print, fixate, and then move forward again. These "regressions" are usually a means of verifying or correcting what the reader has already seen.

Gray reported that mature readers of Hebrew and Arabic make both longer fixations and more frequent regressions than readers of European languages. Why do Hebrew readers need to look longer and verify more frequently? This brief review focuses on three possible explanations suggested by later investigations: (1) the nature of Hebrew word building, (2) the visual complexities of Hebrew print, and (3) the Hebrew vocalization or vowel system. For a more complete analysis of Hebrew print and its implications for reading instruction, see the bibliography on page 8.

The "Root" of the Problem: Hebrew Word Building

Hebrew derives much of its vocabulary from roots. These roots are inflected (or altered) by prefixes, suffixes, infixes, or changes in the vowel patterns to create a wide variety of words. This system lends a mathematical elegance to the language. However, it also creates a visual uniformity that can prove challenging for beginning readers. Because words are generally derived from three-consonant roots, they tend to be between three and six letters long. Moreover, slight alterations in the vowels create significant variations in meaning. Hebrew readers must therefore pay close attention to every visual cue, no matter how small, to correctly identify individual words.

The Visual Complexity of Hebrew Print

Hebrew print does not make matters easier. English has a number of letters that go above or below the line of print, giving words distinctive shapes. Hebrew, however, has only one letter that goes above the line of print (ל) and, with the exception of final letters, only one that goes below the line (ק). As a result, Hebrew words are similar not only in length, but also in shape.

Another difficulty arises from the number of Hebrew letters that are visually similar. Hebrew has only twenty-two basic letters plus five finals. A few of these basic letters represent two sounds (such as ש/שׁ or כ/כּ). Even though Hebrew has fewer than thirty letter symbols, it has been estimated that more than thirty pairs of letters among them look alike! Distinguishing ק from ק, for example, requires the reader to attend to a single, tiny difference in shape.

There are also letters that represent similar sounds (such as צ and צ or ט) and pairs of letters that look different but represent the same sound (such as ט and ט). The same can be said of the vowels. Multiple symbols may represent single vowel sounds (such as א, א, and א for “ah”), and single items may represent different sounds (such as א, which can be either “ah” or “oh”).

In her work with schoolchildren, Israeli researcher Dina Feitelson explored different ways of introducing “look-alike” letters. She examined three different instructional sequences for introducing individual letter and vowel symbols. Classroom experimentation revealed that introducing similar items either together or one right after the other increased students’ confusion. The only effective approach to teaching visually similar items was to separate them with strings of “neutral” symbols.

Similar experiments were conducted about teaching letters that represent similar sounds and different symbols that represent identical sounds. In the case of similar-sounding letters, introducing the letters together or one right after the other also led to an increase in confusion, while separating them with strings of neutral symbols increased student success. By contrast, Feitelson found that introducing multiple letters that represent a single sound together allowed the learner to associate the symbols with each other, reinforcing the shared sound. However, learners who were taught the letters in sequence, with or without neutral symbols in between, tended to remember one symbol but not the other.

The structure of *Alef Bet Quest* closely follows the compelling results of Feitelson's research. Items that either look or sound similar are separated by at least three lessons, allowing the learner to become familiar with one before the second is introduced. Conversely, when a sound is represented by more than one symbol, those symbols are introduced together. For this reason, final letters are introduced at the same time as the regular form of the letter: ם and ן in lesson 1; ץ and ף in lesson 7; ך and ם in lesson 14; ן and ף in lesson 16; ף and ם in lesson 18. Similarly ו and ן are introduced together (lesson 10), ם and ץ are taught together (lesson 11), ף and ם are presented together (lesson 12), and ן is introduced along with ך and ם (lesson 14). Multiple vowel signs that represent single sounds (such as ך, ם, and ן) are likewise introduced together.

There is one exception to this rule. The ן is a controversial vowel because the pronunciation commonly used during worship in North American synagogues differs from Israeli pronunciation. In Israel, ן is pronounced (eh) identical to ן. In North American synagogues, it is often pronounced ן (ay). Because there is no agreement about the pronunciation of the ן vowel, ן and ן are presented in lesson 5, ן is introduced in lesson 8, and ן is treated as a separate item in lesson 11 with the instruction that this vowel should be taught in accordance with the pronunciation used by the school's community.

Because so many Hebrew letters look so similar, and because Hebrew words lack distinctive shapes, the approach to English reading most commonly taught in North American public schools is ineffective when applied to Hebrew. This method emphasizes global reading, making use of as little visual information as possible. In contrast, researchers in Israel have found that mature native readers tend to fully process the visual image of Hebrew print. Researchers have also confirmed that Hebrew reading places a disproportionate strain on beginning readers' visual processing skills. Conversely, they found that a strong visual memory is the single best predictor of reading success among Israeli preschoolers. Hebrew's great demands on the reader's visual system make it particularly important to minimize confusion by introducing visually similar letters and vowels far apart. Once confusion sets in, it can plague a reader literally for years. Consider how much more likely this result is true for students in the Diaspora, whose exposure to Hebrew is usually a very part-time enterprise, than for Israeli learners who live in a fully Hebrew environment.

Hebrew reading depends so heavily on visual processing that researchers suggest all beginning Hebrew reading programs should include activities that develop visual skills. *Alef Bet Quest* contains many such activities. Students are prompted to look closely at letters, vowels, and words. They are asked to circle those that match or to color-code them according to specific criteria. Such activities can be found in lessons 1, 2, 4, 5, 9, 11, and 15. Other activities help students practice making fine visual distinctions between letters that look similar. These activities can be found in lessons 7, 8, 10, 12, 13, 16, and 19. In addition, several of the games recommended in the Teacher's Edition provide specific exercises for developing visual skills. Finally, mnemonics often help strong auditory learners remember sound-symbol relationships. Many of the letter and vowel hints therefore provide mnemonics to help students connect a symbol's sound to its shape (e.g., ך is round, ן has a toe, the ם vowel is over the letter, etc.)

Cracking Hebrew's "Morse Code": The Vowel System

Hebrew vowels are also a problematic aspect of Hebrew print. Not only are they much smaller than the letters, but they are also tucked below, above, or within the line of print. Vowels generally account for more reading errors than consonants in alphabetic languages, but they are a particular source of trouble in Hebrew. One Israeli study found that vowels accounted for 38% of errors made on an oral reading test at the end of first grade, even though vowels account for less than 30% of all Hebrew reading symbols! We must therefore consider the sequences in which the vowels are introduced. Vowel pairs that are visually similar (like ם and ן) or that represent similar but not identical sounds (like ם and ן) should, like easily confused letter pairs, be widely separated. However, different symbols that represent identical sounds (ם, מ, and ן) should be introduced together.

In her research, Feitelson also found that the most effective reading exercises drill each vowel with every consonant that the student has learned (e.g., ך, ן, ן, ן, ן, ן, ן, ן, etc.) rather than the more common pattern of drilling a single consonant with every vowel (ן, ן, ן, ן, etc.). The reading sections in *Alef Bet Quest* are, therefore, structured so that each vowel is drilled with every letter. As new vowels are introduced, they are drilled with various letters and then in consistent patterns (אוּ בּוּ לֹא לָמוּ עֲמוּ דָמוּ). Such patterning provides support to even the weakest readers, allowing them to focus on the changing consonants while still maintaining a level of fluency. At the same time, it helps all students internalize the regular patterns of Hebrew words, a strategy that Hebrew reading experts highly recommend.

“The Words of My Mouth and the Meditation of My Heart”: The Language Connection

A final consideration is the relationship between reading and language. The role of meaningful Hebrew language instruction is another controversial topic in Jewish education. Nevertheless, reading is a language skill. There is considerable evidence that some language learning can enhance a learner’s decoding skills. Oral Hebrew vocabulary instruction is particularly beneficial because it allows students who are weak in visual processing to bring their stronger auditory skills to the task. *Alef Bet Quest* has been designed around a set of Hebrew key words. It also incorporates cognates (words, like קִוְּיָהּ, that are the same in both Hebrew and English). These strategies allow beginning readers to bring their linguistic knowledge to the task of Hebrew reading. Finally, the *Alef Bet Quest Companion Reader* introduces additional vocabulary and simple sentences, presented after students have learned the necessary phonics items. This supplement provides a reading comprehension component in a fun way.

Phonetic Hebrew decoding is the cornerstone of every Hebrew program, no matter what its ultimate goal may be. *Alef Bet Quest* will help you provide that critical foundation.

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