Conquering the Challenge Of Hebrew Decoding

A guide for educators in part-time/synagogue settings

A project of #OnwardHebrew

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With special thanks to

- The 2023-2024 “Decoding Think Tank” participants whose work created the foundation of new research-based practices for Hebrew learning in part-time/synagogue education.

AND

- The 2024-2025 “Conquering the Challenge of Hebrew Decoding Community of Practice” education directors and the teachers who worked with them to further the field’s knowledge of successful decoding strategies.

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INTRODUCTION

FOUR DEFINITIONS TO SET THE STAGE:

There are three words and one phrase that are consistently and specifically used in this document:

- **READING** refers to the process by which a person gains meaning from the print on the page. Those who read fluently have "orthographically mapped" words in their brains, allowing for instant and accurate retrieval, without the need to decode. A typically developing third grader has immediate access to between 5,000-8,000 words in their native language, whereas a typical 12th grader has instant and accurate access to over 80,000. The science of reading outlines three conditions that must be met for a person to achieve orthographic mapping. Unfortunately, our part-time learners cannot meet all these conditions, making it nearly impossible to gain the skills to "read" Hebrew fluently and accurately.

- **DECODING** means breaking down words into their smallest components (letters and vowel signs) and putting them together without necessarily understanding a word's meaning. Learners in part-time/synagogue settings generally focus on Hebrew decoding, some better than others. Note that if one can only decode prayers/blessings it is impossible to pray at "synagogue speed." To become a confident and competent pray-er when in worship, one has to be able to recite the prayers by heart. Ultimately, one's knowledge of decoding adds to the experience *and* keeps a worshiper on track with the pacing of a typical service.

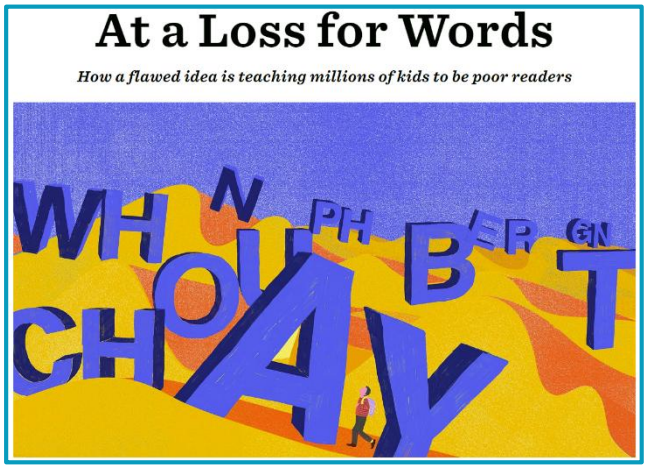
- **RECITING** is the relatively fluent process of singing/chanting/talking memorized words, whether intentionally or unintentionally learned. A typical four-year-old who cannot yet identify the difference between Hebrew and English letters, but has attended Shabbat services regularly, will probably be able to sing *Oseh Shalom* from memory. This is an example of recitation.

- **"SCIENCE OF READING"** is the phrase coined to describe the results of decades of research offering proven strategies for teaching reading to students of all abilities. Thousands of studies have been conducted across the world by researchers from different academic fields (including education, linguistics, neuroscience, cognitive psychology and more). It is called the science of reading to distinguish it from strategies intuitively used by teachers, but that were discredited by cognitive scientists a long, long time ago.

THE PROJECT'S IMPETUS

In late summer 2019, three different colleagues passed along to me (Nachama Skolnik Moskowitz) a link to "At a Loss for Words: How a flawed idea is teaching millions of kids to be poor readers" (American Public Media). This amazing report opened my eyes and heart to the science of reading as it relates to native language learners. As its name implies, the science of reading is based on good, strong, verified research that explains how young people learn to read.

But, a bit more exciting than APM's story (well, at least for me), was that one of the researchers mentioned in footnote #35 was Dr. David Share, a professor at the University of Haifa who had immigrated to Israel from Australia. With a bit of digging, I learned that his research focused the process of reading with young, developing readers in English, Hebrew, as well as Arabic. This led me to wonder whether elements of the science of reading might offer some guidance for those of us who teach Hebrew decoding to children in part-time/ synagogue settings. And indeed, the answer seems to be "yes!"



Early in its narrative, "At a Loss for Words" states, "For decades, reading instruction in American schools has been rooted in a flawed theory about how reading works, a theory that was debunked decades ago by cognitive scientists, yet remains deeply embedded in teaching practices and curriculum materials."

Those of us working in synagogues are operating within a similarly flawed set of assumptions about what can be accomplished with the language background of our children in the time we have with them. Dr. Lifsa Schachter[1] taught other educators and myself about research from the field of Hebrew language learning, but her wisdom and influence has not reached a wide audience beyond Hebrew Through Movement. Educator and author Dina Maiben deserves credit for her research on Hebrew reading[2] and her application of it in a number of Hebrew textbooks that teach the *AlefBet* and *t'fillah*.[3] Unfortunately, her thoughtful work has not shifted deeply embedded teaching theories and practices of many Hebrew teachers.

How do I know? By simply observing sixth graders during the month of May. Unfortunately, after many years of studying Hebrew, not enough of them achieve what

[1] Professor emerita of Jewish education at Siegal College of Jewish Studies and creator of Hebrew Through Movement.

[2] Maiben, Dina. "Teaching Hebrew Reading," in *The Ultimate Jewish Teachers Handbook*, 2003.

[3] Including the *Z'man Likro* and *Z'man L'Tefilah* series, as well as *Alef Bet Quest* and its supporting materials. All available from BehrmanHouse.com.

is a normative expectation in synagogues across North America – smooth and accurate Hebrew decoding. Know that this is not a new problem. In the early 1980s, while serving as a synagogue's director of education, I remember my frustration with the poor decoding skills of sixth graders who, as 4th and 5th graders, were relatively competent Hebrew "readers." However, as sixth graders they forgot letters and stumbled when working with prayers and blessings. Based on emerging scientific research on the brain and its pruning of synapses, several of us had theorized that (*wait for it*) this pruning process may have taken away some previous Hebrew knowledge. No, that is so not how synaptic pruning works! The point I'm making is that throughout the 50 years of my career (and probably for decades before that), we have been less-than-successful teaching Hebrew in our part-time/synagogue settings. Not everyone, not everywhere, but the enterprise as a whole has not achieved its goals. Just go peek in on your sixth graders to check on this hypothesis.

It is possible to blame our Hebrew learning challenges on decreased learning hours per week, frequent student absences, and non-completed homework (if assigned at all). However, we must also look inward as educators, for just as elementary school reading teachers ignored research by cognitive scientists, we too have done the same.

ENTER THE SCIENCE OF READING

As I immersed myself in the science of reading, I came to believe that it offered avenues for improving Hebrew teaching and learning in our part-time/synagogue settings. In past years, I'd probably have simply offered a workshop or two on "ten teaching practices we should be adopting on behalf of our learners." However, it seemed to me that the field would be better served by testing key hypotheses with students to learn what seems applicable to our setting and what is not.

In the 2023-2024 school year, five school directors and/or Hebrew supervisors were invited to be part of a "Decoding Think Tank" facilitated by myself and supported by Dr. Netta Avineri,[4] a professor at the Middlebury Institute of International Studies at Monterey. That fall, Think Tank members began a process of practitioner research experiments to verify the application of some of the science of reading's findings to our part-time/synagogue settings. As practitioners, we called our experiments "sprints," based on the language offered by Justin Reich, director of MIT's Teaching Systems Lab and author of the book, *Iterate: The Secret to Innovation in Schools* (2024). Reich says,

[4] Dr. Avineri is an applied linguist and linguistic anthropologist who served as a co-author of the research study, "Let's Stop Calling it 'Hebrew School' – Rationales, Goals, and Practices of Hebrew Education in Part-time Jewish Schools" (2020). She authored the book *Research Methods for Language Teaching (*2017) and has facilitated two action research year-long seminars for #OnwardHebrew education directors.

"Spirals of improvement let us regularly return to the framing of our problems as we design and test new solutions." He ties these spirals into the idea of making failure cheap, to minimize risk by making experiments "quick, small and light." As a result, Think Tank members designed sprints, not long and involved experiments.

The group met five times on Zoom and used the intervening weeks to try different sprints with their learners. Think Tank members reflected on their original hypotheses, potential strategies and findings. Some hypotheses were rejected, many were accepted, a few were tweaked and others need further testing. And so, in the following year, four education directors from synagogues across North America, answered the call to participate in the "Conquering the Challenge of Hebrew Decoding Community of Practice." As with the Think Tank, this group was guided by Dr. Avineri and myself to work with their Hebrew teachers to test hypotheses that could improve the teaching of decoding in part-time/synagogue settings.

WHAT WE NOW KNOW ABOUT TEACHING HEBREW DECODING

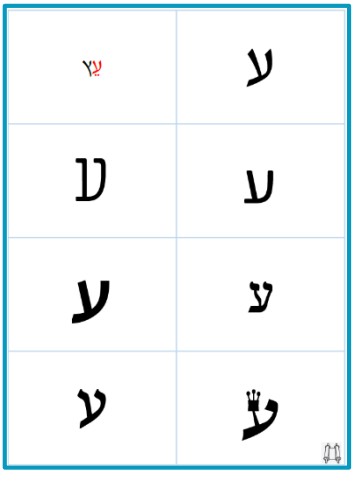
Both the 2023-2024 Think Tank and 2024-2025 Community of Practice uncovered some universal teaching strategies. They are explained in more detail in the Challenge section, starting on page 15. Research findings that support the teaching strategies are included there, as well. Finally, the list of 12 "learnings" are formatted for easy duplication in Appendix A (starting on page 53).

Key learnings from #OnwardHebrew's research and experimentation:

1. **Teach in a one-on-one learning situation where possible**. This means one teacher and one learner. Think Tank members who taught learners individually noted the advantages over pairs, small groups or large groups.

2. **Offer learners the opportunity to identify distinguishing characteristics of new letters**. For example, present a new letter in multiple fonts[5] and ask learners to figure out (for example), "What makes an *Ayin* an *Ayin*?" When a new letter is similar to one already introduced, ask learners to identify what distinguishes the letters from each other.

   In addition, Think Tank members hypothesized that slowing down to do this kind of learning activity in the *beginning* of a learner's Hebrew decoding journey might help prevent later challenges.



[5] A resource with seven fonts per Hebrew letter may be downloaded from here: https://tinyurl.com/AlefBet-fonts

3. **Teach learners the names of the letters and vowel signs** since it helps them focus on which one you are referring to. There are many pairs of Hebrew letters that offer the same sound, so saying "this (*no name*) letter is a V-sound" might confusingly refer to a *Vav* or *Vet*. Or "this is the letter we'll call Tiny Tail" (hmm, is it the *Bet* or *Tav*?). Dr. Lifsa Schachter adds that knowing the names of the letters and vowel signs gives Hebrew learners power over the print on the page.

4. **Teach students to write letters and vowel signs and then assess whether they can do so from memory** without referring to a version of that letter in front of them. This builds (and demonstrates) deeper learning, one that asks learners to produce knowledge, rather than just identify it. A learner shown a *Tet*, has a 50% chance of guessing the letter's name correctly when they are not sure if it really is a *Mem* or *Tet*. And, the act of retrieving and *producing* information (i.e., the shape of the letter) more deeply embeds that knowledge in the brain.

5. **In early stages of learning, or where students are struggling, offer words in large font, one word per card**. This clears away distractions, allowing learners to focus on the specifics of the word. Teachers or tutors may then use the cards to build phrases. *Note that in some of the science of reading research reports, these are called "flashcards," a phrase literally defined as a card that is briefly flashed before a learner. But the recommendation by researchers is for students to work for a period of time with each card. Thus, it seems more appropriate to call these "word cards" rather than "flashcards."*

6. **Employ sound-to-print strategies.** Before students are asked to read a word or line, offer them the power of knowing its sounds by reading it to them first. If working on a specific prayer or blessing, recite or chant it at the beginning of the learning session, as well as at the end. This is not "cheating" – it gives students some of the advantage they have when reading in their native language. Sound-to-print also means offering learners prayer practice with the words in order, not randomly arranged in columns and rows.

7. **Offer correct pronunciation, rather than requiring learners to slowly and painfully sound out Hebrew words.** There is no advantage to students laboriously decoding words, whether with prayers or Torah verses. In fact, for the latter, students may do just as well first learning to chant the words, rather than being asked to learn to decode the verses first.

8. **Offer multiple opportunities for learners to recite prayers and blessings with the goal of helping them learn to recite by heart**.[6] The ability to recite/sing is a key skill, for if all one can do is decode, it is hard to participate in *t'fillah* at "synagogue speed." These learning opportunities include not only regular participation in worship, but also intentional use of #OnwardHebrew's "Sound-BEFORE-Print" approach offered in Appendix C. Yes, students who easily recite prayers and blessings but cannot yet decode Hebrew, might end up with "fossilized errors." Happily, several Think Tank participants discovered quite a few strategies that successfully (and relatively easily) correct recitation errors.
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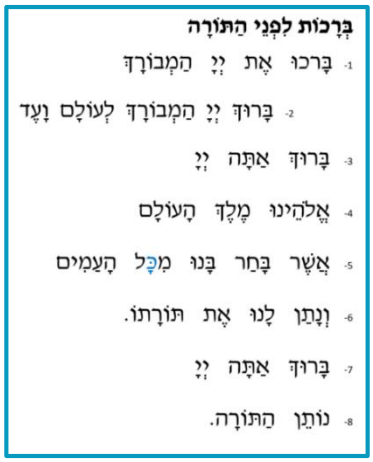
9. **Align Hebrew teaching strategies with Hebrew learning goals.** Dr. Netta Avineri observes that teachers regularly employ learning activities that do not connect to stated educational goals or authentic ("real life") actions. For example:
   - Decoding a page of random Hebrew words set up in four columns and six rows is not an authentic learning task when the goal is developing competence and confidence with *t'fillah*. On the other hand, learning is authentic and aligned when the Hebrew words are kept in the order of the prayer being studied.
   - Authentic and aligned learning tasks would look different when the goal is chanting Torah at one's B'Mitzvah, as compared to expecting the learner to achieve a lifetime ability to chant any Torah portion.

10. **Choose materials where the font size is larger than normal, where there are two spaces between words, extra white space between lines and phrased to match the flow of reading/chanting**. In addition, a san-serif font is thought to be easier for a reader than serif. The visual presentation on the page makes a difference with decoding ability, especially for newbies.



11. **Intentionally help learners transition from the spacing and print of their learning materials to the line spacing in their synagogue's *siddur*.** If they never use their *siddur* (or its layout) they will have a harder time finding their place in a prayerbook during *t'fillah*. It is equally important to offer materials that parallel the layout of verses in a Torah scroll.

[6] The video "Does Sound-to-Print Learning Really Work?" demonstrates the difference in decoding when children are familiar with a prayer and when not. https://tinyurl.com/Does-S2P-work

12. **Listen carefully to learners' comments (even ones not solicited by a teacher's question) and, where appropriate, open conversation.** A child who says in exasperation, "I can't figure out where we are in the service" would probably benefit more from a group conversation that shares strategies for finding one's place, than from a teacher who makes a mental note to more frequently "patrol" during worship to ensure that fingers are on the correct word. Ask questions along the line of, "what do you think?" "why do you think so?" and "what learning strategy works best for you?" Hebrew learning is more than decoding drills and activities that focus on the meaning of prayers and blessings.

Think Tank and Community of Practice members were intrigued by, but did not have time to test, some Hebrew-specific research findings. Examples include:

- Teaching the vowel signs grouped by similar sounds. This means introducing simultaneously those that offer the "ah" sound (*Kamatz, Patah* and *Hataf Patah*), the "oh" sound (*Holam* and *Holam Haser*), etc. The study that reported the benefits of doing so was done in Israel with native speaking children. Think Tank members wondered if such vowel groupings are an efficient learning strategy for native English speakers who do not speak Hebrew.

- Teaching the names of the vowel signs, versus just teaching their sounds.

- Teaching all the vowel signs first, before teaching the letters.

- It is generally accepted practice by Hebrew textbook writers in North America to place several lessons between the teaching of look-alike letters (for example, spreading out the introduction of ה ח ת). A study of Israeli children who are native Hebrew speakers also found that it is helpful to simultaneously introduce letters that *sound* alike (for example, מ ם - ת ט - שׂ ס).

These results from Israel suggest possible new practitioner research on behalf of North American English-speaking Hebrew learners.[7]

In addition, other research seems to debunk a few standard practices in part-time/synagogue settings. For example:

- **Repeating reading drills "over and over**." "We usually address the lack of fluency in education by having kids read and reread words and texts hoping for word memorization. BAD NEWS (*sic*): It's not very effective." (Murray, 2017)[8]
- **Slogging through decoding**. Phonics learning is more effective when "teachers explicitly tell students what sounds correspond to what letter patterns, rather than

[7] It is noteworthy that the bullet points above have been adopted by Behrman House's *Alef Bet Quest.*

[8] All research references cited are in the document, "Science of Reading Research: Implications for Hebrew decoding in part-time/synagogue settings." Scroll down on this page: https://www.onwardhebrew.org/conquering-the-challenge-of-decoding.html

asking students to figure it out on their own and make guesses." (Schwartz and Sparks, 2019). This finding might also encourage teachers to stop playing competitive "speed reading" games where the goal is to "cold decode" (no prep) a word the fastest. A prime example of such a game is, "Around the World."

- **Focusing on sight words**. "Reading researchers have verified that memorization of sight words has not been proven to increase reading fluency (i.e., the speed with which a reader can read and comprehend text)." (*Reading Horizons* website; accessed 11/2023)

- **Asking learners to read prayers and blessings with words they do not know, in a small font size and/or unfamiliar layout.** This may be especially true for assessments given by clergy and B'Mitzvah tutors to determine if learners can accurately and fluently decode Hebrew:
    - "... our study [*conducted with English words*] demonstrates that, similar to results from adult studies, large point sizes are more legible for young children." (Woods, Davis and Scharff, 2005)

    - "Visual aids and formatting involve small changes to a presentation that can have a big impact on the reader." (Ross, 2023)

- **Combining multiple teaching strategies into one learning activity.** This is often done in the **spirit of efficiency** ("we have so few teaching sessions so I will keep things moving by combining a few strategies") or **differentiated instruction** ("student x has auditory processing challenges and student y has visual processing ones so I will combine teaching strategies for both into one exercise"). However, Dr. Netta Avineri warns about the challenge of cognitive overload. This is when the brain no longer functions efficiently because the burdens placed on it overwhelm its capacity. These demands may be the need to process a lot of information, and/or simultaneously juggling many tasks, and/or the *stress* of feeling the need to accomplish a task perfectly.[9] Research supports breaking down complex learning tasks and introducing them serially (one after-the-other), rather than simultaneously.

An unexpected result from the 2023-2024 Decoding Think Tank is how the conversations shifted over the course of the project. As time went on, there were more "I'm wondering what would happen if I …" statements that empowered the participating educators to develop next-step sprints. **Taking on the role of researchers opened them to listening more closely to students than they might have**

[9] Hebrew decoding in itself requires that the student simultaneously pay attention to the **letter's shape**, distinguishing it from similarly shaped letters, **dots above** the letter (like with the *Shin* or a *Holam Haser*), **dots in** the letter (such as a *Dagesh*) and the vowel signs **underneath.**

previously. From this, a number of Think Tank members shifted from a focus on their "teaching" to the process of student "learning." This was impressive, for what one teaches is not always what the learner learns.

WHY IS THIS A PROJECT OF #ONWARDHEBREW?

#OnwardHebrew's core focus is on the learning of Hebrew in part-time/synagogue settings in a progression of sound-to-print. Over the years, the initiative has offered supports for building the sounds of Hebrew in "macro" ways – Hebrew Through Movement, Jewish Life Vocabulary and regular *t'fillah*. These provide the foundation on which decoding is taught, ideally after children have had multiple years' experience with Hebrew as language and the *keva* and *kavannah* of *t'fillah*.

In addition to "macro" learning, #OnwardHebrew offers sound-to-print strategies for teaching the *AlefBet* and helping students learn to decode; these may be described as a "micro" focus on sound-to-print. The resource that is in your hands offers research-based support for teaching strategies, something missing for decades from professional development for synagogue-based teachers and tutors.

But there is more to consider (always more!). #OnwardHebrew advocates for changes in current expectations for decoding Hebrew in part-time/synagogue settings. Research offers reasons why the goal of "fluent and accurate decoding" prior to B'Mitzvah is unrealistic based on our learners' language background and available time. That said, we know that they *can* achieve competence and confidence as "pray-ers" via the skill of recitation matched with the print on the page. They can also feel competent and confident as Hebrew learners because Hebrew Through Movement and Jewish Life Vocabulary are both joyful and linguistically appropriate. Therefore, #OnwardHebrew challenges educators and clergy to reconsider the decades old, laser-focused goal of "fluent and accurate decoding."[10] It is time to start focusing on what we can learn from research and allow ourselves to reconsider "why Hebrew" in our part-time/synagogue settings. This resource booklet offers material to open rich conversation among all stakeholders.

If you don't feel ready for this bigger conversation about Hebrew learning goals, then use this resource to find many research-based ideas for improving Hebrew teaching and learning; that in itself is *dayenu*.

Come join the conversation on Facebook (search for Onward Hebrew or #OnwardHebrew). Let us hear how *your* teaching sprints are going!

Happy "Hebrew-ing!"
Nachama Skolnik Moskowitz,
OnwardHebrew@gmail.com

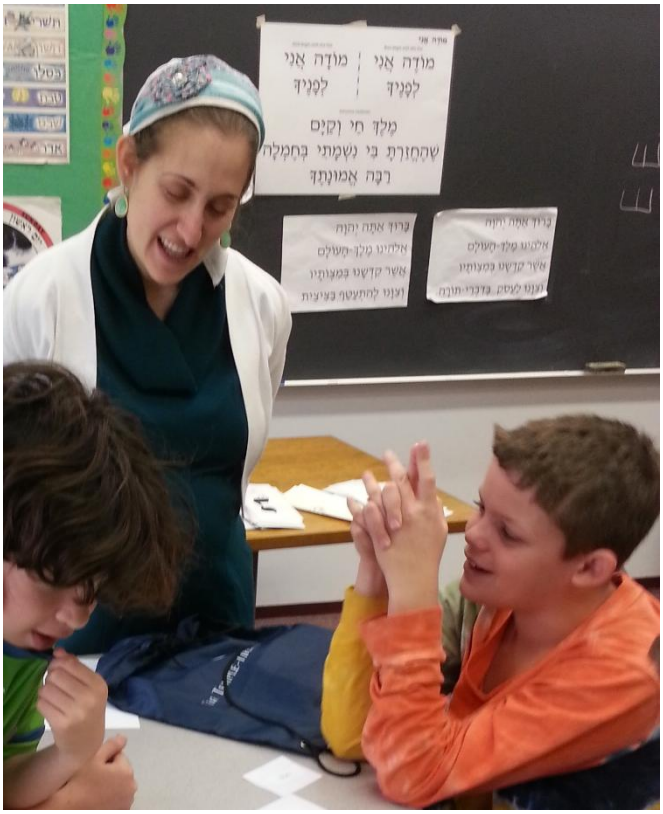
[10] See Appendix E, page 73, especially the last paragraph.

Directors: There is a professional development guide that complements this Conquering the Challenge of Decoding resource. It addresses a long-standing need of education directors and Hebrew supervisors – adoptable and adaptable professional development activities for use with Hebrew teachers and other stakeholders.

This resource is a free download from here: https://tinyurl.com/Hebrew-PD.

It is permanently "parked" on this webpage (matching this URL: https://www.onwardhebrew.org/conquering-the-challenge-of-decoding.html).

CHALLENGES, STRATEGIES, AND CONNECTED RESEARCH



CHALLENGE: HEBREW LETTERS

IF YOUR LEARNERS ARE HAVING TROUBLE REMEMBERING HEBREW LETTERS:

TRY THIS:	**BECAUSE:** *All of these "whys" are based either research from the science of reading (whether focused on learning to read English or Hebrew) or #OnwardHebrew's 2023-2025 teacher sprints.*
Teach the **names** of the Hebrew letters. *Note: There are 22 letters in the Hebrew AlefBet, though some have variations.* • *Letters that are shaped the same, but provide different sounds with a Dagesh and without (for example: כ כּ), are counted as one letter.* • *Ditto for final letters (for example: ך) which are counted as the same letter as the "regular" letter.* *Check out this AlefBet song from Israel that shares the 22 Hebrew letters: https://tinyurl.com/Jigzi-Alefbet.*	• **The initial sound of each Hebrew letter's name tells you its sound.** For example, a *Mem* starts with the "mmm" sound (as compared to the English W ("Double U") where nothing in the W's name identifies its sound as "wwh." **Knowing the name of Hebrew letters gives learners power over them.** This principle explains why the *Alef* and *Ayin* are not considered to be silent letters. The initial sound given by their letter names starts in one's throat. Even those who do not pronounce the deep guttural *Ayin* (as sounded by Jews who immigrated to Israel from Arab countries) can identify the difference. The initial sound of *Alef* starts higher in the back of the throat and *Ayin* starts lower. Indeed, their names offer their sounds. • **There are a number of Hebrew letters that look different, but provide the same sound.** So, when Hebrew letters are referred to by their sound ("find the letter with the 'V' sound") a learner would not know whether to identify a *Vet* or a *Vav*. Indeed, many Hebrew letters share sounds - for example:

	○ "S" – שׂ ס ○ "H" – ך ח כ ○ "K" – ק פּ ○ And more In addition, final letters have the same sound as the letter formed without a *Dagesh* (כּ-ך מּ-ם נּ-ן פּ-ף צּ-ץ). **Learning the names of the letters eliminates confusion when in a teaching/learning situation**. • According to research related to the science of reading, one of the **strongest predictors of reading success for preschoolers** (yes, a different age group than ours in part-time/synagogue education) **is knowing the names of all the letters**.
Use Hebrew learning materials that **separate the introduction of similarly shaped letters** by at least a couple of lessons.	• A study of Israeli children learning to read Hebrew concluded that **students introduced to letters that were similar in shape (for example, the ה ח ת) better remembered the distinctiveness of each letter when they were taught separated by time**. When these letters were introduced simultaneously, learners had a harder time remembering and distinguishing between them.
Consider using Hebrew learning materials that **introduce similarly sounding letters at the same time**. For example, teach the *Mem* and *Mem Sofit* in the same lesson. Ditto for teaching the *Sameh* and *Sin* simultaneously	• A study of Israeli children learning to read Hebrew concluded that **students introduced to letters that were pronounced the same (e.g., שׂ and ס), better remembered the letters when they were in the same lesson.** When they were taught one after the other or separated by a number of lessons, learners had a harder time remembering their name/sound.
Ensure that learners not only can **identify Hebrew letters shown to them,** but also	• Research from the science of reading reports that **one element that leads**

can **draw the letter from memory**, without looking at a pre-printed letter before doing so. *Note that for part-time/synagogue learners, this recommendation is not suggesting that the full skill of Hebrew printing be taught and reinforced. Rather, it recognizes that forming a letter from memory demonstrates deeper retention of the letter and its shape.*

- **Offer learners multiple *writing* modalities** for practicing their letters (e.g., on a whiteboard, in a notebook, in sand, or with watercolors and a paintbrush). Because this strategy is about being able to form letters from memory, it is probable that doing *AlefBet* yoga and bending letters with Wikki Stix™ are not as powerful memory reminders as actually printing by hand.

to success is knowing the names and sounds of *each* letter. For a variety of reasons, many part-time/synagogue learners have not achieved this knowledge for all Hebrew letters.

- **Hebrew letters are less distinctive than English** – few go above or below the line, many are of a block shape (ב ה ח כ פ ת) and only some have curves. **Drawing the letters from memory gives learners the opportunity to demonstrate that they remember the shape of each**.

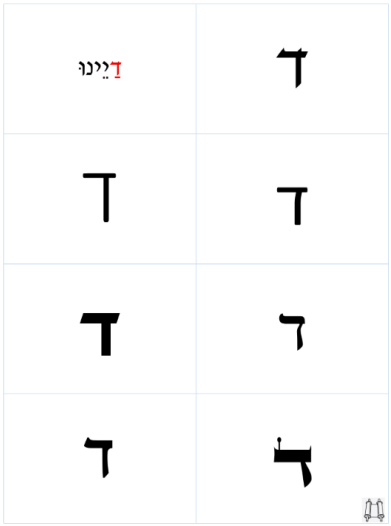
- When a teacher shows a learner a Hebrew letter and asks for its name and sound, this assesses the skill of recall. And, if the learner is uncertain if the letter is a *Tet* or *Mem*, then they have a 50% chance of *guessing* correctly. However, **when the learner has to draw/write the letter from memory, they are actively producing a concrete image,** thus demonstrating deeper, more permanent learning.

- **The kinesthetic act of writing stimulates most of the brain,** supporting stronger learning and building memory.

- Teachers hold **students accountable for their learning** when assessing their ability to write letters from memory.

- **Ask learners to tell you how to draw a letter.** If they are not specific enough (e.g., saying for the *Alef*, "Draw a diagonal line") shape the letter as it "might" be (e.g., draw the *Alef*'s line with the opposite tilt). Ask them to check your work.

When teaching the *AlefBet*, ask learners to **identify the similarities of the same letter offered in different fonts**. For example, say "All of these are a *Dalet*. What makes a *Dalet*, a *Dalet*? What is similar about all of these?"



NOTE: This document offers seven different fonts for each Hebrew letter, as illustrated above. *https://tinyurl.com/AlefBet-fonts*.

Ask students to identify what is critical about each letter's shape.

- Have a general "what do you think?" conversation
- Ask them to create a letter in a font style of their own and explain the key features that correspond to the letter's shape.

Visual strategies improve learning when they help learners remember the distinguishing characteristics of

- **Many Hebrew letters are boxy in shape.** Very few go above or below the line which makes it hard to quickly identify distinguishing characteristics.

- **There are many Hebrew letters that have look-alike qualities**, for example ה ח ת, as well as ב and כ when the shape is turned on its side. Mix-ups can easily happen.

- **Having learners truly consider each letter's visual characteristics moves them from being passive receivers of information** (Teacher: "This is a *Bet*; look at the little line out to the right on the bottom") **to active producers of knowledge** (Child: "I see that it has a little tail on the bottom, right?").

- Research from the science of reading explains the **benefits of what are called "embedded mnemonics." These are pictures that remind learners of a letter's sound.**

- **Slowing down the initial teaching process in a student's Hebrew learning journey may help them more deeply learn and remember** each letter and its sound. This slower pacing would help learners better pay attention to the characteristics that distinguish each letter from another that (at first glance) looks similar.

letters. Ideally, ask students to identify these. • An option is to offer clues like "a ***R****esh* has a **r**ounded corner and a ***D****alet* is **d**ented." • Another is to use "embedded (picture) mnemonics," like "the ***D****alet* looks like a **d**iving board." **Finding specific letters in the context of words may be helpful since they can be visualized in proportion to other letters in the font.** • After learners have been introduced to a new letter (e.g., a *Nun*), ask them to locate and highlight it in a large-print version of a prayer or blessing (e.g., finding and highlighting each *Nun* in the *<u>H</u>anukkah* candle blessing). No, they do not need to know any of the other letters to do so, but the exercise will help learners see the need to keep the *Nun*'s characteristics in mind when also faced with as yet untaught letters like *Vav* or *<u>Kh</u>af*.	
Teach Hebrew decoding one-on-one (one child, one teacher or tutor) 	• **In one-on-one learning situations, the pacing follows the individual child's learning speed**, not a group's average timing or a teacher's general pacing assumptions. • **When learning one-on-one with a teacher or tutor, students who were absent can pick up where they left off**, as compared to missing knowledge or practice opportunities because the group "moved on." • **In a one-on-one learning situation, the teacher can quickly and easily identify any challenges** the learner is facing, rather than letting errors

	become concretized/fossilized over time. • **When working one-on-one, individuals cannot sit passively**, allowing others to answer for them. They also have **more opportunities to produce knowledge** (Learner: "I see that middle line of the שׁ שׂ שׁ can go straight down, on a diagonal to the left, or down-a-little-and-over to the line on the far left"), **rather than passively receiving it** (Teacher: "This is a *Shin*, it looks like this").
NOTE: For learners having challenges with final letters (ך ם ן ף ץ) use the same techniques as above. • **Show learners each regular letter and its final letter. Ask them to offer some thoughts on how the two letters are similar**. Can they deduce that the final letter's bottom stroke has been stretched down, below the line?	• **With the exception of the *Mem Sofit*, each of the final letters extend the leg of the regular letter below the bottom line**. • Note **that ancient Hebrew used to be written without spacing between words**. The final letters helped the reader see where some words ended and the next ones began.

Targeted bibliography:

- Ehri, 1998
- James and Engelhardt, 2012
- Schwartz and Sparks, 2019
- Shanahan, 2021
- Share, 2004
- Share and Levin, 1999
- White, 2024

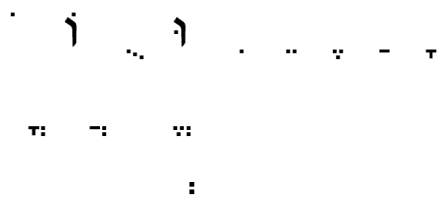
To locate these authors' findings, click on this link and scroll down to the icon: "Science of Reading Research: Implications for Hebrew Decoding."

- See Section 3 for specific quotes from the Targeted Bibliography authors listed above. The section with the "Hebrew letters" research begins on page 14.
- See Section 2 to access a full bibliography with URLs linking to the sources noted above, as well as others.

Special thanks to #OnwardHebrew practitioner researchers Ryan Murace and Marci Pick for contributing to this section.

CHALLENGE: VOWEL SIGNS

IF YOUR LEARNERS ARE HAVING TROUBLE REMEMBERING HEBREW VOWEL SIGNS

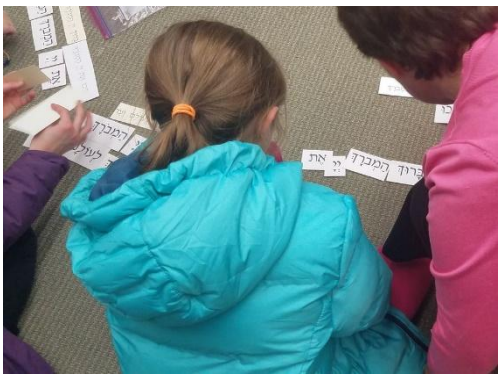
TRY THIS:	**BECAUSE:** *All of these "whys" are based either research from the science of reading (whether focused on learning to read English or Hebrew) or #OnwardHebrew's 2023-2025 teacher sprints.*
Teach the **names of the vowel signs.** Include lots of repetition and practice.  *Note that formally, a Sh'va is not considered to be a vowel sign.* **Begin teaching (or reviewing) decoding by first introducing all the vowel signs by name along with a visual image**. Then, at the start of each subsequent lesson, review the vowel signs by name, sound and visual cue. *"Teaching vowel signs first" needs further testing, but a number of teachers said that this sequence showed great merit.*	• **Knowing the names of the vowel signs gives students power over them.** They take on more significance than referring to them simply as "one dot," "two dots," or "a little T" under a letter. The names also provide a clue as to the vowel sign's sound since the vowel of the first syllable offers its sound (e.g., *K**a**matz* – offers the letter an "ah" sound). • **Children are taught the names of letters and vowels simultaneously in their native language.** It is natural to know the names of both. One of the Community of Practice teachers noted that it is much easier to introduce vowel names simultaneously with letters, as compared to a later instructional "add on."
Spend time focusing on the visual characteristics and sounds of vowel signs. **Consider teaching learners how to do "vowel karate"** as a way to kinesthetically remember the vowel signs. • A video of the "chant" and actions is here: https://tinyurl.com/vowel-karate. • An explanation of the actions is here:	• The educator that introduced the Decoding Think Tank to "**Vowel Karate" says that learning vowel signs kinesthetically makes a difference in student decoding**. When stumped on a vowel sign within a word, some learners have been known to karate chop the air with the name/sound of the vowel sign and then tackle their decoding.

https://tinyurl.com/vowel-karate-explained.	
Teach **vowel signs grouped by those with a similar sound** (for instance: *K**a**matz, P**a**tah* and *Hataf P**a**tah* all have an "ah" sound). • When learners are learning decoding for the first time, it would be helpful to teach vowel signs in sound-alike groupings. • When doing a review for those who have already learned basic decoding, group sound-alike vowel signs together. • On a prayer/blessing printed in large font, ask learners to highlight vowel signs with the same sound and identify their different names. Many Israeli children are taught a vowel sign (e.g., *Kamatz*) that is then matched to different letters so that their practice line might be: בָּ לָ גָ). North American practice is the opposite – teach a letter (e.g., בּ) and then apply to it all the vowel signs that children have learned to date; the practice line might be: בָּ בָּ בֵּ בֵּ בִּ	• **Studies from Israel have shown that vowel signs represent over 60% of reading errors for native language first and second graders.** As a result, members of the Decoding Think Tank hypothesized that slowly and deliberately teaching Hebrew vowel signs to part-time/synagogue learners in North America could support later retention. • Studies from Israel that focused on native language Hebrew speakers, demonstrated that **vowel signs representing the same sound should be taught simultaneously** (for example the *K**a**matz, P**a**tah* and *Hataf P**a**tah*). **Vowel signs that are visually similar should be taught in lessons separated from each other** (for example, the *K**a**matz* and *S**eh**gol*)**.** *Note: This practice was not tested by either the Decoding Think Tank or Community of Practice.*
Enlarge the font so that it is easier for learners to visually distinguish one vowel sign from another. • Do this on word cards. לְהַדְלִיק • Then graduate to longer phrases and eventually to the prayers being learned. לְהַדְלִיק שַׁבָּת שֻׁל נֵר	• **Larger font sizes with extra white space between words and lines are easier for young children to read/decode accurately.** Also, in studies of English reading, sans-serif fonts were easier for children to read than serif fonts. One might hypothesize that simpler (less complex) Hebrew fonts would achieve the same results, making it easier to pay attention to the letter shapes and vowel signs. • In an Israeli study with second graders, **Hebrew reading comprehension decreased when font size was decreased** or line

	length increased. While reading content is not the same as decoding prayers, font size is impactful on success.
Offer enlarged words on cards. • **Have learners segment the words** according to the Hebrew protocol which is based on the number of full vowel signs within. [See Appendix B: How to Segment Hebrew Words.]  • Then, as teacher/tutor, **read the word aloud so the learners hear its sound before *they* tackle the print**.	• **Individual word cards allow children to better focus on the specific elements in a word** (e.g., letters and vowel signs) without other visual distractions or stress from seeing too much print on the page. • **Learning is less effective when students are asked to figure out (or guess) how to decode** a word or passage. It is more effective when teachers tell students how to pronounce difficult words while students look at them.

Targeted Bibliography

- Halamish, Nachman and Katzir, 2013
- Katzir, Hershko and Halamish, 2013
- Maiben, 2003
- Miles, 2015
- Ross, 2023
- Schachter, 2010
- Schwartz and Sparks, 2019
- Share and Levin, 1999
- Woods, Davis and Scharff, 2005



To locate these authors' findings, click on this link and scroll down to the icon: "Science of Reading Research: Implications for Hebrew Decoding."

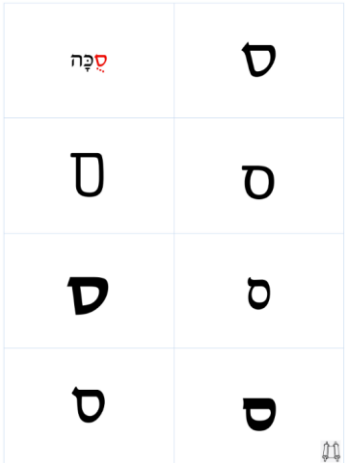
- See Section 3 for specific quotes from the Targeted Bibliography authors listed above. The section with the "Vowel Signs" research begins on page 15.
- See Section 2 to access a full bibliography with URLs linking to the sources noted above, as well as others.

Special thanks to #OnwardHebrew practitioner researchers Joanne Citrin, Steve Kerbel and Ivy Schwartz for contributing to this section.

CHALLENGE: SIMILAR LOOKING LETTER MIX-UPS

IF YOUR LEARNERS ARE HAVING TROUBLE DISTINGUISHING BETWEEN HEBREW LETTERS THAT LOOK SIMILAR:

TRY THIS:	**BECAUSE:** *All of these "whys" are based either research from the science of reading (whether focused on learning to read English or Hebrew) or #OnwardHebrew's 2023-2025 teacher sprints.*
Use learning or practice materials with larger than usual font. Also, choose a font style where **the individual characteristics of potentially confusing letters can easily be seen**. If working with phrases or sentences, **use materials with double-spaces between words and extra white space between lines/rows**. 	• **Visual aids can have a big impact on a reader,** including attention to font sizes and style, as well as line spacing that can reduce visual clutter. • In an Israeli study with second graders, **Hebrew reading comprehension decreased when font size was decreased** or line length increased. While reading content is not the same as decoding prayers, font size is impactful on success. • Also, **in studies of English reading, sans-serif fonts were easier for children to read than serif fonts.** One could hypothesize that simpler Hebrew fonts would achieve the same results, making it easier to pay attention to the letter shapes and vowel signs.
Review what makes each letter, that letter. Then, ask learners to look closely at letters that they might mix up. Have them identify what differentiates the letters from each other. *NOTE: This document (free download) offers seven different fonts for each Hebrew letter:* https://tinyurl.com/AlefBet-fonts *See the next page for a sample sheet.*	• **Slowing down the learning process may help learners more deeply remember the characteristics** that will help them distinguish letters that (at first glance) look similar. • Some of the Hebrew teacher researchers originally hypothesized that students who had learned with one font did not decode as well when when using a new/different font.

	These teachers also thought that some of the decoding issues may have come from some fonts that did not clearly distinguish between letters. But **these teachers independently concluded that font differences were not the issue – font size was.** Increasing the size of the font and adding more white space made a distinct difference in student decoding.
Give learners individual letters on cards. Provide opportunities for students to consider the differentiating characteristics of each letter so as to help distinguish them from one another. 	• **Individual cards allow children to better focus on the specific elements of a letter** without other visual distractions. • **Larger font sizes are easier for young children to decode and are helpful to memory.** In studies of English reading, sans-serif fonts were easier for children to read than serif fonts. One might hypothesize that simpler Hebrew fonts would achieve the same results, making it easier to pay attention to the letter shapes that can otherwise be confusing.
Ensure that learners not only can identify each letter shown to them, but also can **draw the letters from memory** (meaning they do not look at a pre-printed letter before doing so). *Note that for part-time/synagogue learners, this recommendation is not suggesting that the full skill of Hebrew writing be taught and/or reinforced. Rather, it is recognizing that printing a letter from memory demonstrates deep retention of the letter and its shape.* • **Offer learners multiple *writing* modalities** for practicing their letters (e.g., on a whiteboard, in a notebook,	• The research on the science of reading reports that **knowing the names and sounds of *each* letter leads to reading success**. For a variety of reasons, many part-time/synagogue learners have not retained this knowledge for all Hebrew letters. • Showing a Hebrew letter and asking a learner for its name and sound asks for recall. However, **when the learner has to draw/write the letter from memory, they actively produce a**

in sand, or watercolor paint with a paintbrush). Because the research finding is about being able to write letters from memory, it is probable that doing *AlefBet* yoga and bending letters with Wikki Stix™ are not as powerful memory reminders as actually forming a letter by hand. • **Ask learners to tell <u>you</u> how to draw a letter.** If they are not specific enough (like for the *Alef*, "Draw a diagonal line"), shape the letter as it "might" be (for example, draw the *Alef*'s line with the opposite tilt). Ask them to check your work.	**concrete image, thus demonstrating lasting learning**. • **The kinesthetic act of writing stimulates most of the brain**, supporting stronger learning and building memory. • **Teachers hold students accountable** for their learning when assessing their ability to write letters from memory.
Offer cards with large-font words that include a letter that is potentially confused with another. Ask learners to locate that letter on each card and give its name. For example: • Ask them to point to words with the ה at the beginning of the word. • "Graduate" to word cards where the letter (e.g., ה) is at the end. • Then, use cards where the letter (e.g. ה) is in the middle. Repeat with a letter that could be confused with the first, for example the ח. Then, **include word cards where both letters are included**. For example: שֶׁהֶחֱיָנוּ **Finding specific letters in the context of words may be helpful since the letters can be visualized in proportion to other letters in the font.** • After learners have been introduced to a new letter (e.g., a *Hey*), ask them to locate and highlight it in a large-	• **Individual word cards allow children to better focus on the specific elements in a word** (e.g., letters and vowel signs) without other visual distractions. • In an Israeli study with second graders, **Hebrew reading comprehension decreased when font size was decreased** or line length increased. While <u>reading</u> content is not the same as <u>decoding</u> prayers, font size is impactful on success. • Decoding Think Tank members discussed the difficulty that some learners have distinguishing between letters like *Vav* and a *Nun Sofit*. **They hypothesized that seeing potentially confusing letters in the context of words would help learners distinguish between them better than if the letters were individually shown on cards**. For example, within a word, students could more easily see that the *Vav* stops at the bottom line and that the *Nun Sofit* continues into the space

print version of a prayer or blessing (e.g., find and highlight each *Hey* in the *Shehe<u>h</u>eyanu* blessing). No, they do not yet need to know all of the other letters to this activity, but the exercise will help learners see the need to keep the *Hey's* characteristics in mind when faced with as yet untaught letters like *Tav* or *<u>H</u>et*.	below. *This hypothesis was not tested by either the Think Tank or Community of Practice.*
Offer enlarged learning materials and ask students (working individually or in pairs) to **highlight one of the confusing letters with one color of highlighter** (for example, highlight each ה with yellow). • [*The following instructions are for a <u>group</u> of learners. If working one-on-one they will need to be adapted.*] >>> Ask learners to hold up the number of fingers that show how many of this first letter they discovered on the page. If the learners are not in agreement, ask all to recheck their work then do another recount. If they all have not yet found the same number of this letter, help those who are "off" discover their mistake. [Replace the sheets of learners who highlighted incorrect letters.] • Ask learners to highlight in a different color the second letter that could cause confusion with the first. Repeat the steps above where they count these letters and share results. After practicing for a while, offer a sheet without the highlights and check to see if each learner can identify the potentially confusing letters. If not, repeat some of the strategies, above.	• **Learners who first focus on letters typically gain more skill at reading than those who are taught to focus on whole words**. A whole word focus, as compared to that of letters and their sounds, produces more activity on the right side of the brain which is characteristic of adults and children who struggle with reading.

Targeted Bibliography

- Ehri, 1998
- James and Engelhardt, 2012
- Kilpatrick, 2015
- Miles, 2015
- Schwartz and Sparks, 2019
- White, 2024
- Woods, Davis and Scharff, 2005

To locate these authors' findings, click on this link and scroll down to the icon: "Science of Reading Research: Implications for Hebrew Decoding."

- See Section 3 for specific quotes from the Targeted Bibliography authors listed above. The section with the "Similar Looking Letter Mix-Ups" research begins on page 17.
- See Section 2 to access a full bibliography with URLs linking to the sources noted above, as well as others.

Special thanks to #OnwardHebrew practitioner researchers Nicole Gamboa and Ryan Murace for contributing to this section.

CHALLENGE: *SIDDUR* DECODING

IF YOUR LEARNERS ARE HAVING TROUBLE DECODING PRAYERS WHEN USING THE *SIDDUR*, AS COMPARED TO MORE FAMILIAR LEARNING MATERIALS:

TRY THIS:	**BECAUSE:** *All of these "whys" are based either research from the science of reading (whether focused on learning to read English or Hebrew) or #OnwardHebrew's 2023-2025 teacher sprints.*
Check to **see how different the font of your learning materials may be from your synagogue's *siddur* font** AND experiment to see **IF font confusion is creating difficulties** for your learners. • **Note if there is a difference in decoding ability between font styles.** Ask each learner to decode 4-6 word cards, each with a Hebrew word from a prayer/blessing they have worked on previously. Include 2-3 word cards in the font style of your learning materials and 2-3 word cards printed in the style of their normative *siddur*. [*An easy way to create siddur word cards is to use the photocopier to enlarge prayers, then cut apart the words and glue onto small cards.*]	• When a "Decoding Think Tank" educator noticed that learners were making mistakes when reading from the *siddur*, she first hypothesized that a different font was creating the difficulty for students. However, after testing out her theory, she **discovered that for her learners, font differences were not the root of the issue**. The more proficient decoders indicated the fonts were "similar enough" and that they could often guess the letters. Occasionally they needed minimal clarification of a letter's shape as found in the *siddur*. However, students who struggled to decode, generally had issues with the same letters no matter the font style.

• **If you notice that the *siddur* font is causing an issue, determine which letter shapes are creating the most difficulty**. Then:
  ○ Help students identify the **similarities between specific letters that look different in the *siddur*** from your regular learning materials.
  ○ On a copy of the prayer being worked on, **ask learners to highlight the letters that are causing difficulty** in that specific
	• **Individual word cards printed in a large font size allow children to better focus on the specific elements in a word** (e.g., letters and vowel signs) without other visual distractions or the stress of seeing too much print on the page.
	
	• **Learning is less effective when students are asked to figure out (or guess) how to decode** a word or passage. It is more effective when teachers first tell students how to

<table>
<tr>
<td>prayer/blessing. Decode those words for the learner(s) and have them read it back. Then decode each line of the prayer/blessing and have children decode right after. After several times decoding with highlighted letters, return to the non-highlighted version of the siddur.

Below is an excerpted example of highlighting that a Think Tank participant created for use with a Zoom class:

7 מְכַלְכֵּל חַיִּים בְּחֶסֶד,
8 מְחַיֵּה הַכֹּל
9 בְּרַחֲמִים רַבִּים.
10 סוֹמֵךְ נוֹפְלִים, וְרוֹפֵא חוֹלִים,</td>
<td>pronounce new or difficult words and have students repeat them back aloud.</td>
</tr>
<tr>
<td>Offer students a copy of the large print version of their synagogue’s siddur.
OR
Create learning materials that:
• Use larger font (if possible, with a font that is similar to the synagogue’s siddur).
 
• Have two spaces between each word and extra white space between lines.
• Are spaced so the lines begin and end where it makes sense grammatically and/or where a person praying might pause based on meaning. See this example from G’vurot:</td>
<td>• Larger font sizes are easier for young children to read/decode. Also, in studies of English reading, sans-serif fonts were easier for children to read than serif fonts. One might hypothesize that simpler Hebrew fonts would achieve the same results, making it easier to pay attention to the letter shapes and vowel signs.

• In an Israeli study with second graders, Hebrew reading comprehension decreased when font size was decreased or line length increased. While reading content is not the same as decoding prayers, font size is impactful on success.

• The larger font and extra white space can make all the difference in decoding since printed nuances of similarly shaped letters (for example: ג נ ו ז) and vowel signs can more easily be seen.</td>
</tr>
</table>

מְכַלְכֵּל חַיִּים בְּחֶסֶד, מְחַיֵּה הַכֹּל (מֵתִים) בְּרַחֲמִים רַבִּים, סוֹמֵךְ נוֹפְלִים, וְרוֹפֵא חוֹלִים, וּמַתִּיר אֲסוּרִים, • **Help learners transition to their synagogue's *siddur*** by using learning materials with the same line spacing as the synagogue's *siddur*, but use large font and more white space. An option is to simply use a large print siddur. Work with these "sound-to-print." #OnwardHebrew has developed prayer sheets with the formatting suggested above for free and immediate download. • For PDFs only, scroll down on this page: https://tinyurl.com/Teacher-Tutor-Resources • For a choice of PDFs and Word documents, go to https://JECCMarketplace.com and search on the website for "Large Print Prayers."	• The "Decoding Think Tank" educator who experimented with *siddur* usage, took a closer look at how those who learned to recite prayers/blessings regain their place on the page when they get lost. The children offered a variety of strategies. **A common thread that emerged was "holding onto a visual image of the prayer's layout." The children who reported this noted that they used their knowledge of the printed page to visually jump ahead. Then they waited for the group's recitation to catch up**. Bottom line, using the layout of prayers/blessings from the synagogue's *siddur* seems to help create more confident and competent *siddur* decoding. [*Note: Not all siddurim lay out prayers in a visually helpful way like the image of G'vurot in the left column. Using a layout that matches your siddur offers cues for learners when in worship.*]

Targeted Bibliography

- Katzir, Hershko and Halamish, 2013
- Miles, 2015
- Ross, 2003
- Schwartz and Sparks, 2019
- Woods, Davis and Scharff, 2005

To locate these authors' findings, click on this link and scroll down to the icon: "Science of Reading Research: Implications for Hebrew Decoding."

- See Section 3 for specific quotes from the Targeted Bibliography authors listed above. The section with the "Siddur Decoding" research begins on page 20.
- See Section 2 to access a full bibliography with URLs linking to the sources noted above, as well as others

Special thanks to #OnwardHebrew practitioner researcher Linda Duke for contributing to this section.

CHALLENGE: TORAH DECODING/CHANTING

IF YOUR LEARNERS ARE STRUGGLING TO DECODE VERSES FROM THE TORAH OR HAFTARAH:

TRY THIS:	**BECAUSE:** *All of these "whys" are based either research from the science of reading (whether focused on learning to read English or Hebrew) or #OnwardHebrew's 2023-2025 teacher sprints.*
Reconsider your expectations for requiring learners to attain accurate and fluent Torah and/or Haftarah decoding before they learn to recite or chant the verses. Just as prayers may be learned sound-to-print, so may verses from the Bible.	• **Learning to decode verses from the Bible is more difficult than learning to decode prayers.** ○ Prayer decoding is bolstered by students previously having heard and recited prayers. Quite the opposite, Torah/Haftarah verses have usually not been previously heard or recited by our learners. ○ When students cannot work sound-to-print, the task is made more difficult since it is impossible to personally determine when one has made a mistake; there is little support for self-correction. Thus, a fairer task for those beginning to work on their Torah portion sound-to-print is to **hear the individual verses (and words) read to them before they are expected to decode them independently**. • Research from the science of reading explains that **three conditions must be met for learners to become fluent and accurate "readers"**: ○ They have to **know all the letters of the alphabet** and the sounds they make. ○ They must have **phonemic awareness** (this means that they

	can hear the various sounds in isolated words). ○ They have to know (or at least be strongly familiar with) the **target language**. When these three conditions are met, individual words are "magically" (well, actually, orthographically) mapped in the brain, available for immediate and accurate access when seen in print. Because these three conditions are not usually met by part-time/ synagogue learners, students lack the ability to gain the skill of "fluent and accurate reading." **Our students especially lack biblical language proficiency**, never mind that the **Hebrew in the Bible dates back more than 2000 years.** In addition, **Torah font looks very different** from what learners are used to. Bottom line, while regular *davening*/praying helps build familiarity with the language of prayer, **learners have little to no similar "sound" experience with the language of the Torah prior to tackling their Torah portion**. **Giving them this background is helpful.** [In reporting on English language learners with disabilities, Kilpatrick noted that to become successful English readers, they have to have words stored in phonological long term memory, even if they do not yet know their meaning. It seems reasonable that our learners, working with biblical language they do not understand, need to store the "sounds" in memory to become successful when chanting or reading Torah.]

	There is evidence to suggest that **it is beneficial for learners to first be taught to chant Torah**, rather than spend time working on perfecting their decoding of the verses. To be successful on the *bimah*, they need to memorize both the vowels and the trope – none of these are in the scroll. So, unless the goal is for them to learn trope to apply to any Torah verses, students could easily start chanting their Torah verses from Sefaria.org (vowel signs and trope marks included) printed with enlarged font, extra white space and parsed to fit the natural phrasing. • **Learning to "read" or chant Torah/ Haftarah with supportive technologies that provide the sounds has been a relatively long-standing tradition in modern Jewish life**, whether from a YouTube video, MP3, cassette, tape recorder or vinyl record (the latter were first recorded by cantors over 100 years ago).
Work on each פָּסוּק (*pasook* ,verse) **one at a time, progressing from less complex to more:** • Offer learners **large font/voweled word cards**. פַּרְעֹה ○ Work with these individually, **asking students to segment** them as needed according to the conventions of Hebrew (see Appendix B: How to Segment Hebrew Words). פַּרְ|עֹה	• **Individual word cards allow children to better focus on the specific elements in a word** (e.g., letters and vowel signs) without other visual distractions or the stress of too much print on the page. The "Decoding Think Tank" educator who focused on Torah portions noted that words learned first on word cards were better able to be decoded in the Torah (or conversely, in the *siddur*). • In addition, the "Decoding Think Tank" educator who focused on Torah portions noted the **benefit in learning in a progression that moves from less complex tasks to more complex.** For her student, this

- **Read each word** to the student instead of first asking them to "sound it out." Then,
- **Lay out the large-print word cards to create phrases** based on the grammar offered by the trope. Work with these, as above, sound-to-print.

This photo illustrates materials for learning prayers/ blessings, not Torah. That said, the process is the same.

- Then, **offer learners the printed full פָּסוּק** (*pasook,* verse) **in large font and extra white space between words and lines** with the vowel signs. Trope marks should be added at the appropriate time for the learner.

  NOTE that free-to-use Sefaria.org offers each biblical verse with both the vowel signs and trope marks. A student's portion could be copied, enlarged and formatted to help with phrasing.

meant starting with a word card, moving to a phrase and then the entire פָּסוּק (*pasook,* verse). This progression created a manageable scaffolding for the learner. [See the note on *cognitive overload*, page12, above.] "Less complex to more complex" also raises the possibility of first teaching easier Torah verses before introducing more complicated ones.

- **Larger "clean" font sizes are easier for young children to read/decode.** In studies of English reading, sans-serif fonts were easier for children to read than serif fonts. One might hypothesize that simpler Hebrew fonts would achieve the same results, making it easier to pay attention to the letter shapes and vowel signs prior to tackling the Torah text.

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- In an Israeli study with second graders, **Hebrew reading comprehension decreased when font size was decreased** or line length increased. While reading content is not the same as decoding Torah verses, font size is impactful on success.

- When learners are starting to work on decoding Torah verses, it is helpful to give them **materials in a large font, with extra space between words and more white space between lines**. Then, transition to a *Tikkun* or the actual Torah scroll.

- **Learning is less effective when students are asked to figure out (or guess) how to decode** a word or passage. It is more effective when teachers/tutors first tell students how

	to pronounce difficult words, with the learners repeating them aloud.
Check to see if the line breaks of Torah verses in their learning materials are different from the spacing of those in the actual Torah scroll they will be using. • Create large-font study pages with the vowel signs and trope markings that **match the layout of the lines in the Torah scroll** that the B'Mitzvah student will use. The verses may be copied from Sefaria.org and formatted according to the Torah's layout. • Take a **photo of the verses in the Torah and work with these sound-to-print** before progressing to using the Torah scroll.	• **Start with materials offered in a large font, with extra space between words and more white space between lines**. Then, **transition to a *Tikkun* or the actual Torah to be used**. The "Decoding Think Tank" educator focusing on Torah learning, noted that a learner who worked not just from a *Tikkun*, but from a clear photo of the actual Torah scroll they'd be using, was less likely to lose their place since they came to know word/verse placement on the "page."

Targeted Bibliography

- Halamish, Nachman and Katzir, 2018
- Katzir, Hershko and Halamish, 2013
- Kilpatrick, 2015
- Miles, 2015
- Murray, 2017
- Ross, 2023
- Schwartz and Sparks, 2019
- Shaywitz, 2003

To locate these authors' findings, click on this link and scroll down to the icon: "Science of Reading Research: Implications for Hebrew Decoding."

- See Section 3 for specific quotes from the Targeted Bibliography authors listed above. The section with the "Torah Decoding/Chanting" research begins on page 22.
- See Section 2 to access a full bibliography with URLs linking to the sources noted above, as well as others.

Special thanks to #OnwardHebrew practitioner researcher Rabbi Shana Nyer and her Hebrew teacher/tutor, Linda Wolfe, for contributing to this section.

CHALLENGE: RECITATION VS DECODING

IF YOUR LEARNERS RECITE/CHANT PRAYERS OR BLESSINGS WELL, BUT STUMBLE WHEN DECODING:

TRY THIS:	BECAUSE: *All of these "whys" are based either research from the science of reading (whether focused on learning to read English or Hebrew) or #OnwardHebrew's 2023-2025 teacher sprints.*
Reconsider your synagogue's expectations for accurate and fluent decoding. • **Learning to *recite* prayers/ blessings sound-to-print may be a fairer goal in part-time/synagogue settings** than "fluent and accurate *decoding*" of any Hebrew given to the learner. • To paraphrase the sentiments of quite a few education directors involved with #OnwardHebrew: **"A key goal for my program is for learners to gain confidence and competence as pray-ers. We should celebrate that they can chant/sing/recite prayers** because this skill gives them the ability to comfortably participate in *t'fillah*, at 'synagogue speed.'" This is a great example of a learning goal that could better be aligned with an authentic learning task (see page 10, #9, above). • Those who participate regularly in *t'fillah* who can recite prayers AND know how to decode, can be taught how to match the words in their head with the print on the page. **The skill of decoding thus takes on a**	• **Too many children at the end of sixth grade cannot decode well.** "Doubling down" on skill-based practice does not seem to solve the problem, but rethinking expectations and creating a sound-to-print learning model is making a difference. . • **If all one can do is decode, one cannot stay at synagogue speed**. • **Mismatched learning goals between synagogue professionals and their students AND/OR teachers and their students can be problematic.** #OnwardHebrew has hypothesized that synagogues and/or Hebrew teachers may either be overly ambitious about their Hebrew decoding goals (targeting both accuracy and fluency from very part-time learners), or unclear. A student may slow down to focus on accuracy while a teacher may value fluency more. This mismatch of goals may create unnecessary frustrations. • **Reciting prayers, or responding "amen" at the end of blessings, is a Jewish tradition that goes back almost two millennia.** More so, the first formally written *siddur* for general use was generated in the 10th

supporting role, not the diva on center stage.

century CE, by Saadia Gaon, In addition, Gutenberg's printing press was not invented until the mid-1400s. This means that the masses did not have access to the printed page until at least the 15th Century (and probably later) since early manuscripts would have been expensive. It is thought that not until the 1860s was the first *siddur* mass-produced in the United States. This means that *t'fillah* had been an oral tradition prior to the 20th Century Jewish educational goal of "fluent and accurate reading *(sic)*."

- **The science of reading explains that three conditions must be met for learners to become fluent and accurate *readers*:**
  - They have to know all the letters of the alphabet and the sounds they make.
  - They must have phonemic awareness (this means they can hear the various sounds in isolated words).
  - They have to know the target language.

  In part-time/synagogue settings, the more realistic goal is decoding (not reading). Even so, it is **important to acknowledge that many learners have not mastered all their Hebrew letters (*strike one*) AND that they lack Hebrew language proficiency (*strike two*).** In addition, **the prayers we expect them to tackle date back 2000 years, written by adults for adults (*strike three*).** Our *siddur* does not have the accessibility or interest level of *Diary of a Wimpy Kid!* **Bottom line, fluent and accurate decoding is a tough goal to achieve.**

	• **And, think about it – those who read *modern* Hebrew use print without vowel signs; they are not decoding.** Rather, they have to know the Hebrew word or grammatical pattern to be able to read the words on the page and understand them. The skill of decoding is not hugely useful for them.
Teach sound-to-print. Sing, recite or "read" learners a line of Hebrew prior to asking them to tackle it. *See Appendix C for teaching strategies that introduce prayers "Sound-BEFORE-Print."*	**This cues the learners, helping them anticipate the print on the page,** giving them some of the advantage of native language background when reading an English passage. • **Learning is less effective when students are asked to figure out (or guess) how to decode** a word or passage. It is more effective when teachers tell students how to pronounce new or difficult words and phrases.
Offer decoding learning materials with the words of prayers/blessings in order (as compared to randomized lists of decoding practice words on the page).	• **When the ultimate goal is fluent and accurate participation in prayer, learners do not have to build the skill of being able to decode any never-before-seen Hebrew**. Keeping the words in order builds the natural sounds of Hebrew prayers and blessings – words more rhythmically flow one from the other. This is an example of an "authentic and aligned learning task" explained on page 10 (#9) above.
Teach in a "one-to-more" progression:	• **Individual word cards allow children to better focus on the specific elements in a word** (e.g., letters and vowel signs) without other visual distractions. • Quite a few of the "Decoding Think Tank" educators experimented with word cards and/or the one-to-more

• Offer <u>one</u> word on a card so that learners can focus on the details without the distraction of other print on the page. • Add <u>other</u> cards in the line of the prayer being worked on each time focusing on the newly offered word.  • Offer a line of the prayer (i.e., put <u>more</u> words together to be decoded). • Then offer <u>multiple</u> lines.	progression. They all agreed that it **is less overwhelming for learners to begin with word cards, proceed to phrases, and then to lines.** This is a great example of mitigating "cognitive overload" (see page 12 above)
Merge sound and print. Tell students it is not "cheating" to use the words in their head when tackling the print on the page.	• This is the essence of sound-to-print learning.

Targeted Bibliography

- Kilpatrick, 2015
- Miles, 2015
- Murray, 2017
- Schwartz and Sparks, 2015
- Shaywitz, 2003

To locate these authors' findings, click on this link and scroll down to the icon: "Science of Reading Research: Implications for Hebrew Decoding."

- See Section 3 for specific quotes from the Targeted Bibliography authors listed above. The section with the "Recitation vs. Decoding" research begins on page 25.
- See Section 2 to access a full bibliography with URLs linking to the sources noted above, as well as others.

Special thanks to #OnwardHebrew practitioner researchers Rabbi Deborah Helbraun, Stever Kerbel and Rabbi Shana Nyer (along with her Hebrew teacher/tutor Linda Wolfe) for contributing to this section.

CHALLENGE: SLOW AND LABORIOUS DECODING

IF YOUR LEARNERS DECODE HEBREW PRAYERS, BLESSINGS OR TORAH SLOWLY AND LABORIOUSLY:

TRY THIS:	**BECAUSE:** *All of these "whys" are based in science of reading All of these "whys" are based either research from the science of reading (whether focused on learning to read English or Hebrew) or #OnwardHebrew's 2023-2025 teacher sprints.*
See the suggestions in the section on "Recitation vs. Decoding" (starting on page 38).	• **Sound-to-print strategies will help learners who have difficulty decoding**. • Historically, participation in **Hebrew *t'fillah* has been an aural/oral tradition.** De-emphasizing drilling letter-vowel-letter decoding, and instead **focusing on sound-to-print recitation of prayers, may ease the slog of slow decoders**.
Double-check that children really know all their letters and vowel signs. They may be struggling because they have gaps in their learning. **See the suggestions in the sections on** • **Hebrew Letters** (page 16) • **Hebrew Vowel Signs** (page 22) • **Similar Looking Letter Mix-ups** (page 25)	• Not surprisingly to anyone, **it is hard to decode Hebrew if one does not know all the letters and vowel signs.** • Many teachers skimp on letter/vowel sign review at the beginning of the year. **Slowing down to take time to teach, reteach, or refresh student knowledge of these small parts of Hebrew words can help learners move more smoothly through the learning of prayers and blessings.**

Merge sound and print. Make sure that students know that it is okay to use their knowledge of prayers/blessings to tackle the print on the page. **Teach sound-to-print.** Sing, recite or "read" learners a line of Hebrew prior to asking them to tackle it. *See Appendix C for teaching strategies for introducing prayers "Sound-BEFORE-Print."*	• People generally read their native language smoothly because their **familiarity with the language and knowledge of letters and their sounds enable words to become "orthographically mapped"** in their brains. Once this happens, the reader has instant, accurate and forever access to the word and its pronunciation (for example, the words "trial" and "trail" will not need to be decoded again … they are instantly recognized). **This mapping is not possible for most Hebrew learners in our part-time settings**. **BUT if they can recite a prayer, blessing, phrase or word, they can verify that knowledge by keeping it in mind as they decode** the words on the page. No, this is not cheating, but rather a useful strategy.
Offer decoding learning materials with the words of prayers/blessings or Torah verses in order (as compared to randomized lists of decoding practice words on the page). **Consider an activity like simultaneously chanting and walking to the rhythm of a prayer/blessing,** either with students looking at the printed page or aurally/orally. Such an activity helps students connect to a prayer's cadence, as well as improve their pronunciation.	• **When the ultimate goal is fluent and accurate participation in prayer, learners do not have to build the skill of being able to decode any previously unseen Hebrew**. Keeping the words in order builds the natural sounds of Hebrew prayers and blessings – words more rhythmically flow one from the other. This is an example of "authentic and aligned learning tasks" explained on page 10 (#9) above.

Teach Hebrew one-on-one. 	• **Pacing follows the child's learning speed,** not a group's average timing or a teacher's general assumption of pacing. • **Children who are absent can pick up where they left off**, as compared to ending up with a block of missing knowledge or lack of practice because the group has "moved on." • **A teacher can quickly and easily identify any challenges** the learner is facing, rather than letting errors become concretized over time.

Targeted Bibliography

- Ehri, 1998
- Halamish, Nachman and Katzir, 2013
- James and Engelhardt, 2012
- Katzir, Hershko and Halamish, 2013
- Kilpatrick, 2015
- Maiben, 2003
- Miles, 2015
- Ross, 2023
- Schachter, 2010
- Schwartz and Sparks, 2019
- Share and Levin, 1999
- Share, 2004
- Shaywitz, 2003
- White, 2024
- Woods, Davis and Scharff, 2005

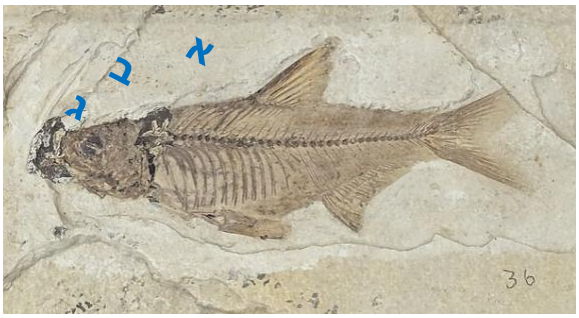
To locate these authors' findings, click on this link and scroll down to the icon: "Science of Reading Research: Implications for Hebrew Decoding."

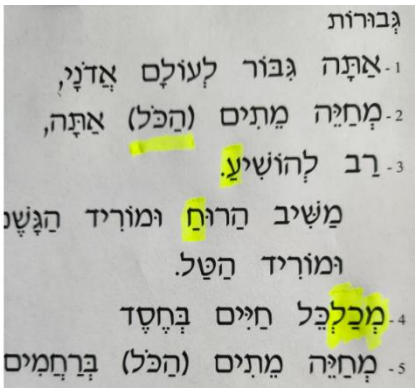
- See Section 3 for specific quotes from the Targeted Bibliography authors listed above. The section with the "Slow and Laborious Decoding" research begins on page 26.
- See Section 2 to access a full bibliography with URLs linking to the sources noted above, as well as others.

Special thanks to #OnwardHebrew practitioner researchers Nancy Abraham, Steve Kerbel and Marci Pick for contributing to this section.

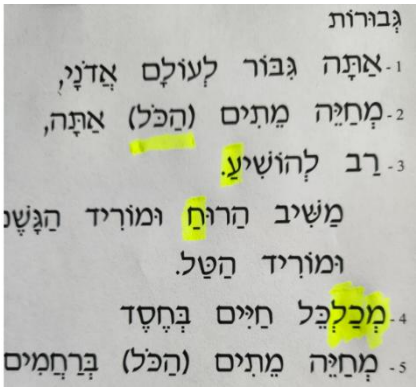
CHALLENGE: "FOSSILIZED ERRORS"

IF YOUR LEARNERS HAVE FOSSILIZED ERRORS, MEANING THAT THEY CONSISTENTLY MISPRONOUNCE A WORD OR PHRASE THAT WAS INCORRECTLY ENCODED IN MEMORY:

TRY THIS:	BECAUSE: *All of these "whys" are based either research from the science of reading (whether focused on learning to read English or Hebrew) or #OnwardHebrew's 2023-2025 teacher sprints.*
Do not worry too much about the impact of incorrect Hebrew learned through recitation. It can be unlearned. 	• **This happens, even in English!** Think about the songs you "knew" all the words to, only to discover that you were wrong. As one example, some fans think that in the song, "Blank Space," Taylor Swift is singing, "All the lonely Starbucks lovers". But, oops, the real words are, "Got a long list of ex-lovers." • **Students who are introduced to decoding at a later age may have fossilized errors** in greater numbers than those who started decoding in third or fourth grade. [This is a hypothesis of a "Decoding Think Tank" member.] It is just a result of more time spent with recitation; it can be unlearned. • **In *t'fillah*, we want participants to feel confident and competent when praying**. Let them sing away without correction! **It is more respectful and impactful to work on correcting these errors in a learning setting** (i.e., with a teacher or tutor), especially one-on-one. • A couple of #OnwardHebrew's 2023-2024 Think Tank experiments

	demonstrated that these errors can be corrected with a little effort.
Listen to learners individually to determine the specific errors they have fossilized. • **Ask each learner to recite/decode a particular prayer/blessing** from a document printed in a **large font**, with **two spaces between words** and **extra white space between lines**. **On your own copy of the prayer, circle or highlight each error**. If a learner makes a mistake (i.e., not deeply embedded, but just an "oops") note that differently from fossilized errors.  גְּבוּרוֹת 1- אַתָּה גִּבּוֹר לְעוֹלָם אֲדֹנָי, 2- מְחַיֵּה מֵתִים (הַכֹּל) אַתָּה, 3- רַב לְהוֹשִׁיעַ. מַשִּׁיב הָרוּחַ וּמוֹרִיד הַגָּשֶׁ וּמוֹרִיד הַטַּל. 4- מְכַלְכֵּל חַיִּים בְּחֶסֶד 5- מְחַיֵּה מֵתִים (הַכֹּל) בְּרַחֲמִים	• **While some errors might be common to the learners, others are personal ones.** [One learner might say וּבְלֶכְתְּךָ correctly, but another might consistently recite it as וּבְלֶפְתְּךָ]. • **Larger font sizes are easier for young children to read/decode.** Also, in studies of English reading, **sans-serif fonts were easier for children to read than serif fonts**. One might hypothesize that less visually complex Hebrew fonts would achieve the same results, making it easier to pay attention to the letter shapes and vowel signs. • In an Israeli study with second graders, **Hebrew reading comprehension decreased when font size was decreased** or line length increased. While <u>reading</u> content is not the same as <u>decoding</u> prayers, font size seems important. Size impacts success.
Consider these strategies: • First, **offer the fossilized word on a word card**, rather than on a full document. **Highlight the fossilized letters/sounds**.  מְכַלְכֵּל • **Have the learner "segment" the word according to the Hebrew conventions**. [See Appendix B: How to Segment Words, as well as the image below.]	• **Learners need to be able to focus on the details** of the word causing issues. **Spotlight the challenging segment by using strategies that clear away distractions**. • **Hebrew lends itself quite well to teaching the learners to focus on** segments (similar to English syllables), rather than focusing only on letters and vowel signs. • **Highlighting the errors seem to cue the brain to slow down and pay attention** to that part of a word, whether the highlighting is present or

- **Offer the learner the full prayer/blessing, with the fossilized letters/sounds highlighted**. Encourage them to pay attention to the print on the page, bringing together the visual (print) with the oral (recitation).



  - Slowly read a segment of the passage to the learner.
  - Next, have the learner slowly recite/decode a few times *with* the highlighting.
  - Then offer a page without the highlighting.

- **Repeat in the next 1-2 learning sessions.**

has been extinguished. **It is also possible that highlighting an error subconsciously signals the student to slow down and pay attention to the passage in general**; that in itself focuses attention on the internal elements of Hebrew words.

- The science of reading tells us that when new readers have all the prerequisites to the reading process (letter knowledge, language familiarity, phonemic awareness) **it takes them one to four times of decoding the word for it to become mapped in their brain, leading to reading fluency**. We cannot achieve this with our part-time Hebrew learners, but **some of the #OnwardHebrew decoding Think Tank experiments indicated that one to four times of working with highlighted letters may be enough to correct the fossilized error**. The teacher-researchers also hypothesized, but did not test, that Hebrew letters with sounds that are unfamiliar in English (e.g., צ ע כ ח) have a greater chance of being incorrectly learned. If this proves true, extra diligence when working with these letters is warranted.

- **Learning is less effective when students are asked to figure out (or guess) how to decode** a word or passage. It is more effective when teachers tell students how to pronounce new or difficult words.

Targeted Bibliography

- Halamish, Nachman and Katzir, 2018
- Kilpatrick, 2015
- Miles, 2023
- Ross, accessed 2023
- Schwartz and Sparks, 2019
- Shaywitz, 2003
- Woods, Davis and Scharff, 2005

To locate these authors' findings, click on this link and scroll down to the icon: "Science of Reading Research: Implications for Hebrew Decoding."

- See Section 3 for specific quotes from the Targeted Bibliography authors listed above. The section with the "Fossilized Errors" research begins on page 27.
- See Section 2 to access a full bibliography with URLs linking to the sources noted above, as well as others.

Special thanks to #OnwardHebrew practitioner researchers Linda Duke, Rabbi Deborah Helbraun and Ivy Schwartz for contributing to this section.

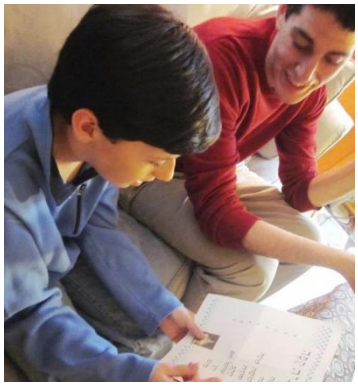
CHALLENGE: MIDDLE-OF-WORD MISTAKES

IF YOUR LEARNERS GENERALLY PRONOUNCE THE BEGINNING OF WORDS CORRECTLY, BUT DECODE THE MIDDLE INCORRECTLY:

TRY THIS:	BECAUSE: *All of these "whys" are based either research from the science of reading (whether focused on learning to read English or Hebrew) or #OnwardHebrew's 2023-2025 teacher sprints.*
• **Offer each word on a word card**, rather than on a full document.  ○ **Read the word aloud to the learner.** ○ **Next, have the learner "segment" the word** according to the Hebrew conventions. [See Appendix B: How to Segment Words.]  ○ You, the teacher, should **read the word aloud one more time** with the learner watching the print. ○ Finally, **ask the learner to decode it**. Repeat the 4 steps above with 1-2 other letters that are not being decoded accurately. [*More than 3 total corrections will be overwhelming to the learner*.] ○ **Then, offer the learner the full prayer/blessing, with highlighted letters/sounds** that created confusion. ○ **Have learners recite/decode the highlighted prayer** a few times. ○ **Then offer a page without the highlighting**.	• **Learners need to be able to focus on the details of the word causing issues**. Use strategies like large font on a word card. The goal is to trigger attention to the challenging elements. • **Highlighting the errors is assumed to cue the brain to slow down and pay attention to that part of a word.** This is true for sections of words that are currently highlighted and for word-sections that had been highlighted, but no longer are. • While not from the science of reading research, other studies note **the powerful impact of learning that is retrieved** (for example, looking at words with letters that were previously highlighted, but not currently). • The science of reading reports that **when new readers have all the prerequisites to the reading process (letter knowledge, language familiarity, phonemic awareness) it takes one to four times of decoding the word for it to become mapped in their brain** leading to reading fluency. We cannot achieve this with our part-time Hebrew learners, but **some of the**

Repeat in the next 1-2 learning sessions.	**#OnwardHebrew decoding Think Tank experimental sprints indicated that one to four times of working with highlighted letters may be enough to correct the issue.**

Targeted Bibliography



- Barshay, 2023
- Kilpatrick, 2015
- Miles, 2015
- Murray, 2017
- *Reading Horizons*, accessed 11/2023
- Schwartz and Sparks, 2015
- Shaywitz, 2003

To locate these authors' findings, click on this link and scroll down to the icon: "Science of Reading Research: Implications for Hebrew Decoding."

- See Section 3 for specific quotes from the Targeted Bibliography authors listed above. The section with the "Middle-of-Word Mistakes" research begins on page 29.
- See Section 2 to access a full bibliography with URLs linking to the sources noted above, as well as others.

Special thanks to #OnwardHebrew practitioner researchers Linda Duke and Rabbi Deborah Helbraun for contributing to this section.

CHALLENGE: GETTING "LOST" IN THE *SIDDUR*

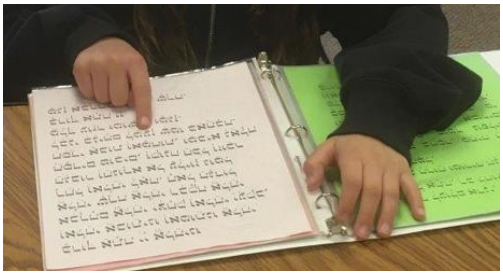
IF YOUR LEARNERS CAN RECITE PRAYERS/BLESSINGS BUT CANNOT EASILY FIND THEIR PLACE IN THE *SIDDUR*:

TRY THIS:	**BECAUSE:** *All of these "whys" are based either research from the science of reading (whether focused on learning to read English or Hebrew) or #OnwardHebrew's 2023-2025 teacher sprints.*
Intentionally help learners transition from your regular learning materials (hopefully in large font, with an extra space between words and more white space between lines) to learning materials that are laid out according to the synagogue's regular *siddur*. • Offer students a large-font, extra white space version of the prayer, phrased as in their congregational siddur. This might be from a large-print *siddur* or on a page with large font formatted into the same spacing as their prayerbook. *Note that the Word documents, linked below from the JECCMarketplace (green font) allow such manipulation.* • Encourage students to keep their eyes on the words as they read/recite. #OnwardHebrew has developed prayer sheets with the formatting suggested above for free and immediate download. • For PDFs only, scroll down on this page: https://tinyurl.com/Teacher-Tutor-Resources • For a choice of PDFs and Word documents, go to https://JECCMarketplace.com and search on the website for "Large Print Prayers."	• **Larger font sizes are easier for young children to read/decode.** Also, in studies of English reading, sans-serif fonts were easier for children to read than serif fonts. One might hypothesize that less visually complex Hebrew fonts would achieve the same results, making it easier to pay attention to the letter shapes and vowel signs. • In an Israeli study with second graders, **Hebrew reading comprehension decreased when font size was decreased** or line length increased. While reading content is not the same as decoding prayers, font size is impactful on success. • Research from the science of reading reports that **early readers (and maybe all readers) benefit from attention to the visual layout of the page**. • In interviews attained during one of the experimental sprints from the #OnwardHebrew decoding Think Tank, children shared strategies for finding their place in the *siddur*. One was that **when familiar with the *siddur*'s layout (as compared to the**

	layout of their learning materials), some children used that knowledge to anticipate their place on the page.
Asking children to explain their strategies leads to powerful learning for them, as well as their teacher/tutor. • Tell students that you will start reading/reciting somewhere in the prayer/blessing and continue until the end. Ask them to listen and then put their finger on the word they first can identify on the page, continuing while you read. Create a discussion: ask students to share their strategies for locating their place in the *siddur*. How might they replicate this when in a worship service and "get lost?"	• **One of the "Decoding Think Tank" educators used the strategy of asking her learners "why" or "how" several times.** Not only did she learn much from the students, but they learned from each other as well. [*For a full description of her lesson and videos with student explanations, see "Choose Your Own PD Adventure" resource, pages 15-16.* https://tinyurl.com/Hebrew-PD] • **Asking learners to reflect aloud can challenge teachers' assumptions of what is going on in the learning process.** What we teach may not be what students are learning.

Targeted Bibliography

- Halamish, Nachman and Katzir, 2018
- Katzir, Hershko and Halamish, 2013
- Miles, 2015
- Ross, 2023
- Woods, Davis and Scharff, 2005



To locate these authors' findings, click on this link and scroll down to the icon: "Science of Reading Research: Implications for Hebrew Decoding."

- See Section 3 for specific quotes from the Targeted Bibliography authors listed above. The section with the "Getting Lost in the Siddur" research begins on page 31.
- See Section 2 to access a full bibliography with URLs linking to the sources noted above, as well as others.

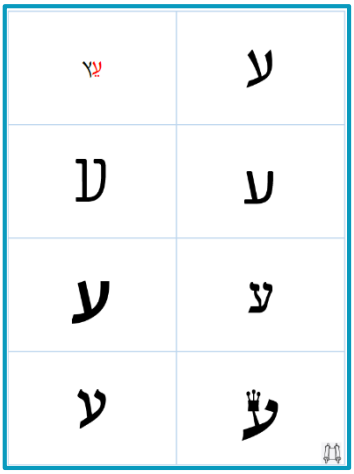
Special thanks to #OnwardHebrew practitioner researcher Linda Duke for contributing to this section.

APPENDIX A: WHAT WE NOW KNOW ABOUT TEACHING DECODING

1. **Teach in a one-on-one learning situation where possible**. This means one teacher and one learner. Think Tank members who taught learners individually noted the advantages over pairs, small groups or large groups.

2. **Offer learners the opportunity to identify distinguishing characteristics of new letters**. For example, present a new letter in multiple fonts[11] and ask learners to figure out (for example), "What makes an *Ayin* an *Ayin*?" When a new letter is similar to one already introduced, ask learners to identify what distinguishes the letters from each other.

   In addition, Think Tank members hypothesized that slowing down to do this kind of learning activity in the *beginning* of a learner's Hebrew decoding journey might help prevent later challenges.



3. **Teach learners the names of the letters and vowel signs** since it helps them focus on which one you are referring to. There are many pairs of Hebrew letters that offer the same sound, so saying "this (*no name*) letter is a V-sound" might confusingly refer to a *Vav* or *Vet*. Or "this is the letter we'll call Tiny Tail" (hmm, is it the *Bet* or *Tav*?). Dr. Lifsa Schachter[12] adds that knowing the names of the letters and vowel signs gives Hebrew learners power over the print on the page.

4. **Teach students to write letters and vowel signs and then assess whether they can do so from memory** without referring to a version of that letter in front of them. This builds (and demonstrates) deeper learning, one that asks learners to produce knowledge, rather than just identify it. A learner shown a *Tet*, has a 50% chance of guessing the letter name correctly when they are not sure if it really is a *Mem* or *Tet*. And, the act of retrieving and producing information (i.e., the shape of the letter) more deeply embeds that knowledge in the brain.

[11] A resource with seven fonts per Hebrew letter may be downloaded from here: https://tinyurl.com/AlefBet-fonts

[12] Professor emerita of Jewish education at Siegal College of Jewish Studies and creator of Hebrew Through Movement.

5. **In early stages of learning, or where students are struggling, offer words in large font, one word per card**. This clears away distractions, allowing learners to focus on the specifics of the word. Teachers or tutors may then use the cards to build phrases. *Note that in some of the science of reading research reports, these are called "flashcards," a phrase literally defined as a card that is briefly flashed before a learner. But the recommendation by researchers is for students to work for a period of time with each card. Thus, it seems more appropriate to call these "word cards" rather than "flashcards."*

6. **Employ sound-to-print strategies.** Before students are asked to read a word or line, offer them the power of knowing its sounds by reading it to them first. If working on a specific prayer or blessing, recite or chant it at the beginning of the learning session, as well as at the end. This is not "cheating" – it gives students some of the advantage they have when reading in their native language. Sound-to-print also means offering learners prayer practice with the words in order, not randomly arranged in columns and rows.

7. **Offer correct pronunciation, rather than requiring learners to slowly and painfully sound out Hebrew words.** There is no advantage to students laboriously decoding words, whether with prayers or Torah verses. In fact, for the latter, students may do just as well first learning to chant the words, rather than being asked to learn to decode the verses first.

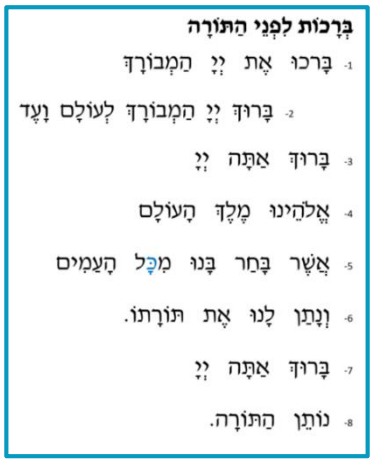
8. **Offer multiple opportunities for learners to recite prayers and blessings with the goal of helping them learn to recite by heart**.[13] The ability to recite/sing is a key skill, for if all one can do is decode, it is hard to participate in *t'fillah* at "synagogue speed." These learning opportunities include not only regular participation in worship, but also intentional use of #OnwardHebrew's "Sound-BEFORE-Print" approach in Appendix C. Yes, students who easily recite prayers and blessings but cannot yet decode Hebrew, might end up with "fossilized errors." Happily, several Think Tank participants discovered quite a few strategies that successfully (and relatively easily) correct recitation errors.
.

[13] The video "Does Sound-to-Print Learning Really Work?" demonstrates the difference in decoding when children are familiar with a prayer and when not. https://tinyurl.com/Does-S2P-work

9. **Align Hebrew teaching strategies with Hebrew learning goals.** Dr. Netta Avineri observes that teachers regularly employ learning activities that do not connect to stated educational goals or authentic ("real life") actions. For example:
   - Decoding a page of random Hebrew words set up in four columns and six rows is not an authentic learning task when the goal is developing competence and confidence with *t'fillah*. On the other hand, learning is authentic and aligned when the Hebrew words are kept in the order of the prayer being studied.
   - Authentic and aligned learning tasks would look different when the goal is chanting Torah at one's B'Mitzvah, as compared to expecting the learner to achieve a lifetime ability to chant any Torah portion.

10. **Choose materials where the font size is larger than normal, where there are two spaces between words, extra white space between lines and phrased to match the flow of reading/chanting**. In addition, a san-serif font is thought to be easier for a reader than serif. The visual presentation on the page makes a difference with decoding ability, especially for newbies.

    [*A crowded layout on the page and a normative (small) font may be a reason why a number of students stumble in their initial decoding assessment with clergy or their B'Mitzvah tutor.*]



11. **Intentionally help learners transition from the spacing and print of their learning materials to the line spacing in their synagogue's *siddur*.** If they never use their *siddur* (or its layout) they will have a harder time finding their place in a prayerbook during *t'fillah*. It is equally important to offer materials that parallel the layout of verses in a Torah scroll.

12. **Listen carefully to learners' comments (even ones not solicited by a teacher's question) and, where appropriate, open conversation.** A child who says in exasperation, "I can't figure out where we are in the service" would probably benefit more from a group conversation that shares strategies for finding one's place than from a teacher who makes a mental note to more frequently "patrol" during worship to ensure that fingers are on the correct word. Ask questions along the line of, "what do you think?" "why do you think so?" and "what learning strategy works best for you?" Hebrew learning is more than decoding drills and activities that focus on the meaning of prayers and blessings.

APPENDIX B: HOW TO SEGMENT HEBREW WORDS

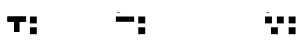
In elementary school, children generally learn how to identify the number of syllables in an English word by clapping: the number of claps equals the number of syllables. For example, the word “holiday” produces three claps, thus three syllables. Hebrew words are divided differently and so in the world of #OnwardHebrew, we call the comparable divisions “segments.”

Dr. Lifsa Schachter teaches that there are three basic rules for dividing Hebrew words into segments:

- Each segment must have a full vowel sign.

- A *Sh’va is* not counted as a full vowel sign.

- A *Hataf* is also not counted as a full vowel sign.



Based on those three rules, how many segments are in the following Hebrew words?

נֵר

לָקוּם

תְּפִילָה

שָׁבוּעוֹת

בְּמִשְׁמְרוֹתֵיהֶם

Answers are on the next page.

The number of full vowel signs, and thus segments, are:

נֵר	One full vowel sign, one segment
לָ|קוּם	Two full vowel signs, two segments
תְּ|פִי|לָה	Two full vowel signs, two segments
שָׁ|בו|עוֹת	Three full vowel signs, three segments
בְּ|מִ|שְׁ|מְ|רו|תֵי|הֶם	Four full vowel signs, four segments

And if you think about it, this way of segmenting Hebrew words allows for more accurate pronunciation. Looking at the third word:

- A person decoding it by the English way of marking syllables would say: *t – fi – lah.*
- But a native speaker and those "in the know" give a more nuanced way of pronouncing it: *t'fi – lah.*

And looking at the last word:

- A person decoding it "syllable-by-syllable" (per the English) would use six beats: *b – mish – m – ro – tay – hem.*
- But someone who knows how to recite *Ma'ariv Aravim* (the blessing this comes from) would use four beats: *b'mish – m'ro – tay – hem.*

For an activity to introduce segmenting to your learners, check out this resource: https://tinyurl.com/Segmenting-Hebrew.

APPENDIX C: SOUND-BEFORE-PRINT

#ONWARDHEBREW has gathered data[14] that demonstrates the benefit of learning prayers aurally and orally before learning to decode the printed page. Since this practice has been slow to catch on in synagogue/part-time Hebrew programs, this resource was developed to support educators who would like to teach their students the words of Hebrew prayers first, without use of a page of Hebrew font or transliteration.

There are two parts to this short document – a LIST OF ACTIVITIES that lessen the burden and boredom of reciting lines of Hebrew over and over again and A SAMPLE LESSON (pages 64-66) that demonstrates how the ideas can be integrated for use in a class session or two.

IN USING THIS RESOURCE, NOTE THAT

- The activities are written for groups of students, but many are easily adapted for one-on-one learning. They may be used with in-person learning and many will work well in a virtual environment (e.g., Zoom).
- Some of the activities have a fair amount of movement, which could create behavior challenges for some children. To mitigate these:
    - Choose activities that you feel your learners can reasonably handle.
    - Use teen assistants to anticipate potential challenging behavior.
    - Make sure your learners know that you will stop any activity that becomes unsafe.
- Teen assistants could be empowered to lead some of these activities. They would have fun!

AFTER using sound-before-print activities, when students begin working on decoding the printed text of the prayer/blessing, be sure to tell them that they may use the words now in their head to help them decode the print on the page. [Note that one of the reasons we can read English smoothly is because we know the words. Sound-BEFORE-Print gives our Hebrew students that advantage.]

BEFORE MOST OF THE ACTIVITIES CAN BE USED FOR A SPECIFIC PRAYER, THE STUDENTS NEED TO BE BRIEFLY INTRODUCED TO THE PRAYER'S HEBREW. You should first recite/sing a small segment, repeat it, have the learners echo it back, and then, over time, build up to the full text. Here is how this might work with the first three words of *Oseh Shalom*:

[14] #OnwardHebrew video: "Does Sound to Print Hebrew Learning Really Work?" https://tinyurl.com/Does-S2P-work

1. Clearly pronounce a word and have students repeat it back. For example:
   Leader: עוֹשֶׂה
   Students: עוֹשֶׂה
   Leader: שָׁלוֹם
   Students: שָׁלוֹם

2. If a word is long or complicated, break it down into segments so that learners clearly hear all the letters and vowel signs within.
   Leader: בְּמְ
   Students: בְּמְ
   Leader: רוֹ
   Students: רוֹ
   Leader: בְּמְרוֹ
   Students: בְּמְרוֹ
   Leader: מָיו
   Students: מָיו
   Leader: בְּמְרוֹמָיו
   Students: בְּמְרוֹמָיו

3. Build up to a few words or phrases.
   Leader: עוֹשֶׂה שָׁלוֹם בְּמְרוֹמָיו
   Students: עוֹשֶׂה שָׁלוֹם בְּמְרוֹמָיו

THEN, ONCE STUDENTS HAVE THE BASIC SOUNDS OF A PRAYER OR BLESSING (they do not have to be perfect), **REINFORCE THE PRAYER AURALLY/ORALLY USING ANY OF THE ACTIVITIES, BELOW.** The goal is to help learners acquire great familiarity with the prayer so that when they finally work with the Hebrew print, they can match what is now in their head to the words on the page.[15]

1. Copycat

Recite a line in a dramatic way, for example: mysterious, silly, confident, sad, slow and drawn out, etc. Have students copycat your exact tone and actions. [*Teen assistants would be great at making a list of dramatic voice possibilities for class use. In addition, teens willing to practice in advance could offer the lines to students quite dramatically.*]

[15] We learn to read our native language fluently and accurately because we know a large number of English words and know how they are pronounced. These activities give our learners the (almost) same benefit with Hebrew prayers and blessings.

2. **Echo Chain**
   Say one line of the prayer and have one student repeat it. Then ask a second student to repeat the line, passing the echo down the line or around the room. A variation could be to have the group mimic an echo – the first person says it strongly, the next a little softer, the next even softer, etc.

3. **Whisper-Talk-Shout!**
   Start by offering words, phrases or lines using different volumes – whisper, normal, shout. Ask the students to repeat what you say, matching your volume. Then, ask them to recite the prayer or blessing, following your cues for the level of volume (*perhaps pretend to push on the volume buttons of a remote control so that students know when to shift the sound up or down*).

4. **Freeze!** *For those who have learned Hebrew Through Movement, call this*: לַעֲצוֹר *(la'atzor, stop)*
   As teacher, clearly recite the words/phrases previously learned while everyone walks in a circle. When you (or a teen assistant) say "Freeze" (or לַעֲצוֹר) everyone must freeze and say the next word or next line (whatever you choose).

5. **Catch!**
   Say the first word in the prayer/blessing and then roll or toss a soft/light ball to one of the learners. That person says the second word or phrase in the prayer. They then roll or lightly toss the ball to another student who offers the third word. Keep the pace up so that students can get into the flow of reciting the prayer/blessing. For 1-on-1 learning, simply pass or roll the ball between you.

6. **All Together, Now!**
   Recite a prayer or blessing together, like a chorus, but use different styles:
   - Whisper
   - Opera voice
   - Robot voice
   - Call and response
   - Etc.

   Note: Teen assistants could develop a robust list! Bonus might be standing on chairs or on the steps of your bimah (central part of the sanctuary).

7. **Conducting the Choir**
   Divide students into two or more *k'vutzot* (קְבוּצוֹת – groups). Say a phrase and ask one *k'vutzah* (קְבוּצָה, group) to repeat it. Say the next segment/phrase for another *k'vutzah* to repeat. Continue until each *k'vutzah* has had a chance to participate AND the prayer/blessing being worked on has been heard/repeated at least twice.

Then, take the stance of a conductor, say a line and point to a *k'vutzah* randomly. Their task is to repeat it. Continue with other phrases/lines, pointing each time to a different *k'vutzot* to repeat.

Finally, without you reciting the opening words, point to a *k'vutzah* to recite the first line of the prayer and then point to other *k'vutzot* to recite the second line. Continue until the end.

8. Last One Standing

After students learn a phrase (or two) from a prayer or blessing, have them all stand up. In turn, ask each student to say one word from the phrase (it is okay to prompt them if needed). The person who says the last word in the sequence sits down. Continue playing with those still standing, one word at a time. Again, the person who says the last word sits down. The last person standing wins the game! If you play again (yes, please!), the person who won the last round may start off by reciting the first word in the sequence. A video that demonstrates this activity is here.

9. We've Got Rhythm!

Use claps, drums, tambourines or feet stomping to create a slow beat that matches the pacing and (perhaps) mood of the prayer being worked on. Have learners chant the prayer with the rhythm. The beat may have to be slowed down, but eventually might be sped up to better match "synagogue speed." This activity could also be done with students marching around or dancing to the beat of the rhythm.

NOTE: Do not create a beat that matches the segments/syllables of words, but rather create one that matches the rhythm of normal recitation. For example, if working on the middle of Avot V'Imahot, the beats (indicated by ^) might be:

הָאֵל הַגָּדוֹל
^ ^

הַגִּבּוֹר וְהַנּוֹרָא
^ ^

10. Starting with a Whisper

Ask one student to whisper the first line or phrase. Then have the next student join in, also whispering. Keep going until the whole group is whispering together.

Then shift to normal voices and perhaps ending with projected voices as actors might use on stage in a theater.

11. Oy, I Forgot!

The leader starts by reciting a prayer or blessing (the students just listen), then stops in the middle with an “oy, I forgot” look on their face and the students fill in the next word or line. This could be done as a group, or as individual students who are called on.

12. Oopsie!

The leader recites the line with an intentional mistake. The students have to catch the mistake, correct it and recite the full line from the beginning.

****

מִי כָמֹכָה

(a sample lesson)

Note that this lesson introduces מִי כָמֹכָה aurally (by listening) and orally (by speaking). It is assumed that the students have had a lesson or two on the meaning of this song/prayer prior to working on the Hebrew. Depending on your available time and pacing, the nine steps offered below might be accomplished in one lesson or split into two or more.

STEP ONE: Introduce the first phrase

Tell students that you'll be saying one line of the prayer and that you would like them to listen for any familiar words.

(Slowly, clearly)

מִי כָמֹכָה בָּאֵלִים יְהוָֹה

Check to see if anything sounds familiar – there is a chance that students will recognize the last word, *Adonai*, meaning God. Say the word again and have them repeat it.

Break the line into segments, offering each word slowly and clearly one at a time and having the students repeat it, call-and-response. [*If your students are not too familiar with this prayer, break it down as offered below. But, if they have sung this before, the learning process does not have to be so detailed.*]

מִי

כָ
מֹ
כָמֹ
כָה
כָמֹכָה
מִי כָמֹכָה

בָּאֵלִים
יְהוָֹה
בָּאֵלִים יְהוָֹה

מִי כָמֹכָה
בָּאֵלִים יְהוָֹה
מִי כָמֹכָה בָּאֵלִים יְהוָֹה

.

STEP TWO: Copycat

Remind students that מִי כָמֹכָה is found in the Torah. It is the song that was sung after Moses, Miriam, Aaron and the Israelites escaped Egypt and crossed the parted waters of the Reed Sea. Ask students to offer some emotions the Israelites might have felt when standing safely on the other side of the waters. With the emotions that students

suggest, say the line dramatically using that feeling, in voice and action. Thus, if the students said they would have been amazed, offer the line with big eyes and a surprised tone – then, have them copycat you. Repeat with a number of emotions.

STEP THREE: Introduce the second phrase

As you did before (or with any modifications you wish), introduce the second line:

מִי כָּמֹכָה נֶאְדָּר בַּקֹּדֶשׁ

STEP FOUR: Echo Chain

Say the first two words of this phrase (*mi kamo<u>kh</u>a*) in a normal voice and in turn, ask each student to repeat it a little softer than the person before, as an echo would fade out. Repeat with the next word (*ne'edar*) and then with the last word (*ba-kodesh*).

Then, do the echo chain with the entire first line (learned in STEP ONE) and then with this second line (introduced in STEP THREE).

STEP FIVE: Introduce the last phrase (*or, if you feel that two lines are enough, move onto STEP SEVEN*)

As you did before (or with any modifications you wish), introduce the third line. Before you begin with the repetitions, you may wish to tell students that this line offers powerful praise to God for bringing them to freedom after being in Egypt for so long. The lines say that God is:

נוֹרָא תְהִלֹּת ("really awesome")
עֹשֵׂה פֶלֶא ("Maker of wonders")

STEP SIX: Start with a Whisper (*being in awe*)

Say the first word (*nora*) in a whisper and have everyone whisper it back. Repeat the whisper. Repeat for the other three words (*t'hilot, oseh, feleh*). Then say the first two words together (*nora t'hilot*) in a whisper – ask the first student to whisper them both with you, then have the next person join in with the two of you, then add the next student. Repeat for the last two words together (*oseh feleh*).

STEP SEVEN: Freeze!

Have everyone stand in a circle and start walking in a clockwise direction. As teacher, start reciting the three lines from the beginning and at some random point say "Freeze" (or לַעֲצוֹר). Everyone together has to say the next word in the sequence. Repeat several times. Option: ask for two students to say the next word together, instead of the whole group.

STEP EIGHT: Last One Standing

Ask everyone to stand up. In turn, each student says one word (in order) from the three lines you have taught (it is okay to prompt them if needed). The person who says the

last word (פֶּלֶא) sits down. Those that are still standing continue to repeat the line word-by-word. The winner is the last one standing.

Reset the game by asking everyone to stand up again and start, word-by-word – the person who "won" the last time gets to say the first word. Feel free to repeat this game another time or two.

STEP NINE: Summary

Recite all three lines together – confidently and feeling awesome in thanks for God saving the Israelites from their life in Egypt. [*If your students are working on decoding skills, now is the time to offer the printed prayer. How do they do?*]

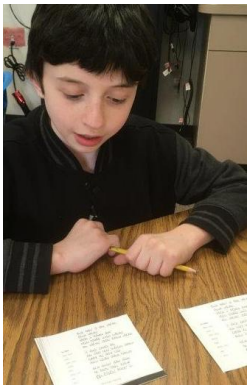
APPENDIX D: AN INVITATION

As explained earlier, two groups of Jewish educators participated in either #OnwardHebrew's 2023-2024 Think Tank OR its 2024-2025 Community of Practice. These were both devoted to researching Hebrew teaching practices in part-time/ synagogue educational settings. Educators developed hypotheses based on their understanding of findings from the science of reading with native language learners. Then they developed Hebrew-focused teaching "sprints" (experiments). The process was interesting, exciting and at times frustrating, but these educators learned much. Their new understandings form the basis of this "Conquering the Challenge of Hebrew Decoding" resource for part-time Hebrew teachers, especially those in synagogue settings.

For all these educators accomplished, there is so much more to learn, which is why YOU are invited to get into an experimental frame of mind to address the teaching challenges you face with your own learners. Much like "citizen scientists" who expand the observational capabilities of astronomers, ornithologists and entomologists, your thoughtful role as an educational-experimenter will advance the field of Hebrew education in part-time/synagogue settings.

We invite you to:

- **Identify a Hebrew learning challenge** (see pages 15-52, above) with which your students (and you!) are struggling.
    - Hebrew letters
    - Vowel signs
    - Similar looking letter mix-ups
    - *Siddur* decoding
    - Torah decoding/chanting
    - Recitation vs. decoding
    - Slow and laborious decoding
    - "Fossilized errors"
    - Middle-of-word mistakes
    - Getting "lost" in the *siddur*



- **Implement a strategy** (or two) from the "Try This" column on the left; **keep track of results.**

- **Reflect on your findings** and **share on the #OnwardHebrew Facebook group.**

You may do this "solo" or collaborate with other Hebrew teachers/tutors in your education program, forming your own impactful think tank. A fill-in-by-hand planning worksheet is on pages 68-99 of this booklet. Or, you may download and type on this Google Doc (yes, you want to click on the "make a copy" button).

PLANNING WORKSHEET

1) Read through the list of challenges and pick one that resonates with you.
I will be experimenting with this challenge category:

2) Find <u>one</u> strategy in the LEFT column of the challenge pages that you would like to try with your learners. [*You may want to highlight or underline the strategies that interest you, then choose one*.] Also, read through the corresponding "Because" list in the RIGHT column so you understand why this strategy might be helpful to your learners.

I will be trying this strategy (Ideally spread over 3 teaching periods or more)	**Here is the prep I need to do:** (Besides gathering and setting up learning resources, prepare a way to assess success; your education director may be able to help you with this)

3) Keep track of the results of your experiment on the chart on the next page. When done, reflect on your findings – what did you learn?
I discovered that:

I now find myself wondering:

4) Consider your next steps. Feel free to check off more than one:

- ☐ **I (will)(will not) continue to use this strategy in my teaching.**
- ☐ **I will modify the strategy and try again.**
- ☐ **I will choose a different strategy from this challenge category to try.**
- ☐ **I will choose a different challenge category to experiment with.**
- ☐ **Other:**

Page 2 of Planning Worksheet

Add a new row for each new sprint

A form for tracking sprints (teaching activities) and recording results

The strategy	Name(s) of student(s)	The results (e.g., 3 times out of 4 they decoded correctly)	Student feedback on the activity and/or what they learned

APPENDIX E:

Hebrew learning in synagogues: A call for change

By Nachama Skolnik Moskowitz in eJewishPhilanthropy, August 31, 2023
https://ejewishphilanthropy.com/hebrew-learning-in-synagogues-a-call-for-change/
(the online article has active links)

No need to go running for the ice buckets, but I'm officially throwing out a challenge to all involved in synagogue/part-time Jewish education **to lower the emphasis on, and decrease the amount of time devoted to, Hebrew decoding.** We are a quarter of the way into the 21st century, but still holding onto a last-century Hebrew learning goal – the fluent and accurate "reading" of Hebrew prayers. No, I'm not suggesting that we stop teaching the *AlefBet*, nor Hebrew decoding skills. Rather, I am challenging us to expand our Hebrew learning goals.

Let's start with three definitions:

- ***Reading*** is a process by which a person gains meaning from print. Synagogue professionals often talk about teaching children to read Hebrew, but as will be explained below, that's an unfair goal in a part-time setting.
- ***Decoding*** is the sounding out of words letter-by-letter, syllable-by-syllable. Children in synagogue education programs spend much of their time doing this. It's a yawner!
- ***Reciting*** is a memorized process, whether purposefully done (like memorizing a poem) or a product of repetitive hearing. Recitation has the potential to empower those who utter the words and those who listen.

How does someone become a fluent reader in their native language? Research on the "science of reading" explains that fluency develops because of a process called orthographic mapping. Emerging readers start by learning the letters and slowly decoding words, but soon, a bit of "magic" happens as pronunciation and meaning get linked with the sequence of the letters. Words become mapped in the brain and are instantly accessible to the reader - no need to decode them anymore. A typically developing third grader's brain has mapped 3,000-8,000 words and by twelfth grade, that same child has instant access to over 80,000 words. Mapping enables fluent, accurate and meaningful reading. Interestingly, orthographic mapping does not seem to be a taught process, though certain preconditions allow words to be snapped into memory. [For details, check the articles, "At a Loss for Words" https://ejewishphilanthropy.com/hebrew-learning-in-synagogues-a-call-for-change/ and "How Hard Can it Be?" https://www.onwardhebrew.org/blog/how-hard-can-it-be]

Not surprisingly, students in synagogue settings do not have the prerequisites to achieve orthographic mapping in Hebrew, especially when the time is short and prayers and blessings offer a high level of linguistic difficulty. The goal of "fluent and accurate reading" is a misnomer; our synagogue learners cannot be expected to read Hebrew.

Is fluent decoding a good goal for synagogue education? While we know plenty of children who can decode Hebrew well-enough, conversations with education directors tell of too many sixth graders who struggle with smooth decoding. Unfortunately, both the end goal (decoding) and the means (more decoding), have remained relatively unchanged over the years. The definition of insanity - doing the same thing repeatedly and expecting different results - explains why we have not yet solved the decoding conundrum.

In addition, reading research offers some important perspectives on those who struggle with decoding:

- **When students with deficient decoding skills** (*like our part-time Hebrew learners*) are given difficult reading materials (*like traditional Jewish prayers written by and for adults 500-2000 years ago*), the results are "unrewarding early reading experiences." Thus, it is easy to imagine that in Jewish educational settings, unrewarding early Hebrew learning experiences taint feelings toward Hebrew in general and prayer in specific. Strike one.
- **When learners struggle to decode** (i.e., are not yet reading fluently), their working memory gets overwhelmed, making it hard to focus simultaneously on the print and on comprehension. Their brain is on overdrive as they slowly and sometimes painfully string together the letters while trying to make sense of the words. It may be reasonable to extrapolate that learners slogging to decode prayers may not have the mental energy to connect with the more uplifting spiritual or communal aspects of *t'fillah*. Strike two.

So, if practicing the skill of decoding can be unrewarding at best and uninspiring at worst, how might our learners become competent and confident pray-ers? One clue to this question's answer is wrapped up in Jewish history. For two millennia, prayer was an aural/oral tradition. A designated prayer leader led the service and worshipers recited along, or simply responded "amen." In more recent decades, with prayerbooks in hand, many synagogue educational programs began to expect that learners master the decoding of Hebrew prayers first, before learning to recite or sing them. This uncontextualized decoding is difficult and uninspiring. Strike three.

There is wisdom in introducing prayer as a spiritual experience (*kavannah*) in children's native language, as well as praying traditional Hebrew prayers (*keva*) via aural/oral repetition prior to introducing print. This sound-to-print (S2P) learning honors language development in our children who spend years hearing and speaking English before learning to read. Part-time Jewish educational programs can help children become competent and confident pray-ers by enabling them to not only hear and recite prayers/blessings, but also to match the words and prayers they know by heart to the print on the page.

Is S2P realistic in part-time Jewish settings? In early 2018, a new paradigm for Hebrew learning and engagement began spreading throughout North America, one that introduces Hebrew sounds before teaching children to decode (i.e., the print). Called #OnwardHebrew, its 58 educational programs (touching over 8,000 children) have been expanding the goals of Hebrew learning beyond the printed page. They create Hebrew-rich learning opportunities by:

- teaching Hebrew language kinesthetically via Hebrew Through Movement
- infusing "Jewish Life Vocabulary" into English sentences ("*Kol hakavod*, Michael. You did a great job")
- scheduling regular, meaningful Hebrew worship experiences

"All In" #OnwardHebrew educational programs introduce decoding in fifth grade or later, building upon a foundation of Hebrew language and sounds, with teachers learning to shift their traditional teaching approach to one that honors S2P learning. Directors report that #OnwardHebrew students exhibit energy and excitement for Hebrew learning and show confidence and competence when participating in *t'fillah*. They also have more time for compelling and relevant Judaic learning.

And so, a call for change! Hebrew has the potential to touch our children's hearts if we expand our learning goals, moving beyond an almost singular focus on prayers. I challenge educators and clergy to invite stakeholders to new conversations about Hebrew learning goals and to reconsider their assumptions about successful Hebrew learning.

I also challenge colleagues to discover ways to create a more symbiotic relationship between Hebrew recitation and decoding. If a child can recite/sing *G'vurot*, can we not count that as an equal success to decoding it? And once a child can recite *G'vurot*, how can we help them complement their oral mastery of the blessing with the printed words on the page? This is relatively new territory – it needs all of our brain power.

The gauntlet has been thrown down! On behalf of our learners, will you accept the challenge?