

Using Texting to Help Families Build Their Children's Vocabulary at Home

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Discover how texting can be an effective home–school communication tool to communicate with parents and other caregivers to support students' learning.

Texting is emerging as a promising tool for facilitating children's learning at home. For example, families can sign up for programs such as Ready4K that send texts to help children meet key developmental milestones (York, Loeb, & Doss, 2018). Yet, less focus has been placed on the potential benefits of texting to bridge the home–classroom gap specifically by supporting communication between teachers and families to assist with students' learning. In the first years of schooling, texting might be a particularly important tool in the effort to help students build vocabulary, or learn the meaning of words, because vocabulary is very important for later success in reading and beyond but is very challenging to teach in school alone.

In this article, we lay out the evidence showing how texting can support family engagement and students' learning, focusing specifically on how texting might support vocabulary development. First, we review why vocabulary development is so critical and how children learn words. We next share evidence about opportunities that students have at home and school to learn new words, especially when they are growing up in communities in poverty. Thereafter, we explain what research says texting-based approaches can do to support students' learning and family–school engagement, broadly speaking. Fourth, we describe an example of an effective texting project, Text to Talk, in which teachers text families the vocabulary words their children are learning in the classroom so they can reinforce these words at home. Finally, we offer helpful hints to teachers about how texting can be used in their early-grade classrooms to build a variety of skills among students, including vocabulary, highlighting how texting is different from other forms of family–teacher communication already employed by classroom teachers.

Why Vocabulary Development Is Important for Young Children

Over the past 30 years, considerable research has examined the important role that vocabulary development plays in young children's literacy development (Fernald, Marchman, & Weisleder, 2013; Morgan, Farkas, Hillemeier, Hammer, & Maczuga, 2015; Suggate, Schaughency, McAnally, & Reese, 2018). Learning to read involves many complex processes, including developing vocabulary, phonemic awareness, fluency, and comprehension skills. Vocabulary plays an important role in that children who have well-developed language and vocabulary skills draw on fewer cognitive resources to understand the meaning of a word as they encounter it on the written page. Children with larger vocabularies are more likely, when recognizing or sounding out a new word, to know the meaning of that particular word, making comprehension more efficient. Relatedly, research has shown that, even after children have largely mastered decoding, those with limited vocabularies often continue to encounter difficulties with reading comprehension because of a lack of knowledge of word meanings and the structure of language (Dickinson & Porche, 2011; Ouellette, 2006).

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Many children in poverty have less developed vocabulary knowledge, especially for the specialized academic vocabulary that appears more frequently in books than in conversation (e.g., *disappointed* instead of *sad*, *inspect* instead of *look*). Researchers have shown that the gap in vocabulary knowledge between children from lower and higher income families is present before children enter formal schooling (Dickinson & Tabors, 2001). Although families in poverty are involved in their children's learning (Hindman, Skibbe, Miller, & Zimmerman, 2010) and deeply interested in building essential skills (Drummond & Stipek, 2004), research has shown that there is often less talk in lower income households, relative to middle-income households, particularly around the specialized vocabulary that appears in books (Lareau, 2003). This gap may emerge in part because income is highly correlated with language status and educational attainment, both of which may result in families in poverty having less information about the type of language interactions that build early literacy and language skills (Neuman & Celano, 2015; Reardon, 2013).

Effective Word-Learning Strategies

Linguists and cognitive researchers have spent considerable effort in understanding how children learn words (Pinker, 2003), yielding four important principles of word learning that are relevant for young students. First, children need to understand the meaning of a new word (Biemiller & Boote, 2006; Weizman & Snow, 2001). This understanding can begin most simply by providing a child with an age-appropriate definition. For example, telling a young child, "An ant is a small insect that you can see crawling on the ground, and it has six legs," facilitates word learning; explaining the meaning of a word in relation to its function is particularly helpful (Booth, 2009). The word *ant* is a good example because it can be challenging to define the function of some words. Telling a child, "An ant likes to eat crumbs of food. That is why we are careful in cleaning up our food;

we don't want to get ants," can connect a new word to a child's experience or existing knowledge. Word meanings are also reinforced by showing children pictures or actual objects (Han, Moore, Vukelich, & Buell, 2010; Wasik & Bond, 2001).

Second, children need multiple exposures to a new word (Biemiller & Boote, 2006; Dickinson et al., 2019; Harris, Golinkoff, & Hirsh-Pasek, 2011). This means not only hearing the word many times but also hearing the word used in multiple meaningful contexts: at home, at school, in play, and while being read to, among others. Although students' minds are often described as sponges that quickly absorb new words, research has shown that children can require dozens of experiences with a new word to solidify their understanding of its meaning (Horst, 2013).

Third, apart from hearing new words, students need to practice using a new word, saying it and getting feedback on how they have used it, including its correct pronunciation and pragmatic use (Hindman, Wasik, & Erhart, 2012). Encouraging students to talk and engage in conversations with adults about new words allows students to experiment with using words they have heard and get information about whether they are using the new words correctly.

Fourth, students need to be able to make connections between a new word and the larger world, building a rich network of associated words and meanings (Pollard-Durodola et al., 2011). For example, when describing to a student what an ant is, it is helpful to understand what the student already knows about ants and to make a connection to this existing knowledge. For example, an adult might explain, "Remember the insects you learned about yesterday, beetles and flies? An ant is an insect the size of a small fly, but it crawls on the ground." Helping students make connections between what they know and what is new helps them develop and refine new concepts and words. Connecting labels to concepts is an essential step to developing vocabulary.

PAUSE AND PONDER

- Could texting be an efficient way to reach your full class or individual family members of students in your class?
- What could you ask families to do, via text, to help their children learn at home?
- What videos or website resources could you share with families via text so they know how to implement learning activities at home?
- Which of today's classroom activities could you text families to ask their children about to start an extended conversation?
- Can you use scheduled texts to save yourself time and increase classroom organization by notifying families about classroom needs or events?

Home and School Vocabulary Experiences

Families are children's first teachers, and much of children's early language is learned from their parents and other adults who care for them. Mounting research has demonstrated that, on average, children in poverty have different language experiences at home than their more advantaged peers and that these differences in home experiences translate into disparate vocabulary knowledge, which later predicts children's success in learning to read (Morgan et al., 2015; Vernon-Feagans, Bratsch-Hines, Reynolds, & Willoughby, 2019).

Research has shown that many children in poverty specifically have less exposure at home to the type of language called academic vocabulary that is traditionally used in school-based dialogue and text, as compared with children from middle- and upper income families (Corson, 1997; Hindman et al., 2010; Lareau, 2003; Snow & Kim, 2007). *Academic vocabulary* refers to words that are not commonly encountered in informal conversation yet are frequently found in books. As a result of lack of exposure to academic vocabulary at home, children in poverty often enter preschool and kindergarten with less developed academic vocabularies, which puts them at a disadvantage as they are learning to read.

Several preschool interventions have addressed this disparity in children's vocabulary knowledge. Landry, Anthony, Swank, and Monseque-Bailey (2009) developed a comprehensive professional development package for preschool teachers that is effective at supporting the development of students' language and vocabulary. The Boston Prekindergarten Program (Weiland & Yoshikawa, 2013) showed similar findings from implementing a professional development intervention for preschool teachers on student vocabulary. Using a similar approach to professional development, the ExCELL project yielded similar results (Wasik & Hindman, 2011).

Many of these teacher professional development programs focus on book reading as a vehicle for exposing students to more advanced vocabulary, with picture book images, the story context, and teacher questions and feedback during book reading identified as key components that support faster word learning. Parent-implemented shared book reading can also contribute to students' word learning, especially when employing the same strategies used by teachers (Dowdall et al., 2019; Mol, Bus, de

Jong, & Smeets, 2008). Although these school-based interventions have been successful in showing gains in students' vocabulary development, an important piece missing from most school-based interventions is a family component.

Enhancing school-based interventions with a family component has many advantages. First, a family component can increase the dosage of word exposure. If a student hears a word at school and also hears it at home, this automatically doubles the student's exposure to the new word, which can accelerate word learning.

Second, if families know what children are learning about in school, this can provide opportunities for families to have meaningful conversations with their children. Instead of asking, "What did you do in school today?" and the child responds, "I can't remember," family members can ask very specific questions, based on teacher-supplied information, about what occurred at school. For example, when teachers text a family, informing them what was learned about butterflies, family members can talk specifically about butterflies with their child, finding out what the child knows and what they still can learn.

Third, parents and other close family members are better able to relate new words to children's personal experiences and knowledge. At school, teachers can relate new words to previous lessons, books, and activities that they have shared in their class. Making the home connection allows families to relate what children are learning in school to something more specific and individual: children's personal experiences. Expanding on the butterfly example, if a mother knows her child is learning about butterflies that week, she can evoke her child's recent family experience by asking, "Remember when we were at Aunt Gayle's last week, and we saw that beautiful butterfly? Do you remember the colors on its body? Do you remember how its wings fluttered?" Or, a father may be able to connect a new word to a book that the family recently read together or to a movie that the child recently watched. These conversations can also draw on shared cultural activities, experiences, traditions, and other funds of knowledge that compose family strengths (Gonzalez, Moll, & Amanti, 2005). Making the home-school connection allows families to remind children about and invite children to discuss what they already know, building a network of connections around the new word that supports understanding and remembering.

Connecting words from school to home can also provide opportunities for families to see their child successful with more academic language than they had thought their child capable of. For example, a butterfly unit at school might teach the words *chrysalis* or *metamorphosis*; when teachers send words to parents to discuss at home, parents can be surprised by and proud of how much their child is learning. When teachers encourage families to reinforce these complex words at home in their day-to-day conversations around mealtime, playtime, bathtime, or bedtime, children's knowledge is further stretched, deepened, and fortified.

The need to better connect school and home learning around vocabulary instruction has long challenged the field (e.g., Dickinson, 1994), but texting provides a possible solution.

Texting: What We Know

Texting has become a ubiquitous form of communication in the United States, driven by nearly universal usage of cell phones; 99% of American adults ages 18–49 have a cell phone, and more than 90% have a smart phone (Pew Research Center, 2019). Surveys have suggested that Millennials and Generation Z prefer to communicate via text rather than phone calls or email (Newport, 2014). With the near universal adoption of cell phones and preference for texting, services such as Remind, ClassDojo, and Edmodo tap into this enormous market by allowing teachers to text families privately and securely without using their personal phone number (Snell, Hindman, & Wasik, 2018). Teachers access programs such as Remind via the web or an app and are able to send messages to individuals, groups, or the whole class. These messages can arrive as text messages on the recipient's phone and thus do not require use of a smart phone. Family members can also access messages via the web or app.

Human service programs and health interventions have found texting to be a useful tool to enhance communication and affect parent and child outcomes (Hall, Cole-Lewis, & Bernhardt, 2015), nudging parents to increase behaviors that benefit their child (Gennetian, Darling, & Aber, 2017; Jacob, Berger, Hart, & Loeb, 2016). For example, texting is increasingly used in health interventions targeting expectant, new, and experienced parents by delivering targeted, personalized text messages (Chen, Chai, Dong, Niu, & Zhang, 2018). Texting has also been successfully used to improve parent

participation in parent training and education interventions (Murray, Woodruff, Moon, & Finney, 2015).

Perhaps most encouraging are findings from randomized trials that texting can increase parents' home involvement with their young children (Doss, Fahle, Loeb, & York, 2019; Hurwitz, Lauricella, Hanson, Raden, & Wartella, 2015; York et al., 2018). Hurwitz et al. (2015) found that text messages sent to preschool parents over six weeks increased parents' participation in home learning activities, with impacts greater for parents of boys and fathers. Another texting-based intervention, Ready4K (York et al., 2018), sent three literacy-focused texts per week for eight months to parents of preschoolers. The program increased the frequency of parent involvement in home literacy activities, parent involvement at school, and student literacy skills, with some effects being sustained through kindergarten (Doss et al., 2019).

Texting interventions have also been used to address “summer slide” in elementary school (Kraft & Monti-Nussbaum, 2017), time children spend reading with parents (Mayer, Kalil, Oreopoulos, & Gallegos, 2018), and students' school performance and absenteeism in kindergarten (Smythe-Leistico & Page, 2018) and in middle and high school (Bergman & Chan, 2017).

Researchers are still trying to determine the best use of texting that will result in significant impacts on children. Cabell, Zucker, DeCoster, Copp, and Landry (2019) found mixed impacts of a pre-K parental texting program focused on actionable, rather than merely informational, messages; only students with higher skills benefited from their parents receiving language and literacy-focused texts, but lower skilled students saw greater benefits from health-focused texts. Baroody, Ferretti, and Larsen (2018) also found mixed effects of a texting-based intervention; texts were most effective for Spanish-speaking families and increased children's math and literacy interest, definitional vocabulary, and print knowledge.

Snell et al. (2018) conducted a focus group study to examine whether teachers and families were open to the idea of sending or receiving information about what students were learning in class via text or texting-based apps. The study found that many Head Start and public pre-K teachers use texting to communicate with families. Teachers reported using texting not only because it is logistically easier to reach busy, working caregivers but also because of the translation capabilities many texting programs

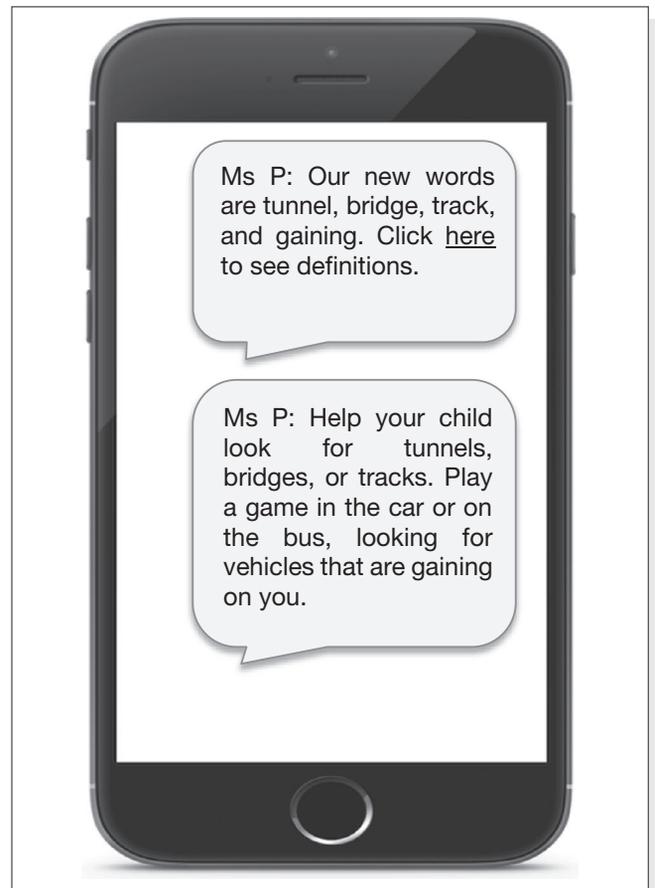
have, which improve communication with family members who do not speak English as their primary language. Overall, teachers reported that texting was helpful to them in facilitating ongoing dialogue, communication, and collaboration with families.

The focus groups revealed that families did not have concerns about teachers texting them and that nearly all families had phone plans that allowed for unlimited texting, making this method of communication accessible to most families. Indeed, as multiple adults in a family (e.g., mother, father, grandmother) could sign up to receive texts (and in most cases, multiple family members did sign up), many families felt more connected as compared with paper-based or in-person approaches to communication, when only the family member who picked up children from school, attended school meetings, or checked the bottom of children's backpacks would receive information from the school.

Finally, it is important to note that texting is best done using apps such as Remind or ClassDojo that allow teachers to reach families without using their own personal phone numbers. Using such services keeps teachers' personal numbers private and confidential, as desired. Parents may also opt in or out of the service. Teachers should keep communication constructive and send relevant, useful messages. Teachers we have interviewed (Snell et al., 2018) noted that they use texting for positive and useful information but discuss behavioral or academic problems in person or on a phone call. Password-protected texting services such as Remind or ClassDojo make every effort to maintain confidentiality and privacy but do require teachers to be mindful of what they share over text.

We designed the Text to Talk intervention based on these promising results for texting-based interventions and the evidence from the literature around how young students learn words. We drew from the vocabulary and word-learning literature outlined at the beginning of this article to guide our design of an evidence-based, vocabulary-focused language intervention. In Text to Talk, teachers texted information about four vocabulary words each week using Remind or ClassDojo (see Figure 1); they sent texts to all family members who had agreed to participate. Family members were free to drop out at any time. These texts had been prepared ahead of time by project staff (see Figure 2) and given to teachers for ease of use, although teachers were welcome to send additional texts (and many did).

Figure 1
Example Vocabulary-Related Texts Sent in Text to Talk



Text to Talk texts introduced families to a book read that week in class, four words from that book, and ideas for ways the families could talk about the words with their child. The texts also included links to the program's website, which includes videos of the book being read, student-friendly definitions, and other ideas for facilitating child-adult conversation about the words to increase understanding. Teachers could use the texting programs (e.g., Remind, ClassDojo) to translate the texts for families who requested receiving them in another language. Text to Talk was then tested in a randomized controlled trial in a large city school district. Results found that teachers who texted information about the vocabulary aligned with what they were reading in class that week had students who learned more of those words (Snell, Wasik, & Hindman, 2019).

Based on the findings, we are providing some evidence-based guidance to encourage texting as an

Figure 2
Examples of Text to Talk Books, Vocabulary Words, Definitions, and Activities

Book	Word	Definition	Activity
<i>A Pocket for Corduroy</i> by Don Freeman	<i>laundry</i>	Clothes that need to be washed are laundry.	Ask your child to help you do the laundry.
	<i>pocket</i>	A pocket is a small piece of material on your clothing that holds things.	Ask your child what he or she could hide inside a pocket. Pretend to search for the item.
	<i>inside</i>	Inside is the inner part of something.	Play a game in which you hide objects inside or outside a box or cup. Ask your child to tell you whether the object is inside or outside.
	<i>search</i>	To search is to look around very carefully in order to find something.	Play a searching game in which you ask your child to search for different objects in your home.
<i>Peeny Butter Fudge</i> by Toni Morrison and Slade Morrison	<i>patience</i>	Patience is the ability to be calm and wait without getting upset or angry.	Ask your child to show you how to be patient while waiting in a store or in line.
	<i>fudge</i>	Fudge is a type of candy.	Look up a recipe for fudge and make it together.
	<i>recipe</i>	A recipe is a list of ingredients and instructions for making food.	Ask your child what a recipe is. Tell him or her what your favorite recipe is. If you have time, make the recipe together.
	<i>rhythm</i>	A rhythm is a pattern of sounds.	Play a game with your child in which he or she makes up a clapping rhythm and you try to copy it.

Note. Each week, the teacher sends out a text listing the words and one of the activities, along with a link to that week's Text to Talk webpage. On the webpage, the words are listed along with pictures, definitions, and activities. A link to a YouTube video of the book being read is also included.

additional tool to support students' word learning. Although we focus in this article on word learning, these strategies can also be applied to texting about other literacy topics, such as phonemic awareness or comprehension, or other topics of a teacher's choosing.

How Texting Can Be Used to Support Word Learning

To summarize the evidence for preschool word learning, students learn words most easily when they understand the meaning of the word, receive multiple exposures to the word, have the opportunity to use the word and receive feedback in conversation, and are given the opportunity to make connections to their existing knowledge. Texting can be used to support all of these evidence-based strategies that support vocabulary learning. In addition, parents who feel invited, motivated, and confident in their

role as their child's home teacher are more likely to engage in home-based strategies that will boost their child's learning and development.

Texting to Support Learning Word Meanings

Teachers can text a word and a simple, student-friendly definition to parents and encourage parents to ask their child if they know what the word means. A student-friendly definition uses simple language and relates the word to objects, concepts, or ideas that are familiar to the student. If a student does not know the word meaning, the parent can help explain the word meaning, either using their own knowledge or the provided definition.

We recommend that teachers text specific words that are being taught or discussed in their current theme, unit, or collection of books. For example, a

teacher can choose four words from a book that is being read as part of a unit. Along with these four words, she can send pictures, definitions, and short notes that emphasize to parents the importance of talking about the words and explaining word meanings. Parents can be encouraged to use real-life objects, toys, and games to explain word meanings and talk about words. The teacher can also provide links to online sources for further exploration. For example, if the words come from a book, teachers can check to see if there are YouTube videos of someone reading the book. Many read-aloud book videos are available, and parents and children can watch the videos together and listen for the new words or discuss the words in context after hearing the book read. If words come from a science topic, teachers can look for online extension activities on that topic. These links can be shared via text more effectively and efficiently than would be possible via paper communication.

Texting to Provide Increased Exposure to New Words

Texting serves as an outstanding opportunity to provide students with multiple exposures to words. On a daily basis, teachers expose students to new words in class through book reading or other classroom activities. When new words are also sent home via text and parents talk about them, students receive a larger dose of exposure to the new words from caring adults in their life. We encourage teachers to cycle back to previously learned words and remind parents, via text, to review these with their children. Texting can make this process easier for teachers and more likely that students will learn new words.

Texting to Support Practice Using New Words

Because students need opportunities to use new words in conversation and get feedback on pronunciation and usage from adults, texting can encourage families to have conversations about new words through asking open-ended questions. Teachers can text parents examples of open-ended questions they can ask their children, connected to what is being discussed that week at school. Teachers may need to provide families with the guidance, either through in-class training or through video exemplars, to help family members understand what it means to talk about words with their children. Showing, through video or in-person demonstration, can be more effective than merely telling (Kaminski, Valle, Filene, & Boyle, 2008).

Texting to Encourage Connections Between Existing Knowledge and New Words

Students must make connections between new words and their existing knowledge. Parents are well situated to provide these sorts of connections through conversation because parents know more than any other adult about their child's background experiences, interests, and day-to-day activities.

Texting to Support Parent Confidence and Engagement

Studies of family-school engagement and parent involvement have shown that families and parents who feel personally invited by teachers to engage in their child's schooling are more likely to do so (Hoover-Dempsey & Sandler, 1995). Ongoing texts from teachers can serve as open invitations to parents to be involved at home or at school. In addition, research has shown

TAKE ACTION!

Teachers who may be interested in implementing a similar program in their own classroom or school can use the following strategies from Text to Talk to support students' word learning.

1. Use a text messaging service, such as Remind, ClassDojo, or Edmodo. These services have many advantages, including privacy protection, translation services, and ease of use. In most cases, they are free for educators to use.
2. Start the year with an initial meeting in which parents are introduced to what you are trying to accomplish and how texting works to achieve your goal.
3. Send texts about specific words that are being used in your theme, unit, or collection of books. Include a picture and a child-friendly definition of each word.
4. Ask parents to use objects, toys, and games to play with and practice using words.
5. Provide families with needed guidance so they can use the texts as you intended. Showing them what you mean, through video or in-person demonstration at a parent meeting, can be more effective than merely telling them.
6. Use texts to cycle back to previously learned words, to remind parents to review new vocabulary with their children over time.
7. Text a minimum of once a week and maximum of three times a week; more than this can be overwhelming to parents, and they may start to ignore texts.

that parents are more likely to engage in learning activities when they feel confident that what they are doing with their children will pay off in the long term (Hoover-Dempsey, 2011). When teachers provide parents with evidence-based word-learning strategies, parents can feel assured that the role they play in helping their children learn and practice new words will result in long-term vocabulary growth for their children.

Summary

Texting is a promising strategy to enhance home-school connections and accelerate students' learning. In this article, we provided guidance on how texting can be useful to teachers, enrich family-school communication, and improve students' learning outcomes. We encourage teachers to experiment with this new approach for supporting family communication and students' educational success.

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- Remind: <https://www.remind.com>
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