"Wud u lk 2 meet me 4 brgr 2nite?"

If you've ever looked at a teenager's text message and thought it looked more like a kindergartener's scrawl, you might not be far off.

Middle school students who frequently use "tech-speak"—omitting letters to shorten words and using homophone symbols, such as @ for "at" or 2nite for "tonight"—performed worse on a test of basic grammar, according to a new study in New Media & Society.

Drew P. Cingel, a doctoral candidate in media, technology, and society at Northwestern University in Evanston, Ill., conducted the experiment when he was an undergraduate with the Media Effects Research Laboratory at Penn State University in University Park, Pa. under director S. Shyam Sundar. The researchers surveyed 228 6th, 7th, and 8th graders in central Pennsylvania on their daily habits, including the number of texts they sent and received, their attitudes about texting, and their other activities during the day, such as watching television or reading for pleasure. The researchers then assessed the students using 22 questions adapted from a 9th-grade grammar test to include only topics taught by 6th grade, including verb/noun agreement, use of correct tense, homophones, possessives, apostrophes, comma usage, punctuation, and capitalization.

Mr. Cingel, who published the study while at Wake Forest University in Winston-Salem, N.C., and Mr. Sundar found that the more often students sent text messages using text-speak (shortened words and homophones), the worse their grammar—a concern as 13- to 17-year-olds send more than twice the number of text messages each month than any other age group.

Moreover, the more often a student received text messages using tech-speak, the more likely he or she was to send messages using that language. There was no gender difference after accounting for the amount of texting each student did, though teenage girls have been found in other studies to send and receive nearly twice as many messages per month as boys do: 4,050 texts on average, compared with 2,539.

Mr. Cingel started the project after receiving texts from his young nieces "that, for me, were incomprehensible," he said in a statement. "I had to call them and ask them, 'What are you trying to tell me?'"

While texting has caused consternation among educators and parents since the 1990s for distracted writing as well as driving, changing communication technology historically has changed the way people speak and write over time. That journalistic standard, the inverted pyramid structure (write the most important thing first, the second most important thing second, and so on) developed in the telegraph era, when reporters' stories often were cut off mid-transition. Similarly, the need to respond quickly and briefly in text messages—and the outright character limit in social media like Twitter—puts pressure on students to cut out any unnecessary sounds. In fact, some studies have found students who text frequently are better at spelling and identifying homophones, as they have to, to turn "great" into "gr8."

Furthermore, contrary to Mr. Cingel's experience with his nieces, many people can understand words spelled phonetically or in even more mixed-up ways, and teenagers can view tech-speak both as a shortcut and a means of expressing identity—particularly if it's a little hard for parents to make out.

"People get creative in terms of trying to express a lot. The economy of expression forces us to take shortcuts with our expression. We know people are texting in a hurry, they are on mobile devices, and so they are making these compromises," Mr. Sundar said. "It's not surprising that grammar is taking a back seat in that context. What is worrisome is it somehow seems to transfer over to their offline grammar skills. They are not code-switching offline."

In that way, students who use tech-speak differ from those who speak multiple languages; multilingual children have been found to switch back and forth easily among their languages in different contexts and may actually be more flexible in other ways of thinking. Tech-speak is similar enough to standard English that researchers believe it may bleed over into different contexts more easily.
“Ultimately it’s not seen as a different language, so they kind of get used to communicating English language this way, the more they try to generalize what they do in texting to the normal grammatical rules of writing,” Mr. Sundar said.

Likewise, teachers can help their text-happy students shore up their grammar skills, Mr. Sundar said, both by making them more aware of their grammar usage and by assigning writing tasks that differ significantly from their typical texting topics. So, for example, writing an essay debating a current issue or writing a letter to the president might be more likely to trigger students to switch into using more formal language, and thus cement their grammar skills. As students become more adept in grammar, they can be encouraged to think about their grammar choices in texting more consciously, he said.

The study found some evidence to back this approach: Students who texted the most did not have more trouble with capitalization and punctuation, although text messages also often contain less of either. Mr. Sundar theorized that capitalization and punctuation may be more resistant to the degradation of texting because they are taught in earlier grades than other grammar rules and thus have had more time to take root in students' language.

Then again, considering the ubiquity of texting and Tweeting, Mr. Sundar said, “It’s only a matter of time before ‘gr8’ is in the Oxford dictionary.”