Special Issue Editorial

Mobile technology and literacy: Effects across cultures, abilities, and the lifespan

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Mobile technology and literacy: Effects across cultures, abilities, and the lifespan

In the space of a decade, the use of mobile technology as a means of communication has been adopted by children, adolescents and adults across the world. As part of this process, users have adapted written forms and conventions to create an abbreviated form of writing variously known as text-speak, textese, or txt. Individuals use, for example, number homophones (2day), contractions (txt), sound-based spellings (skool) and initialisms (lol), to save on message length (Ling, 2004), to build social relationships (Thurlow, 2003), and/or simply to have fun with language (Crystal, 2008). The popular media regularly expresses concern that the use of textese threatens conventional standards of reading and writing. However, intensive investigation is only just beginning on the potential impact of such mobile literacy practices on traditional literacy skills. This special issue brings together some current empirical research in this area with texters of different ages, abilities, and cultures.

Children are receiving their first mobile phones at younger and younger ages (Plester, Wood, & Joshi, 2009). In many developed countries, the majority of children have their own mobile phones by the upper years of primary school. At 9 to 12 years of age, children are still developing and consolidating their conventional reading and writing skills. This is perhaps why popular opinion suggests that frequent exposure to textese may disrupt conventional literacy development. The limited amount of experimental research that has been published in this area has shown that the links between textese use and literacy skills in children actually seem to be positive (e.g., Plester, Wood, & Bell, 2008; Plester et al., 2009). Further work is needed to confirm these conclusions as mobile phone usage becomes more widespread, and to extend research to people of a range of ages, with differing literacy skills, in different countries, using the wider range of text input methods now available. The work reported here extends current research in some of these ways.
The first four papers consider the links between the use of text-messaging language and conventional literacy skills in children in the upper primary school years, in three different countries. Coe and Oakhill report on phone and texting use in 10- to 11-year-old British children, about two-thirds of whom had their own mobile phone. There were mostly positive links between textese use and conventional literacy skills: good readers used more textisms than poorer readers when composing a text message (regardless of phone ownership) and good readers were faster than poorer readers at reading messages in both standard English and textese. Thus, in line with previous findings from a similar population (Plester et al., 2008, 2009), reading skill in these children was positively related to the ability to produce and decipher textese, beyond any effects of practice with texting.

To date, most of the published research on textese in school-aged children has been in the UK, where mobile phones were adopted relatively early and widely. In other countries, including Australia, children’s phone ownership has become widespread only more recently, and the patterns observed may therefore differ from in British studies. Kemp and Bushnell asked 10- to 12-year-old Australian children (82% phone owners) to read and write text messages on mobile phones, in both standard English and textese. They also considered the effects of conventional language skills, texting experience, and text entry method. ‘Predictive text’ entry was faster than ‘multi-press entry’, although multi-press experience made typing faster. Like Coe and Oakhill (this issue) and Neville (2003), Kemp and Bushnell found that children were slower and less accurate at reading aloud messages in textese than in standard English, although unlike in previous research, using textisms in their typing did not make children any faster at message composition. It seems that at least in this population, textese is not being used solely for greater efficiency. Again, a positive link was seen between facility with textese and literacy skills: the speed with which children read aloud textese messages predicted their literacy scores, even beyond the effects of age and general reading speed.
Almost all of the research published to date has been cross-sectional, and so it has been difficult to draw causal conclusions about potential links between texting and literacy. *Wood, Jackson, Hart, Plester, and Wilde* address this gap in an intervention study with British 9- to 10-year-olds. These authors gave mobile phones to children previously without phones, which allowed participants to send and receive text messages for ten weekends and a holiday week. These children’s pre- and post-intervention literacy and language skills were then compared with those of a no-phone control group. The phone group did not show significantly more literacy development over this relatively short period than the no-phone group, but nor did they show significantly less. Further, in the phone group, children’s use of textisms in their messages predicted post-test spelling scores, even after controlling for IQ and initial literacy scores. These results thus provide some of the first evidence that the use of textese can directly improve literacy skills (here, spelling), even if the short intervention period was not long enough for any significant inter-group differences to emerge.

Little experimental research has considered the use of text abbreviations in languages other than English. Since the English orthography is quite irregular, the way that textisms are formed, and any relationship with other literacy skills, might be rather different in other languages. *Plester, Lerkkanen, Linjama, Rasku-Puttonen, and Littleton* discuss their research with 9- to 11-year-old Finnish children (94% phone owners). Finnish has a highly regular orthography, but the spoken form of the language is much abbreviated from the written form. Plester et al.’s Finnish participants produced a similar ratio of textisms to those seen in British children (Plester et al., 2008, 2009), but their textisms reflected spoken, rather than written language, in a way that English textisms typically do not, presumably because of the differences between spoken and written registers in the two languages. As seen in English, textism ratio was (somewhat) related to more conventional literacy skills, but only in the context of texts elicited at school, not spontaneous texts. This result requires further research.
Adolescents, even more than children, have been eager to adopt mobile technology for communication. However, not all individuals have equal linguistic skill, and adolescence might be a particularly difficult period for those with a specific language impairment (SLI), who might miss out on social arrangements and communication conducted by text. *Durkin, Conti-Ramsden, and Walker* tested the cognitive, language and literacy skills, and the text-messaging behaviour, of a group of 17-year-olds; half typically developing (TD) and half with SLI. Adolescents with SLI showed a reduced pattern of texting behaviour compared to their TD peers, in terms of the frequency of their everyday messaging, the likelihood of their replying to the researcher’s text message, and if they did reply, the length and textism density of their response. In these groups, too, there were positive correlations between textism use and literacy scores.

By adulthood, literacy skills are largely in place, and presumably less vulnerable to either the potentially negative (as suggested by the media) or potentially positive (as suggested by research findings) influence of exposure to textese. *Dixon and Powell* confirmed the robust finding that university students’ spelling of often erred-upon words deteriorated after exposure to phonetic misspellings (e.g., *seperate*) but improved after exposure to correct spellings (e.g., *separate*). However, participants’ spelling also improved after exposure to target words’ textese forms (e.g., *sepr8*). The authors speculate that this unexpected improvement may result from the textisms priming the orthographic representations of the correct forms, and perhaps in the longer term, from focusing attention on words’ phonological structure. In any case, these findings may help to explain some of the mechanisms by which exposure to textese may facilitate spelling, even in adults.

Finally, *Drouin* examined the self-reported texting and other computer-mediated communication behaviour, and the literacy skills, of American university students. Reported text-messaging frequency was positively related to spelling and reading scores, as well as to
the use of textese in text-messaging. However, those who used more textese in other media (social networking sites and emails to professors) had lower reading scores than their peers. These results suggest intentional decisions about when to use textese, rather than a blanket tendency to employ this abbreviated writing style in all computer-mediated communication.

Together, these papers provide a range of evidence on the links between mobile phone texting and more conventional literacy skills, in children, adolescents, and adults of various backgrounds and abilities. One clear conclusion that emerges is that exposure to textese does not result in the deterioration of conventional reading, writing, and other language skills, as has been widely suggested in the popular press. On the contrary, the relationship between textese use and literacy skills seems to be overwhelmingly positive, and even, at least in part, causal. The findings reported here make a new contribution to our current knowledge. As technology develops, the communication behaviour of technology users of all ages will change as well, and so may the links between this behaviour and traditional literacy skills. Continued research will need to keep up with both.
References


