Finnish and UK English pre-teen children’s text message language and its relationship with their literacy skills

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Abstract The aim of the study was to demonstrate the style of text language used by Finnish pre-teen texters (n = 65) and determine how their text language related to their traditional literacy skills, and compare descriptively these results with earlier results from work with young English texters. Three kinds of text messages (natural texts, elicited texts and elicited replies) were recorded after cognitive and literacy skills were assessed. Relationships between text language and standard literacy skills were shown to be different between the two languages, and we propose that those differences arise from both the structures of the languages themselves, and the communities of linguistic practice in the two countries. We compared, with a subsample (n = 16), natural, spontaneous text messages with those elicited in experimental conditions, demonstrating metalinguistic sensitivity in these young texters. The conclusion regarding the Finnish text register is that it very closely approximates spoken register Finnish, rather than more formal written Finnish.

Keywords literacy skills, reading, text messages, writing.

Introduction The 2008 Mobile Life Report indicated that 94% of young people in the UK owned a mobile phone, and in the UK, 52% preferred text messages to talking. In Finland, Nurmele et al. (2006) reported that there were 5.3 million people, and 5.6 million mobile phone service arrangements. Not every Finn had a mobile phone, but many had more than one. Finnish children grow up in a highly technologized society, where computer-mediated communication is commonplace and young people regularly have access to a variety of such media (Leppänen et al. 2009). Computer and basic media skills are included in the Finnish pre-school curriculum (Lerkkanen et al. 2010).

In Europe, the mobile phone texting culture received a head start, experimental text messaging first occurring in Finland as early as 1992, although widespread use took a few years to become established. Favourable pricing policies available in Europe enabled texting on a mobile phone to become the medium of choice for many young people. With such enthusiasm shown for texting among children, the question must arise: How do their language practices in texting interact with the traditional language conventions they encounter in school? Recent studies have shown that learning text language does not damage traditional literacy skills, rather it is associated with competence in reading and spelling with UK English-speaking children (Plester et al. 2008, 2009a,b; Plester & Wood 2009), and may...
even be shown to enhance literacy skills over time (Wood et al. 2009).

Language may be seen as continually developing through sometimes implicitly negotiated and managed language policies and practices within language use communities, observer of the norms of particular discourse contexts. Text language might be seen as an exemplar of ‘language policy as an evolving, mundane phenomenon shaped and reshaped by discursive practices’ (Leppänen & Piirainen-Marsh 2009, p. 279); it is not a ‘basilectal lowlife’ lacking grounding in standard language (Tagliamonte & Denis 2008, p. 25). Young texters learn and teach and negotiate language policy as they text one another. This lends weight to a predominantly conversational nature of texting, accomplished through written form, based in perceived appropriateness and flexibility of palette. Text language policy may include elements of stylization and parody of formal, traditional language (Leppänen & Piirainen-Marsh 2009), at the same time as phonologically adept orthographic representations of spoken language. Either of these playful uses of language shows sensitivity to the style and attitude of spoken language, as well as its sound. A phonological basis for textisms has been demonstrated in several languages, for example Polish (Kul 2007), French, German, Italian, Portuguese, Spanish (Crystal 2008) and English (Plester & Wood 2009).

Finnish language

Finnish is an agglutinative language, where grammatical markers are appended to the lexical root (e.g. ‘koulussa’, [in school]; ‘koulusta’, [away from school]; ‘koulunsa’, [his/her school]), and words can have several endings in a row, creating very long words indeed. One classic example is the word ‘Tietämätömyydestäänköhän?’ This began with ‘tietää’, [to know], and with the collection of endings, can be understood as ‘It’s because of his ignorance, isn’t it?’ As long as communicative intent is not violated, and there is shared understanding between speakers, abbreviations can be welcome in an agglutinative language.

Spoken Finnish is an abbreviated form of language, which is not normally encountered in written form, especially by children, outside their own invented spellings, although it may appear in writing by those with little formal education, and in literature depicting speech. Spoken register Finnish, however, is used widely among people with all levels of education. Some characteristics which distinguish spoken Finnish from written Finnish include the loss of consonants from the middle of words (e.g. ‘meiän’ for ‘meidän’, [our]) or loss of final vowels or clusters (e.g. ‘anteeks’ for ‘anteeksi’, [sorry]). Personal pronouns are shortened (e.g. ‘müi’ for ‘minä’, [I], ‘mun’ for ‘minun’, [my]). Third person ‘hän’ and ‘he’, [he/she] and [they], are often replaced by ‘se’ and ‘ne’, [it, singular and plural]. The final particle indicating a question, ‘ko/kö’ has s added, derived from an archaic Balto-Finnic suffix signalling informal speech, then the ö is dropped to produce the colloquial form (e.g. ‘Olenn minä?’, [Am I?] becomes ‘Oonks mi?’; ‘Eikö niin?’, [Isn’t it so?] becomes ‘eiks mi?’; ‘minun kanssani’, [with me] becomes ‘mun kans’, the personal pronoun ending ‘-ni’ dropped, as well as the last cluster in ‘kanssa’ [with]).

There is considerable difference in pronunciation between the spoken register of language and the more formal written register, and its use is less likely to be frowned upon than is similar casual spoken English. Because these sound differences between spoken and written language widely exist, we would anticipate finding these alternate pronunciations represented graphically in text messages, which seem more akin to spoken language than formal written language. In English children’s texts, the type of textisms referred to by Thurlow (2003) as accent stylizations have often been found the rendering of spoken language phonetically in writing (e.g. ‘dunno’, ‘wanna’, ‘comin wiv us’, ‘innit’), but these may, in more formal contexts, be likely to attract correction in spoken English as unacceptable pronunciations, as spoken English is implicitly expected to match written English phonologically.

Learning to read and spell in Finnish

The move from spoken to written language for any child maps the orthography of the language onto the phonology, at the level of individual letters, letter combinations, syllables, words or concepts. In Finnish, as English, the alphabetic principle must be grasped for words to be decoded. Finnish orthography is the most transparent of European languages using the Roman alphabet, English one of the least transparent (Seymour

38

B. Plester et al.

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et al. 2003). Every sound in Finnish has only one orthographic representation, and every letter in Finnish represents only one sound. Challenging phoneme-grapheme conversions must recognize the difference between a single letter and the same letter doubled (e.g. the minimal pair ‘kuka’ and ‘kukka’, or ‘tuli’ and ‘tuuli’), or between a back vowel and a front vowel in a syllable (e.g. ‘ku’ and ‘ky’, ‘pa’ and ‘pä’). Six-month old Finnish children are sensitive to such distinctions in speech (Lyytinen et al. 2004), and most learn readily to apply those distinctions to orthography as they are exposed to print (Lerkkanen et al. 2004a; Lyytinen et al. 2004; Lehtonen & Bryant 2005). We expected most of the 9–11-year-old children in the present investigation to be established readers.

In contrast, there are multiple pronunciations of letters and multiple spelling conventions for the same sounds in English, which require more memorizing of specific word spellings. An underlying skill in both spelling systems, however, is phoneme skill, which has long been established as underpinning literacy in English (e.g. Bradley & Bryant 1983; Adams 1990; Snowling 2000; Scarborough 2001) and in Finnish (Lerkkanen et al. 2004b; Puolakanaho et al. 2004).

As earlier research has shown positive relationships between the language play of textism use in the more opaque English orthography, and more traditional English literacy skills (Plester et al. 2008, 2009a, b; Plester & Wood 2009; Wood et al. 2009), rather than the negative relationships alleged by media reports (Thurlow 2006), we investigated the relationships between Finnish language play in textism use in its transparent orthography, and more traditional Finnish literacy skills. A comparison between the two texting language communities can only be made descriptively, because measures cannot be an exact match across the languages.

Research aims

The following research aims have underpinned the present investigation of Finnish pre-teen children’s text message practices:

1 to identify the style and register of written language used by a sample of Finnish 9–12-year-olds in their text messages.

2 to determine relationships between elements of text language use and a range of traditionally identified literacy skills within the Finnish pre-teen sample.

3 to compare Finnish children’s and UK English-speaking children’s types of textisms and their associations with literacy skills.

Method

Participants and procedure

The participants were 65 (34 boys, 31 girls) children, ranging in age from 9;4 to 11;5 (M = 10;7 years). They came from three schools in two parts of Finland (South-West and Central Finland). Parents were asked for their written consent for their child’s participation in the study.

The children were tested individually and in groups, as appropriate to the measures, in familiar spaces in their schools. Each child filled in a short questionnaire about their phone use. Children’s cognitive skills as well as reading and spelling skills were investigated as control variables in parallel with earlier research (Plester et al. 2009b). Vocabulary, reading fluency (three tasks), rapid serial naming, short-term memory and phoneme skills were assessed individually from each child. Spelling and reading accuracy and comprehension were assessed in a group test format during normal classroom time. All testing and scoring was done by a trained native Finnish speaker, known by staff and children at all schools involved.

Three kinds of text messages were recorded after assessments were completed. The children were instructed to copy down on paper all the texts they sent over a weekend, exactly as they appeared on the screens of their phones, and to submit the written record to the experimenter the next week at school. Far fewer children submitted natural texts than elicited texts. Elicited texts were obtained in a classroom setting, where the children wrote on paper the texts they would write in five scenarios translated from those used in Plester et al. (2009b). These scenarios are found in Appendix I in their English versions. When those were completed and the papers given individual code numbers, the papers were redistributed to other class members, who were instructed to write down the texts they would write in reply if they had received the first five messages.
Measures

Receptive vocabulary
A 30-item shortened group test version of the Peabody Picture Vocabulary Test-Revised (PPVT-R, Form L; Dunn & Dunn 1981) was used as a measure of receptive vocabulary. Items for the shortened version were selected based on the data from the full scale administration of the PPVT-R to control children in the Jyväskylä Longitudinal Study of Dyslexia (see Lyytinen et al. 2004).

Rapid serial naming test using the standard procedure (Denckla & Rudel 1976) in which the child was asked to name as rapidly as possible a series of five visual stimuli. Total matrix completion time (seconds) was used as the measure.

Short-term memory was assessed with forward and backward Digit Span test from Wechsler Intelligence Scale for Children III (Wechsler 1999), and a total Digit Span score was also calculated.

Phoneme skills
Phoneme skills were assessed in a Common Unit Phoneme task where two non-words were presented aloud to the child (e.g. ‘vapi’ – ‘lumpe’). The child’s task was to identify the common unit (similar phoneme). The test has been developed in the Jyväskylä Longitudinal Study of Dyslexia project (see Lyytinen et al. 2004).

Reading skill
Reading composite score consisted of four separate tasks: word list reading, non-word list reading and text reading individually, and a normative grade level reading accuracy test in group situation. First, a time-limited (45 s) word list reading fluency test (Lukilasse Graded Fluency Test; Häyrinen et al. 1999) was constructed to assess reading fluency and accurate decoding. The fluency test consists of 90 Finnish words ranging from vowel consonant vowel to multisyllabic word forms. Scoring was based upon the total number of words read aloud correctly within the space of 45 s. Second, a similar list of 90 non-words was used, a subtest of TOWRE (The Test of Word Reading Efficiency by Torgesen et al. 1999). Scoring was based upon the total number of non-words read aloud correctly within the space of 45 s. Accuracy and fluency of non-word list reading was also used because there is usually no variance in the performances on meaningful word lists reading in Finnish language. Third, text reading fluency was assessed through oral reading tasks. Reading speed (words/minute) and accuracy (number of correct words) were measured (Lyytinen et al. 2005). Finally, the subtests of the nationally normed reading test battery ALLU (Ala-Asteen Lukutesti [Graded Comprehensive School Reading Test]; Lindeman 1998) were used to assess grade level reading skills. This subtest was used as a measure of word-level reading accuracy and fluency in context. The test was based upon the total number of words from each set of phonologically similar words connected correctly to the right object within the space of 2 min.

Reading comprehension
Children’s reading comprehension was assessed by Test of Silent Reading Efficiency and Comprehension (TOSREC; Wagner et al. 2009). The TOSREC measures silent reading efficiency (i.e. speed and accuracy) and comprehension. The Finnish version of TOSREC (Lerkanen & Poikkeus 2008) consists of 60 sentences to read silently in group situation (e.g. An apple is blue; Candy is usually sweet.). Children are given 3 min to read and verify the truthfulness of as many sentences as possible. The sum score (max 60) was based on the number of correct items.

Spelling
Spelling skill was assessed by The Lukilasse Graded Word Spelling Test (Häyrinen et al. 1999). The test was assessed by asking the child to write four-syllable words (six items; e.g. ‘professor’ [professor], ‘onnennonkija’ [opportunist] and four-syllable non-words (six items; e.g. ‘moinipuuli’, ‘paunitteri’) items presented orally two times before spelling. The scoring (max 12) was based upon the number of words written correctly.

A composite reading score was obtained by adding Z-scores in word and non-word reading, reading accuracy, text reading fluency and comprehension. A composite spelling score was obtained by adding Z-scores in word and nonword spelling. A composite literacy score was obtained by adding Z-scores in Reading, Spelling and Phoneme Skills.

Text messages
Three kinds of text messages were recorded: natural texts, elicited texts and elicited replies. The ratio of textisms, that is, altered written words, to total words was...
calculated for each of the three kinds of text message, and in total. For each child, the ratio in the stimulus texts was also recorded, the texts to which he or she wrote replies. Where in English usually only one kind of alteration to a word was used to form each textism (e.g. ‘l8r’, a homophone [later], ‘comin’, a g-clipping, [coming], ‘hmwrk’, a contraction, [homework], ‘tb’, an initialism [text back], ‘skool’, a nonconventional spelling [school], ‘wiv’, an accent stylisation [with], Plester et al. 2009b), in Finnish we found that many textisms consisted of more than one kind of change, so we counted all changes to categorize them. Thus, the total number of changes may not match the total number of textisms for some children.

## Results

### Phone experience

Most of the children, 94%, reported owning their own phones. Their mean age of receiving their first phone was 7;3 (standard deviation \([sd] = 1;3\)), so with a mean age of 10;7, their mean length of ownership was more than 3 years. In this sample, 54% preferred to talk rather than text, and only 19% preferred text to talk, unlike findings from UK research (Mobile Life Report 2008; Plester & Wood 2009) that showed strong preference for text over talk, although the proportion of ownership was very much the same. See Appendix II for the questions in the phone use survey. All did not contribute useful data to the study, so only the data above are mentioned.

### The style and register of written language used by Finnish pre-teens

The types of textisms recorded in the Finnish texts are defined in Table 1, with proportion of occurrences for each child who used each type. The relative frequency of occurrence is shown in Fig 1. Figure 2 represents relative frequencies of types of textism from English data.

Contractions, shortenings and clippings were those in addition to forms categorized under accent stylizations, thus representing changes additional to spoken Finnish conventions.

The mean Textism Ratio for Natural Texts was 0.48 (\([sd] = 0.17\)), for elicited texts the mean was 0.33 (\([sd] = 0.21\)), and for elicited replies the mean was 0.41 (\([sd] = 0.26\)). The overall mean textism ratio was 0.36 (\([sd] = 0.20\)). Comparing the three textism ratios, in natural, elicited and elicited replies, shown in Table 2 below, significant correlations were found between natural texts and elicited texts, suggestive of children’s personal styles of text writing. The correlation was also significant between elicited texts and elicited replies, suggestive of a classroom task effect, because there was no correlation between ratios in natural texts and elicited replies. There was also a significant correlation between the ratios for elicited replies and the stimulus

### Table 1. Types of textisms found in Finnish texts, with total occurrences and mean per child of the children using each type.

<table>
<thead>
<tr>
<th>Textisms</th>
<th>Definition</th>
<th>Total occurrences (mean per child)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accent Stylizations, e.g. ‘voisinks’ (voisinko)[could I?] ‘mun kans’ (minun kanssani) [with me]</td>
<td>Orthographic representation of pronunciation of spoken Finnish</td>
<td>1001 (15.6)</td>
</tr>
<tr>
<td>Constructions, e.g. ‘mä’ (minä) [I]</td>
<td>Omitting letters in the middle of the word</td>
<td>322 (6.1)</td>
</tr>
<tr>
<td>Shortenings, e.g. ‘huomen’ (huomenna) [tomorrow]</td>
<td>Omitting the last letters of the word</td>
<td>266 (5.1)</td>
</tr>
<tr>
<td>Clippings, e.g. ‘koht’ (kohta) [a place]</td>
<td>Omitting only the final letter of a word</td>
<td>200 (5.1)</td>
</tr>
<tr>
<td>English, e.g. OK, sorry, sometimes spelled ‘sori’</td>
<td>English words within otherwise Finnish txt</td>
<td>156 (3.0)</td>
</tr>
<tr>
<td>Symbols, e.g. ‘:p, :(, ;-D)</td>
<td>Emoticons or other symbols, e.g. &amp; or @</td>
<td>91 (4.1)</td>
</tr>
<tr>
<td>Grammatical variants, e.g. ‘voitais’ (voimme) [we could] (passive voitaisin used with implied ‘me’ [we] and the end cluster -iin dropped)</td>
<td>Nonconventional grammatical forms, e.g. passive form used by convention rather than 3rd person active</td>
<td>54 (1.6)</td>
</tr>
<tr>
<td>Initialisms, e.g. ‘emt’ (en minä tiedä) [I don’t know]; ‘t:’ (toivoo) [one hopes – but t: is used as ‘from’ in t: Matti]</td>
<td>Words represented by their initial letter</td>
<td>4</td>
</tr>
</tbody>
</table>
Fig 1 Percentage of total textisms used by Finnish pre-teens in natural and elicited texts and elicited replies, by type of textism used. Numbers represent the percentage for all children who used each type of textism.

Fig 2 Percentage of total textisms used by UK pre-teens in natural and elicited texts, by type of textism used. Numbers represent the percentage of textisms used by all children who used each type of textism.
texts to which the replies were written, suggestive of sensitivity to the style of the sender of the stimulus text. The overall textism ratio of 0.36 is very similar to UK findings for natural and elicited texts, for example 0.34 overall, with boys 0.28, girls 0.38 (Plester et al. 2009a). The mean ratio for Finnish boys was 0.37, girls 0.34, not a significant difference.

**Relationships between text ratio and literacy measures**

For the 16 Finnish children who submitted natural texts, their textism ratio in natural texts correlated significantly with no literacy measures and there was a wide range of ratios in those, from 0.15 to 0.81. These ratios have repeatedly correlated positively with literacy measures in English, but no conclusion can be drawn from such a small and widely varying sample of natural texts.

The Finnish textism ratio in elicited texts correlated well with digit span, especially backward, phonological skill, with reading fluency, with Composite Reading, with Composite Literacy, marginally with Reading Comprehension and Vocabulary. Textism ratio did not correlate significantly with Composite Spelling, where these have correlated well in English studies.

**High and low textism users**

We divided the texters into high and low textism users at median, a ratio of 0.35, with 31 in the lower ratio group and 32 in the higher ratio group. Two children’s data were incomplete, so they were not included here. High textism users were 6 months older, $t = 4.091$, $P < 0.001$, although the children came from two school years, so the difference is not a complete match with year group. The high group were stronger in Word Reading ($t = 1.434$, $P < 0.05$); Reading Fluency ($t = 2.324$, $P < 0.05$); Reading Accuracy/Fluency ($t = 2.281$, $P < 0.05$); Reading Comprehension ($t = 2.427$, $P < 0.05$); Digit Span Total ($t = 2.635$, $P < 0.05$); Backward Digit Span ($t = 3.488$, $P = 0.001$). They were marginally stronger in Phonemic Skill ($t = 1.998$, $P = 0.055$), but not stronger in Word Spelling ($t = 0.444$).

### Table 2. Correlations among ratios of textisms to total words, with mean (SD) of ratios for natural texts, elicited texts, elicited replies and stimulus texts to which replies were written.

<table>
<thead>
<tr>
<th></th>
<th>Ratio natural texts ($n = 16$)</th>
<th>Ratio elicited texts ($n = 64$)</th>
<th>Ratio elicited reply ($n = 64$)</th>
<th>Ratio stimulus for reply ($n = 64$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio elicited texts</td>
<td>0.527*</td>
<td>0.504**</td>
<td>0.060</td>
<td>0.060</td>
</tr>
<tr>
<td>Ratio elicited reply</td>
<td>-0.103</td>
<td>0.215</td>
<td>0.408**</td>
<td>0.408**</td>
</tr>
<tr>
<td>Ratio stimulus for reply</td>
<td>-0.103</td>
<td>0.215</td>
<td>0.408**</td>
<td>0.408**</td>
</tr>
<tr>
<td>Mean (SD) ratio of textisms/total words</td>
<td>0.48 (0.17)</td>
<td>0.33 (0.21)</td>
<td>0.41 (0.26)</td>
<td>0.33 (0.23)</td>
</tr>
</tbody>
</table>

* $P < 0.05$; ** $P < 0.01$.

SD, standard deviation.

### Table 3. Correlations among natural and elicited text ratios and literacy measures.

<table>
<thead>
<tr>
<th></th>
<th>Ratio in own texts</th>
<th>Ratio in elicited texts</th>
<th>Ratio in elicited replies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary</td>
<td>0.388</td>
<td>0.324***</td>
<td>0.021</td>
</tr>
<tr>
<td>Rapid naming</td>
<td>-0.009</td>
<td>-0.138</td>
<td>-0.192</td>
</tr>
<tr>
<td>Digit span</td>
<td>-0.175</td>
<td>0.383*</td>
<td>0.430*</td>
</tr>
<tr>
<td>Common phoneme</td>
<td>-0.242</td>
<td>0.343***</td>
<td>0.345*</td>
</tr>
<tr>
<td>Composite reading</td>
<td>0.231</td>
<td>0.448**</td>
<td>0.428*</td>
</tr>
<tr>
<td>Composite spelling</td>
<td>-0.221</td>
<td>0.051</td>
<td>0.233</td>
</tr>
<tr>
<td>Composite literacy</td>
<td>0.154</td>
<td>0.411*</td>
<td>0.396*</td>
</tr>
</tbody>
</table>

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.10$. 

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P > 0.05) or Non-word Spelling (t = 1.157, P > 0.05). Such differences might be expected if age were the driving factor, with spelling rules transparent.

**Predicting reading and spelling from textism use**

In earlier research (Plester et al. 2008, 2009b; Plester & Wood 2009), textism ratio in English had added predictive power for reading scores and phonological awareness, beyond that of age, length of time with a phone, and other individual differences, and had been positively related to spelling scores. Because of the differences between high and low textism users above, sequential regression analyses were used to explore whether the Finnish textism ratio might also predict literacy scores, following the model used in Plester et al. (2009b). See Tables 4 and 5 below. In Finnish, unlike in English, textism ratio did not add power to predict Word Reading after Age, Vocabulary, Short-term Memory, Phonological Skill and Non-word Reading were accounted for. Textism ratio added only marginal power to predict composite spelling. Overall, there were few gender differences, parallel to English findings, so gender was not used as a predictor. Girls did outscore boys in reading comprehension (t = 2.41, P < 0.05) and word spelling (t = 2.54, P < 0.05), but not non-word spelling.

The combination of these analyses suggests that the use of text register appears to be less of a literacy factor in Finnish and more of a maturing social factor.

**Discussion**

The aims of the investigation were to demonstrate the style of text language used by Finnish pre-teen texters, determine how their text language is related to their traditional literacy skills, and compare descriptively these results with earlier results from work with young English texters. The results showed that Finnish pre-teens appear to use about the same proportion of textisms in their text messages as do UK English-speaking pre-teens, but the types of changes made to standard written words show a different pattern from the UK children’s pattern. The most striking difference is that UK children use fewer accent stylizations in their natural texts, somewhat more in elicited texts, where that form predominates in both natural and elicited texts for Finnish children. The Finnish children text what they hear spoken, to a greater degree than UK children do.

The strongest conclusion that can be drawn from these data regarding the Finnish text register is that it very closely approximates spoken register Finnish, and the children demonstrate an adept ‘ear’ for spoken language. Most of the changes made are typical of spoken Finnish, although it is unlikely that many children will have seen spoken Finnish written down. This predominance suggests a willing playful engagement with language, with the light heartedness described by Lepänä & Piirainen-Marsh (2009). The Finnish children also used a mean of three English words in their individual submissions, and we have seen no evidence...
of this form of heteroglossia in the UK text corpus. Finnish children’s openness to language mixing appears greater than the UK children’s, although many of the UK children come from homes where other languages are spoken.

The large number of Finnish accent stylizations is quite different from the UK English children’s pattern seen in earlier research (Plester & Wood 2009) in that English provides many other opportunities for playing with language in its relatively flexible phoneme-grapheme system. The agglutinative nature of Finnish means that formally written words may have several semantically important endings tacked onto the lexical stem, and in text practice, as well as in spoken Finnish, these are abbreviated or dropped when possible, as long as the communicative intent is clear. In both languages, however, there is a strong representation of phoneme skills in the type of textisms employed, and in both languages phoneme skill is highly related to literacy measures.

It is curious that UK children hear variants of pronunciation from birth, as do Finnish children, but UK children do not apply what they hear to what they text as frequently, adopting a different form of phonological play in their texts, a preponderance of homophones such as U or 2, a form that the Finnish language does not afford. It may be that the difference between spoken and written Finnish is much greater than the difference between the registers in English, or that the value placed on a spoken variant differs between the languages, or it may simply reflect different communities of practice. Further research could test these tentative conclusions. It is much clearer in Finnish that text is closer to speech than to writing, because of the predominance of spoken Finnish forms in text. Further comparative study of text practices in various language communities may find broader patterns that can be associated with language structural features. In a pilot study of Norwegian young people’s texting, for example, contractions were not generally used (Baron, personal communication 2009). The standard form of written English prescribed by school authority provides a base from which textism play can diverge, given the variety of phoneme-grapheme conversions that are ‘legal’ in English, where spoken Finnish provides a widely accepted alternative base onto which textism play can join, there being no leeway for play in phoneme-grapheme conversions.

That Finnish children’s spontaneous text language seems unrelated to their standard literacy skills appears odd, when their elicited text language is closely related to those skills, as we have found in English, and phoneme skills in both languages are related to literacy skills. This may grow from the early competence in decoding that is typical of Finnish children. It is also possible that the relationship between elicited texts and literacy skills in the Finnish data is a function of the school settings under which the data were collected, and simply being in the school setting cued up school literacy related skills, where the context of spontaneous texts did not, although the same close relatedness was found in class based and spontaneous English texts. The smaller proportion of Finnish children who prefer text to talk may also indicate a disconnection between texting practice, which is much like speech, and literacy measures. It may also contribute to the small number of spontaneous texts submitted. No conclusion can be drawn because of the few natural Finnish texts submitted, but the close relationship between those individuals’ styles in the two forms of text asks for further study. If, with a larger sample of natural texts the same close relationship in style with elicited texts continues to obtain, it may be a methodological advantage to be able to use class-based elicited texts rather than depend on children remembering to write down texts they send, then remembering to bring the paper into school, when many schools forbid children to bring their phones to school so that the texts could be transcribed directly. However, the correlation between natural and elicited textism ratios is not high enough at 0.527 to conclude that they are measuring the same variable, and that would have to be considered in any research using elicited texts. It will be important to determine whether and how the relationships between text and literacy skills hold over both types of text. The lack of relatedness in this small sample must serve as a caution flag.

Textism ratios have shown additional power in predicting reading and spelling skills in earlier work in English, over and above age, age of first phone, and cognitive and literacy measures (Plester et al. 2008, 2009b), and have predicted directionally over time, where those other variables have failed to predict English textism use over time (Wood et al. 2009). Textism ratio has only shown marginal predictive enhancement in Finnish, using a parallel model to the English analysis, and that only with regard to composite
spelling. However, we must be cautious in drawing firm conclusions from regression analyses of the Finnish data because the sample for whom there was complete data is relatively small, but the results suggest that the language play of texting is less important to Finnish children’s literacy development than it is to English children’s, possibly because of the transparency of the phoneme-grapheme system and its ease of learning.

One unanticipated but gratifying finding was that the textism ratios in elicited replies were closely correlated with the textism ratios in the stimulus texts, but not with the children’s own spontaneous texts. This indicates a metalinguistic sensitivity to the communicative needs of the person who would ostensibly receive the reply, although not necessarily a conscious awareness. The writers focused on the style of the person to whom they replied, rather than their own personal style, when determining how much text language to employ. Children have commented to us informally that they would not use a lot of text language to certain recipients, but would to others, and to see this appear in the data, even from a small sample, asks for further research to determine the extent of young texters’ sensitivity to the communicative needs of others.

That the UK English-speaking children used no words from other languages may also be evidence of this sensitivity, because, although the languages spoken at home by some of the children are South Asian, their recipients may have been from other language communities. Or we may see English emerging even for children as the lingua franca of text. Crystal (2008) gives some examples of implicit use of English in Japanese and Chinese texts, e.g. 39 or 3Q, respectively, each pronounced as ‘san kyu’.

The Finnish children have shown that they have learned through their informal written discourse by text the sociolinguistic appropriateness of text register well enough to target recipients accurately. In itself, this suggests that the media fears expressed about the ruination of children’s language (Thurlow 2006) are wide of the mark. If there are intrusions of text register in more formal schoolwork, the culprit seems more likely to be inattention to appropriate register than inability to write formally. Again, research is needed to clarify the extent to which text language actually does appear inappropriately. Colourful anecdotes are only part of the story.

The relations between text and more extensive traditional writing skills need further study. The Finnish data give us the first indications of positive relations between textism ratio, at least in elicited texts, and reading fluency and comprehension, but do not go as far as extended writing ability. More studies of text language are needed, which use longer writing samples by pre-teens.

There are limitations, which should be taken into consideration in any attempt to generalize these results. First, our sample size was quite small and further replication is warranted before the results can be generalized. Second, although Finnish children begin formal schooling in the year they reach the age of seven, with adequate teaching, the transparency of the Finnish language enables a child to read and spell accurately very rapidly (within a year) compared with children in other languages with more opaque orthographies. The study of Finnish and English text language represents extremes of transparency in orthography. Therefore, textism studies are needed also among children learning to read in a range of transparencies in orthography. We have not looked comparatively into regional dialects and conventions in either Finnish or English. A larger sample in the present study would have enabled a regional comparison. Comparative study could profitably be made of English conventions in various linguistic communities as well. Finally, only a descriptive comparison can be made at this point between Finnish and English, and statistical comparisons cannot be made because the measures of traditional literacy skills in common use in the two literacy research communities are not all identical, although some measures, picture vocabulary scores, for example, differ only in translation.

Conclusion

In this exploratory study, we have seen that Finnish pre-teens use about the same proportion of textisms as their UK peers, but that they use them quite differently, partly because of the affordances of the Finnish language and the conventions of its community of speakers. Its agglutinative nature allows grammatical markers to be left out or abbreviated when communicative understanding is shared as it is more likely to be in informal spoken Finnish, and Finnish text language is closely based on the widespread abbreviated spoken register of the language. English texters play with their language in different ways, but both have phoneme
skills at the heart. The associations between textism ratio and literacy measures are positive in both languages, although only for elicited texts in Finnish. This may, however, be a quirk of the particular small sample of natural texts we had. We encourage further study of text language with regard to the affordances of other spoken and written languages, which can help construct a clearer picture of what children are learning about language as they text and how it contributes to their overall literacy.

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Appendix I: Scenarios

These were translated into Finnish, using forms that would be easily understood by the children, so some are not exact transliterations.

1 It is Saturday morning, it is a sunny warm day, and you don’t have any plans, but you’d like to go somewhere with your best friend. Your parents have told you it’s ok with them if you go out with your friend.

2 You’ve just seen your friend riding in his or her Dad’s brand new car [you decide what kind] and it’s brilliant. You’d love to have a ride because it’s a really sporty, fast one and you love cars. Your friend’s Dad is pretty good natured and very proud of his car.

3 It is Tuesday. You just got home from school, and you have so much homework to do that you don’t think you will be able to go to the club you usually go to on Tuesday nights, but you know one of the others in the club will be coming by to pick you up.

4 You know a secret [you make one up], and you’re dying to tell someone you can trust not to tell anyone else.

5 You’ve just had a text from your Mum. She’s in the middle of the supermarket and wants to know what you’d like for dinner. She’s also forgotten to feed the dog and you know he’s out of food.

Appendix II: Phone Use Questionnaire

1 Gender.

2 Is the phone yours? How old you were when you got it?

3 If you do not have own phone, whose phone you use? How often? (daily, several days per week, ones or twice per week, seldom).

4 What do you most often do with your phone? (call, text, play games, take photos, something else).

5 With whom do you speak most often? (friends, parents, other family members, someone else).

6 To whom you text most often? (friends, parents, other family members, someone else) How often? (several times daily, once or twice per day, couple of times per week, seldom).

7 Do you use proactive texting (ennakoiva teksti- säyttö)? (always, sometimes, never).

8 The keyboard of your phone is: (ordinary, QWERTY, touchscreen, something else – what?).

References


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