Institution: Coventry University

Unit of Assessment: 4

Title of case study: Changing Attitudes to Children's Text Messaging and Literacy

1. Summary of the impact

Wood and Plester conducted the first empirical research into the impact of text messaging on children's literacy abilities, the results of which have impacted on:

- **Public attitudes**, by challenging media accounts of the alleged detrimental impact of texting on children's understanding of standard English;
- **Public policy on literacy in England** by informing Department for Education and National Literacy Trust reports and research regarding the value of informal language use to written language skills;
- **Practitioners in the UK and worldwide**, who now use text language as a way of teaching English to young people.

2. Underpinning research

Wood and Plester led research internationally into the relationship between text messaging and children's literacy development. They were the first to demonstrate empirically that the associations between textism use (use of text abbreviations / alternative spellings) and literacy outcomes were positive, and that textism use may contribute causally to children's spelling development over time. The team were also the first to investigate the educational impact of giving 9-10-year-old children mobile phones for text messaging. Their research revealed no evidence of detrimental impact, and some evidence of positive contribution to spelling outcomes. They also found that children with dyslexia appear to avoid using the textism types that best support literacy development. These studies have been cited as the basis for other work that has been conducted internationally and which has replicated and extended these findings (e.g. Coe & Oakhill, 2011; Kemp and Bushnell, 2011; Durkin, Conti-Ramsden & Walker, 2011; Powell & Dixon, 2011; Drouin, 2011; Grace, et al, 2012). Prior to the publication of these papers, interest in text-speak was limited to linguistic analyses by Thurlow (2006) and Crystal (2008), who argued against the media portrayal of texting as problematic for children's literacy. However there was no published empirical test of this claim.

In 2005-6, Plester (Senior Lecturer at Coventry until retirement in 2009 then honorary research fellow) and **Wood** (Reader then Professor at Coventry throughout) conducted exploratory work to examine whether there was any evidence of an association between text messaging behaviour and academic outcomes. They found that children (N=65) who were more frequent texters tended to do less well on tests of cognitive ability than children who texted less frequently. However, children who used more textisms during a text translation task tended to have better verbal reasoning scores. Data was then collected on a further sample of children (N=35) who completed a spelling task and another text translation task. It was found that the children who used the most textisms were the children who tended to score most highly on the test of standard spelling ability [1]. Although small-scale and exploratory, this was the very first paper published on this topic. *Literacy* is a practitioner journal which is read by members of the United Kingdom Literacy Association, mainly teachers and teacher educators. **Wood** and Plester's paper is the single most downloaded (6,045 downloads between 2008 and 2011) and cited paper in the journal's history, and was shortlisted for the UKLA Literacy Publication Award in 2009.

This was followed up by a larger scale study (N=88) in 2006-7 investigating the relationships between children's use of textisms in a simulated text messaging task and variables such as verbal reasoning ability, spelling, reading and phonological awareness. It was hypothesised that phonological awareness was the variable mediating the relationship between textism usage and literacy scores, as this skill underpins literacy and most textisms are phonetic spellings. The research found that there was significant shared variance between phonological awareness and textism use, but also found that textism use could still explain the unique variance in reading ability after controlling for individual differences in a wide range of other contributing variables [2]. This is the single most cited paper published in the British Journal of Developmental Psychology during the REF census period, attracting almost twice as many citations as the second most cited paper.

Subsequently, the British Academy funded **Wood** to conduct a longitudinal study (2007-9) to

investigate whether the patterns observed were indicative of causal relationships over one academic year. This study (N=119) was both the first substantial longitudinal study to examine the impact of textism use on the development of children's reading and spelling over time, and the first to use samples of children's actual text messages, rather than tasks that simulated text messaging behaviour. It was also the first to determine the direction of causality in the previously reported positive relationships between textism use and literacy outcomes. Once again the research found that children's textism use could predict unique variance in their spelling development over time, but spelling and reading development could not predict textism use, indicating a unidirectional causal relationship [3]. Given these results, a related research question was explored, to determine whether children with dyslexia displayed the same pattern of results. Additional data collected in 2008-9 showed that children with dyslexia appeared to use fewer phonetic textisms than their typically developing peers, and that the observed relationships between literacy variables and textism use were not observed in the sample with dyslexia [4].

Subsequently, **Wood** conducted the first intervention study to examine the impact of giving mobile phones to primary school children as a form of literacy intervention. **Wood** led a Becta-funded randomised control study in 2010 (N=114), giving mobile phones to 9-10 year-old children to use every weekend over a 10-week period. The research collated detailed information on the children's phone usage, monitoring the numbers of messages sent and received, as well as textism use. This study found no evidence of a significant benefit of text messaging over this period when compared to that of the control group. However, when the intervention group's data was analysed longitudinally, the contribution of textism use to spelling development found previously [3] was also found in this sample [5].

3. References to the research

[1] Plester, B., **Wood**, C., & Bell, V. (2008). Txt msg n school literacy: does texting and knowledge of text abbreviations adversely affect children's literacy attainment? *Literacy*, 42 (3), 137-144 (IF: 0.294; Citations: 36)

[2] Plester, B., **Wood**, C. & Joshi, P. (2009). Exploring the relationship between children's knowledge of text message abbreviations and school literacy outcomes. *British Journal of Developmental Psychology, 27* (1), 145-161 (IF: 1.33; Citations: 36)

[3] **Wood**, C., Meachem, S. Bowyer, S., Jackson, E. Tarczynski-Bowles, M. L., & Plester, B. (2011). A longitudinal study of children's text messaging and literacy development. *British Journal of Psychology, 102* (3), 431-442 (IF: 2.103; Citations: 3)

[4] Veater, H.M., Plester, B., & **Wood**, C. (2011). Use of text message abbreviations and literacy skills in children with dyslexia. *Dyslexia*, *17*(1), 65-71 (IF: 1.227; Citations: 3)

[5] **Wood**, C., Jackson, E., Hart., L., Plester, B., & Wilde, L. (2011) The effect of text messaging on 9- and 10-year-old children's reading, spelling and phonological processing skills, *Journal of Computer Assisted Learning*, *27* (1), 28-36 (IF: 1.632; Citations: 9)

Key funding

- **Wood** & Plester, £7439, British Academy, A cross-lagged longitudinal study of children's use of text message abbreviations and their relationship to reading and spelling development. June 2007-December 2008. This project has been developed into a British Academy Case Study and is referred to in their funding brochure 'Inspiring Excellence'.
- **Wood** £7,492, British Academy, Understanding the relationship between texting and spelling attainment. February 2010- August 2011.
- **Wood** & Plester, £19,993, Becta, Children's use of mobile phone text messaging and its impact on literacy development in primary school. March 2008-March 2009.

4. Details of the impact

Wood and Plester's empirical research has not only challenged the conventional tabloid wisdom that textism use is detrimental to the reading ability of children, it has initiated a new line of empirical academic research and directly impacted on public policy and practitioners' use of texting language in their teaching.

Impact dissemination process and dates

The initial data [1] was published in a practitioner journal in order to generate discussion amongst

teachers and within schools regarding how mobile phones were perceived by educators. As a result of this paper and the media debate stimulated, **Wood** was seconded to Becta for a three-month period from January 2010, to review the academic evidence of which technologies improve English skills in school children, which included the mobile phone research. The Becta review is available via the Institute of Education's Digital Resources Archive (http://dera.ioe.ac.uk/1670/).

In December 2012 **Wood** was invited to present a seminar at the Department for Education on the potential of technology to impact on children's literacy, which reviewed the research evidence on e-books and mobile phone use including **Wood**'s own research. **Wood** was then asked to review and comment on the draft National Curriculum for English in Key Stages 1 and 2 with respect to its treatment of technology. **Wood**'s seminar was also attended by OFSTED and Dyslexia Action, and **Wood** was invited to discuss her work in more detail with these organisations in 2013. Coventry data [2] was referred to by Crystal in his book 'Txting: the Gr8 Db8', and the findings [2,3] were also widely disseminated to the general public via a published case study on the British Academy website [a] and through mainstream national and international media [b,c,d,e]. Becta then funded the intervention study [5] to examine the question of whether mobile phone ownership could boost literacy attainment in primary school children. Most recently, **Wood**'s research [1,2,3,4,5] was covered in the BBC4 documentary series 'Growing Children' as part of the programme on dyslexia, screened in August 2012 (average daily reach for BBC4 in the week it was screened: 2.3 million viewers).

Following the media coverage of the research, **Wood** was invited to be a keynote speaker at the *Youth Libraries Group (YLG)* annual conference, with 200 delegates from across the UK (2009). The presentation included reviews of her research with respect to technology and literacy, and discussed the ways in which technology is best integrated with the curriculum. The *Youth Libraries Group* presentation was published as a book chapter in 'Read to Succeed', a text aimed at librarians who work with children and young people (**Wood**, C. 2011. 'How children begin to read'. In: Court, J. (Ed.) Read to Succeed: Strategies to Engage Children and Young People in Reading for Pleasure (pp15-28). London: Facet. Sales figures: 670). **Wood** was also invited to be a panel member by the National Literacy Trust at the launch of their 2012 annual survey results. The survey found children are more likely to read via digital sources than traditional print media, and **Wood**'s research was identified as an important contribution to the debate about the potential of technology to impact positively on children's literacy [f].

Beneficiaries Primary and secondary school teachers, trainee teachers, youth and school librarians, parents, school-age children.

Nature of the impact and evidence

The text messaging research has **impacted on public attitudes** in relation to popular perceptions and understandings of how mobile phones may influence the development of young people's written language skills. Prior to the publication of the research [1] there was an accepted popular media argument that text messaging was responsible for the apparent decline in literacy attainment amongst children. For example, in the Guardian http://tinyurl.com/oyf4hof and famously, in the Daily Mail http://tinyurl.com/y7g7lvc. **Wood**'s research examined these questions empirically, and directly challenged the assumptions about the negative impact of texting behaviour. As a direct result of the Coventry research, online blogs and media coverage worldwide now increasingly challenges the idea of textism use being detrimental to young people's literacy skills, citing the Plester and **Wood**'s research as evidence [for example: b,c,d,e,f].

The work has begun to **impact on public policy within the Department for Education** (DfE). Following the DfE seminar in December 2012, **Wood**'s research [2] was incorporated into a Department for Education report on research evidence on writing [g]. The report acknowledged that there was now evidence that texting could make a positive contribution to children's phonological awareness. **Wood**'s research has also impacted the work of the National Literacy Trust [f]. Director, Jonathan Douglas, states *"We have used it as a central evidence base for our policy work with the Department for Education. It has stimulated further research which the National Literacy Trust itself has undertaken. It has also supported new practices in teaching literacy in the 900 National Literacy Trust schools, members of our network who develop and share innovative evidence-based approaches to literacy...It has helped us to understand the contribution that texting and informal digital communication makes to formal skills associated with writing. We have taken this exploration further with our own research which demonstrates that blogging in*

leisure time impacts positively on writing skills... It has helped us understand the importance of phonological awareness in developing writing skills and that this awareness can be developed in a playful and relevant way. This emphasises the importance of contextualising literacy pedagogy in real life interests and experiences. This has fed into programmes such as the National literacy Trust's Premier League Reading stars project which operates in 1,000 English schools."

In terms of **impact on practitioners**, there is evidence that innovative teachers worldwide were beginning to use 'text-speak' to aid learning English prior to the publication of **Wood** and Plester's empirical research. For example, teachers were using it in Scotland and the Scottish Qualifications Authority (SQA) came under fire for allowing children to write answers in text speak, as long as they showed an understanding for the subject, although pupils who used phrases such as "2b r nt 2b" or "i luv u" would not be able to get top marks' [h]. This example is taken from an article about **Wood**'s research, which suggests even where Plester and **Wood**'s work may not have inspired the use of texting in education, it may have contributed to legitimizing it. In the US, the best selling book 'Teaching Generation Text: Using Cell Phones to Enhance Learning' outlines stories from educators, parents, students, counsellors and anyone using cell phones to enhance learning – suggesting it is currently taking place in the classroom [i]. The blog associated with the book [j] directly references **Wood**'s research, and the value of text messaging in teaching. It also outlines how the research could be employed in the classroom such as to translate poetry into 'text-speak' in order to aid understanding and create useful summaries.

The research is also endorsed by Marc Slater who developed Ultimate Spelling software, a widely used worldwide spelling software programme for students. He has commented in a recent press release, "*This latest research is very interesting. For texting to help kids spell, it sounds great. We just hope that research continues to support these findings as texting seems to be more and more a part of everyday life.*" (http://www.prweb.com/releases/2012/10/prweb9955790.htm)

Conclusion

Wood and Plester's pioneering rigorous empirical research has changed the way that the public, policy makers and educators worldwide view, accept and use text-speak to develop English Language Skills in children and adolescents: *"The full implications of the research to policy makers and practitioners have yet to be fully grasped. They are challenging and, I believe, must lead to questioning of how literacy is taught and assessed. And indeed what literacy is. For this reason I see this research as being at the very cutting edge of the global debate which is defining what it means to be literate in a society driven by, and delighting in, digital communication"* – Jonathan Douglas, Director of the National Literacy Trust.

5. Sources to corroborate the impact

a. **Wood**, C., Plester, B., & Bowyer, S. (2009). Liter8 Lrnrs: Is Txting Valuable or Vandalism? *British Academy Review, 14,* 52-54. http://www.britac.ac.uk/news/news.cfm/newsid/14
b. **Wood** interviewed live on the *Today Programme* (BBC Radio 4). 20th January, 2010. 8:38am. Duration 5:11. No specific listener data for this programme are available but Radio 4 programmes for that week reached 10,029,000 listeners, representing 20% of individuals aged over 15 years.
c. http://abcnews.go.com/Technology/txt-msgs-kidz-spell/story?id=12800449
d. http://blogs.wsj.com/digits/2010/01/21/texting-could-actually-help-kids-read-regular-english/
e. http://languagelog.ldc.upenn.edu/nll/?p=4099 This post is reported by the site owner to have received a minimum of 50,000 views.
f. National Literacy Trust Impact Statement letter on Coventry University research
g. http://www.education.gov.uk/schools/teachingandlearning/pedagogy/a00217040/research-evidence-on-writing
h. http://www.inthenews.co.uk/news/txting-good-for-kids-literacy-skills--$21385429.htm
i. Nielsen, L. and Webb, W. 2011. *Teaching Generation Text: Using Cell Phones to Enhance Learning*. San Francisco: Jossey-Bass.
j. http://teachinggenerationtext.blogspot.com/2012/04/texting-for-literacy.html