

Impact case study (REF3b)
Institution: University of Reading
Unit of Assessment: 25 Education
Title of case study: Increasing understanding of the importance of phonics in the development of early years reading

1. Summary of the impact University of Reading research on precocious (young early) readers identified phonemic awareness (the ability to hear, identify and manipulate small units of sound) as being important for success in learning to read words. These findings have impacted on national recommendations about the teaching of phonics in the early years; influenced the development of a series of television programmes for pre-school children; influenced the teaching of reading in English in Malaysia; and led to involvement in the development of a phonics screener for Year 1 children. The work has also had an impact on classroom assessments and the training of teachers.

2. Underpinning research

The research, carried out by Professor Rhona Stainthorp, has developed in three inter-related strands, as outlined below:

Young Early (Precocious) Readers:

This research was a longitudinal study of children identified as being fluent readers before they began school. Existing research into individual differences in early reading development has traditionally tended to focus on children with difficulties. This research, carried out between 1993 - 96 and funded by the University of Reading Research Endowment Trust, was uniquely designed to identify what makes children good word readers. Through a study of reading and the underlying cognitive processes of a group of precocious readers (children having a mean reading age of 8 years 8 months when aged 4 years 8 months) and a carefully matched group of typical readers (i.e. children not reading fluently before school) throughout their time in Key Stage (KS) 1, it was found that precocious readers show significantly higher levels of phonemic awareness than typical children, which enables them to be independent word readers and also better spellers.

English is acknowledged to have a particularly complex orthography (writing system), which means that children learning to read in English usually achieve independent word-reading skills at a later age than those learning in other languages. Stainthorp's research showed that the precocious readers were able to read both regular and exception words (words that do not agree with a rule) with greater skill, whilst also having the ability to read pseudowords (a string of letters that resembles a real word but doesn't actually exist in the language). The reading of pseudowords is now considered to be an important marker of ability to use letter-sound knowledge to decode unknown words independently. This development is necessary for progress towards independent reading. The research assistant for the project was Diana Hughes, who also conducted her PhD research into the writing of precocious readers, under Stainthorp's supervision (awarded by the University of Reading, 1997).

Diagnostic Test of Word Reading Processes (DTWRP):

This project, jointly authored by members of the Forum for Research in Literacy and Language (FRiLL, currently chaired by Stainthorp), began in 1995 and was overseen by a number of researchers who had all been working on the reading of regular, exception and pseudoword content from different perspectives (Stainthorp's work following on from the Young Early Readers work as described above). The senior collaborators on this project were Morag Stuart, Institute of Education (IOE), University of London; Elaine Funnell, Royal Holloway; and Jackie Masterson, University of Essex/ IOE. This research provided evidence which showed that the ability to read regular, exception and pseudowords impacts significantly on a child's progress in learning to read, culminating in the development of a diagnostic test. The final data for the finished form of the test was collected by Jessie Ricketts whilst at the IOE prior to her appointment at the University of Reading. The research-based test was subsequently published in 2012.

Student teachers' phonemic awareness:

Arising from her earlier work on precocious readers which underpinned and informed the

Impact case study (REF3b)

importance of teaching phonics, Stainthorp conducted research in 1997 (published 2004) which showed that untrained typical adults (i.e. trainee teachers) have limited levels of phonemic awareness which impedes their confidence and ability to teach phonics. The implication of this is that new and trainee teachers need to improve their understanding of the sound structure of English in order to teach word reading successfully.

3. References to the research

- Stainthorp, R., & Hughes, D. (2004). An illustrative case study of precocious reading ability. *Gifted Child Quarterly*, 48, 107-120; DOI: [10.1177/001698620404800204](https://doi.org/10.1177/001698620404800204)
- Stainthorp, R., & Hughes, D. (1999). *Learning from children who read at an early age*. London: Routledge. Published by Routledge – a high prestigious publishing house at the time.
- Stainthorp, R., & Hughes, D. (1998). Phonological sensitivity and reading: Evidence from precocious readers. *Journal of Research in Reading*, 21, 53-68; DOI: [10.1111/j.1467-9817.00042](https://doi.org/10.1111/j.1467-9817.00042)
- Stainthorp, R. (1997). A Children's Author Recognition Test; A useful tool in reading research. *Journal of Research in Reading*, 20, 148-158; DOI: 10.1111/1467-9817.00027
- Stainthorp, R. (2004). W(h)ither phonological awareness? Literate trainee teachers' lack of stable knowledge about the sound structure of words. *Educational Psychology*, 24, 753-766; DOI: [10.1080/0144341042000271728](https://doi.org/10.1080/0144341042000271728)
- Forum for Research in Literacy and Language (2012). *Diagnostic test of word reading processes*. London: GL Assessment. URL: <http://www.gl-assessment.co.uk/products/diagnostic-test-word-reading-processes>
- Stainthorp was inducted into the SIG, Basic Research in Reading Hall of Fame at the 2002 American Education Research Association Conference, New Orleans, USA
- Stainthorp and Hughes were awarded the research publication of the year by Gifted Child Quarterly in 2004.

The publications above have been internally assessed as of being of at least 2* quality.

4. Details of the impact

Influencing the teaching of reading

Following on from dissemination activity such as conference presentations and early publications on findings from the Young Early (Precocious) Readers project, in 1997 Stainthorp was asked to become a member of an advisory group on the development of the word-reading aspect of the National Literacy Strategy (NLS). All schools were sent the NLS by the DfE to provide them with guidelines about how to teach word reading. Though the NLS was not statutory, it influenced the teaching of reading and, in particular, schools began to teach early word reading using phonics instruction, which requires children to learn to map the phonemes (the smallest units of sounds in a language) onto letters (a skill identified as being one achieved very early by the precocious readers). Subsequently, the Government set up the Rose Review to advise on the effective teaching of early word reading. As a consequence of Stainthorp's involvement with the NLS and because of her research work in this area she was commissioned (with Stuart) to write the appendix to the review. Published in 2006, the review recommended that the 'simple view of reading' (which focuses on the importance of word recognition and language comprehension as the basis for the development of fluent and effective reading) should be the recommended framework to inform teachers about the need to teach word reading based on systematic phonics (the instruction of phonics in a step-by-step way), with additional explicit teaching of high-frequency exception words.

Development of a national assessment of phonics knowledge

Impact case study (REF3b)

In 2010, the Coalition Government decided that there should be a national assessment of phonics knowledge for all children in Year 1. Stainthorp was one of a small team of experts asked to advise on the development of this national assessment based on regular and pseudoword reading. Her work on the skills of precocious readers suggests that those children who are going to be successful readers are able to read these types of stimuli with a high degree of success. The assessment programme is designed to provide teachers with evidence about the extent to which their pupils have learned to read words independently and, by implication, the extent to which the teachers have been successful in teaching phonics. Stainthorp was commissioned to provide the video-based training for this programme to all teachers via the national website (<http://education.gov.uk/schools/teachingandlearning/assessment/keystage1/a00200415/phonics>).

Development of school reading programmes

Following the presentation of data from the Young Early (Precocious) Readers project at national conferences, Stainthorp was asked to act as an advisor to Oxford University Press (OUP) on the development of reading programmes for schools. Despite already having a successful school reading programme which was based on learning to read via a whole-word approach, OUP wanted to develop a phonics programme for KS1 which would align with national policy. Stainthorp provided evidence-based advice on the quality of this new phonics programme throughout the REF period. Phonics are now included as part of the Oxford Reading Tree materials for schools

Influencing the training of teachers

Stainthorp (together with Stuart) was asked to give a presentation on issues relating to word reading at the Universities' Council for the Education of Teachers (UCET) conference in 2009. She presented evidence about how successful readers read words and how student teachers need to have explicit training in developing their own phonemic awareness if they are to teach phonics programmes effectively. This had a significant influence on the training of teachers in many schools and Stainthorp was subsequently asked to provide a keynote address to staff and newly qualified teachers at the University of Southampton in order to raise knowledge and awareness of the importance of teaching phonics. She has also provided similar input to Literacy Co-ordinators in schools that are in partnership with the University of Reading, as well as providing training sessions for Wokingham Local Authority (LA) (2007), Buckingham LA (2007), Birmingham LA (2009); individual schools such as The Coombes (2008), All Saints Junior School (2012), Hightown (2012) and John Madejski Academy (2012), and all primary schools in Guernsey (2013).

Diagnostic Test of Word Reading Processes (DTWRP)

As previously described, the collaborative project on word reading undertaken by FRiLL led to the publication in 2012 of the Diagnostic Test of Word Reading Processes (DTWRP). Stainthorp and Stuart have subsequently been commissioned by GL Assessment to provide in-service training on the DTWRP for teachers in Wales, Birmingham and London and have given a presentation at the *Times Educational Supplement* conferences for teachers in Manchester and London.

Feedback related to the DTWRP has been very positive. Comments have included:

"Thank you so much for taking the time to send all the attachments, which are very helpful. I will recommend you to my SENCO and other teachers about CPD training."

Influencing the teaching of reading in Malaysia and Vietnam

In 2009, Stainthorp was commissioned by the British Council in Kuala Lumpur to advise the Ministry of Education (MoE) in Malaysia about using phonics as the first approach to teaching word reading in English. This was followed by a further advisory visit in 2010 to support the writing of

Impact case study (REF3b)

support materials in this area. The success of this work led to Stainthorp being commissioned by the British Council in Hanoi to advise Vietnam's Ministry of Education and Training about the development of their English primary curriculum and the teaching of reading. Prior to this consultancy, Malaysia and Vietnam had not taught word reading in English by a systematic phonics-first approach. The MoE in Malaysia accepted the research-based advice provided by Stainthorp and the teaching of reading in English in this country is now based on phonics teaching. A member of the MoE team has subsequently recognised that there is a problem with the level of knowledge of teachers in Malaysia and is in the process of applying to undertake a PhD with Stainthorp in this area.

Enhancing public understanding

Beyond impact on teaching in schools, Stainthorp's work has had influence in the public sphere. Blue-Zoo, a London-based multi BAFTA award-winning animation studio, has used aspects of her findings about the early phonic skills of precocious readers to develop *Alphablocks*, a BAFTA-nominated CBeebies programme designed to teach children letter-sound correspondences and blending via an evidence-based series of child-centred and exciting programmes. The final programmes have been completed and aired, and there are now plans to develop accompanying parent videos and materials.

Public understanding of precocious reading and phonics skills has also been enhanced through Stainthorp's contributions to radio broadcasts, Teachers TV and local and national BBC news programmes.

5. Sources to corroborate the impact

The individuals below can corroborate the impact detailed (contact details have been provided separately)

Former HMI Director of Inspection OFSTED; can corroborate how the research has influenced national policy on the teaching of early reading

Deputy Director Test Development, Standards and Testing Agency; can corroborate development of a national programme of phonic knowledge.

ELT Development Manager, British Council Hanoi; can corroborate work in Vietnam on the development of the National Primary Curriculum for English.

<http://www.britishcouncil.org/accessenglish-news-vietnam-new-primary-english-curriculum-gets-top-marks.htm>

Director, Alphablocks Ltd; can corroborate the evidence advice Stainthorp gives to ensure that the programme is accurate in terms of phonological awareness and letter knowledge

Senior Publisher, GL Assessment; can corroborate Stainthorp's involvement with the Diagnostic Test of Word Reading and all the dissemination work done over the last two years