Institution: Anglia Ruskin University

Unit of Assessment: 4 (Psychology, Psychiatry and Neuroscience)

Title of case study: Enhancement of early literacy skills in Year 1 children

1. Summary of the impact (indicative maximum 100 words)

This case study demonstrates enhanced early literacy through the application of a novel music-based literacy programme (*Tune Time*) developed by the submitting unit. In two Year 1 classrooms that have implemented the intervention, children have benefited in terms of enhanced phonological awareness as a result of *Tune Time*. The benefit is disproportionately stronger for those with weaker pre-intervention literacy skills, thereby reducing variability in literacy levels in the classrooms. Teachers also benefit from improved pedagogical practice and educational outcomes.

2. Underpinning research (indicative maximum 500 words)

Early phonics skills are currently the subject of increased popular interest due to the introduction of the new compulsory phonics test for Year 1s in 2012. This has led to greater demand for research-based practice concerning methods by which early literacy skills can be boosted. Additionally, there is concern over the focus on synthetic phonics programmes (and exclusion of other approaches to literacy) in classrooms (Wyse and Goswami, 2008; doi: 10.1080/01411920802268912).

Sarah Kuppen, Senior Lecturer in the Department of Psychology at Anglia Ruskin since 2010, is the Principal Investigator and grant holder for a Harpur Trust-funded collaborative research project with Usha Goswami and Martin Huss of the University of Cambridge's Faculty of Education. Her research findings indicate that poor phonological abilities in low IQ poor readers are associated with impairments in auditory processing (Kuppen et al., 2011). Of particular relevance was the finding that children's sensitivity to rhythmic timing was a strong predictor of word reading (in turn suggesting that general sensitivity to the rhythmic structure of acoustic signals is linked to language and literacy outcomes). A longitudinal follow-up established the stability of this relationship, and provided confirmatory evidence that basic auditory processing skills, rather than IQ, determine a child's progress in word reading (Kuppen, 2013). Doctoral work undertaken by Kuppen between 2006 and 2009 provided the initial framework for these investigations. On the basis of the research findings, Kuppen developed the *Tune Time* programme in order to improve early literacy skills among Year 1 children. Preliminary investigation of programme efficacy explored the impact of rhythm and music/singing in relation to the development of phonological awareness, particularly rhyme awareness, in three schools in Bedford. This was the only research to date which compared the impact of sung over and above spoken rhythmic rhymes in a Year 1 classroom programme.

3. References to the research (indicative maximum of six references)

Both papers are published in internationally distributed peer reviewed journals. The successful grant applications listed below were peer reviewed.

Kuppen, S., Huss, M., Fosker, T., Fegan, N., & Goswami, U. (2011). Basic auditory processing skills and phonological awareness in low-IQ readers and typically developing controls. *Scientific Studies of Reading*, *15*(3), 211-243. doi:10.1080/10888431003706291.

Kuppen, S., Huss, M., & Goswami, U. (2013). A longitudinal study of basic auditory processing and phonological skills in children with low IQ. *Applied Psycholinguistics*, 1-33. doi:10.1017/S0142716412000719

Harpur Trust: £5,000 grant awarded to Sarah Kuppen; *Tune Time* 2012-2013.
Harpur Trust: £21,000 grant awarded to Sarah Kuppen; *Tune Time Phase II* 2013-2014.

http://www.harpurtrust.org.uk/

4. Details of the impact (indicative maximum 750 words)

The underpinning research (Kuppen et al., 2011; 2013) provided the theoretical basis for the development of *Tune Time* which has now been formally adopted in two Year 1 classrooms since Autumn 2012. There were four stages from inception of research to the provision of the *Tune Time* programme: 1. basic developmental research on auditory processing and phonological awareness; 2. development and testing of new tools to enhance early literacy; 3. testing interventions in the classroom; 4. adoption of *Tune Time* by teachers of Year 1 children.

Impact of the *Tune Time* intervention on literacy has been assessed in applied, classroom settings in Bedford, funded by the Harpur Trust. There are three conditions: the *Tune Time Music* group where the *Tune Time* rhymes are delivered as songs with strong tunes, the *Tune Time Spoken* group where the rhymes are delivered as poems but also use actions and strong rhythmic beat and the *No Supplementary Programme* group (essentially a control group) where children receive no extra programme in addition to their normal synthetic phonics programmes. Materials feature rhyming couplets and use high frequency and regular words as appropriate for the Year 1 classroom. When performed as songs, *Tune Time* uses strong tunes with prominent beat. Action is used in both *Tune Time* groups to underline key words and to aid comprehension of new vocabulary. The *Tune Time* songs are based on common Year 1 cross-curricular topics and thus promote integrated classroom learning.

The development and implementation of the *Tune Time* intervention has been entirely driven by Kuppen, based on the underpinning research described above. Children in the *Tune Time* literacy programme make more progress in phonological awareness (the ability to identify and manipulate the sounds in language - the strongest predictor of reading outcomes) than children who were in standard synthetic phonics programmes alone. Additionally, children in the *Tune Time Spoken* programme with the weakest pre-intervention literacy skills show a disproportionately better level of improvement than children with initially stronger skills, indicating that *Tune Time* is particularly beneficial for those children who struggle with language acquisition. Inclusion of pre– and post-tests of phonological awareness provides a measure of progress across the school term so that continued effectiveness of the intervention is monitored. Through follow-up interviews, *Tune Time* was judged to be both enjoyable and effective by teachers and students. The primary non-academic beneficiaries are children (stronger literacy skills) and teachers (improved pedagogical practice and outcomes).

We have shown that standard literacy learning for Year 1 classrooms can be improved through the addition of the *Tune Time* programme. The combined approach provides a more effective method for promoting literacy and closing the ability gap between children with weaker and stronger skills. As a marker of the effectiveness of the *Tune Time* programme (over and above standard synthetic phonics teaching), we have received funding to deliver the programme in 10 schools in Bedford in 2014, and we have received declarations of interest from 40 schools in total. It has already been adopted as a classroom programme by Shackleton School in Bedford and the Head Teacher has confirmed that it has had a positive impact in the two classes in which it has been implemented (see sources to corroborate impact). The Education Endowment Foundation and Nuffield Foundation have invited applications for further funding with the goal of making *Tune Time* available to all UK Year 1 classrooms.

5. Sources to corroborate the impact (indicative maximum of 10 references).

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