

Teachers' Use of Crick Software to Support Literacy

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Introduction

This brief report complements a longer report exploring teachers' use of technology to support literacy in the classroom¹, funded and supported by Crick Software in 2018. The survey received 219 responses from 166 schools. Just over half (53.9%) were from teachers based in primary schools, and almost 4 in 10 (37.9%) from secondary schools. The remainder were from a range of educational settings, including Pupil Referral Units and special schools.

One question in the survey invited participants to share their experience of using Clicker, and any impact they had noticed on pupils' literacy attitudes, behaviour, confidence or skills, through a free comment box. Respondents using Clicker (n=59) shared a number of examples of the platform improving pupils' writing enjoyment, engagement and confidence, facilitating writing for those with poor motor skills, increasing writing self-regulation and resilience skills and helping children with diverse needs take part in meaningful literacy practices.

¹ Picton, I. (2019). *Teachers' Use of Technology to Support Literacy in 2018*, London: National Literacy Trust.

Overcoming barriers

The strongest theme arising in teachers' comments related to the way in which Clicker had helped pupils overcome a range of barriers to writing, indicating how the affordances of technology facilitated learning and expression in children who struggle with methods that are more traditional. Echoing Goldberg et al.'s findings relating to motivation and engagement (2003), many comments focused on the positive impact of the platform on pupils' attitudes, particularly their writing enjoyment, engagement and confidence:

"We use Clicker to challenge the higher ability and support the lower ability children. Children seemed much more engaged with learning when using Clicker. A lot of my reluctant (boy) writers will perform better if using Clicker."

Primary teacher, Cumbria

"Definitely increased motivation to want to write and learn than with pencil and paper."

Junior school teacher, Birmingham

"Reduced anxiety, improved confidence and fluency of writing, more willing to 'have a go'."

Primary teacher, East Sussex

"...to see that they are able to produce something in print is very powerful and has broken down some powerful barriers to their learning."

Primary teacher, West Sussex

Facilitating self-expression

Several schools mentioned how the platform facilitated self-expression for pupils who had trouble with the mechanical, rather than the creative, aspects of writing. In a 2018 article, Professor Bekkering of Radboud University observed that apps could be beneficial for teaching the technical aspects of writing, "particularly for boys, [who] are on average less good in fine motor skills [and] often spend their entire elementary school time learning to write neatly" (cited in Renckens, 2018). He further theorised that early struggles in this area might contribute to negative associations with literacy that could further affect boys' later literacy development. Reflecting Bekkering's observations, one teacher described how they had used Clicker to help a pupil construct sentences "without the limits of pencil control". Other comments concurred:

"There is a more positive attitude towards writing. It is easier to see which children have the underlying ability but struggle with motor coordination [or] have difficulties with spelling and language."

Primary teacher, Cambridge

“We have used it for children who have problems recording but have lots of ideas and writing is their barrier. Children love using Clicker.”

Primary teacher, Oxfordshire

“Removes barrier of not knowing how to spell a word allowing pupils to focus on creating language. Develops confidence and engagement.”

Primary teacher, Fife

“...develops ...sentence structure, grammar and punctuation. Allows them to record more advanced ideas than they could write by hand.”

Primary teacher, York

Writing self-regulation and resilience

Some teachers indicated that being more able to work independently had improved pupils' writing self-regulation and resilience skills, and even their wider behaviour:

“Gives SEND students more confidence when writing, encourages them to slow down when working and gets them to think about what they are writing. Already seen a massive improvement in progress.”

Special school teacher, Warrington

“It has given them more confidence to write longer pieces. Has helped extend their use of vocabulary ...and focus for longer in writing sessions.”

Primary teacher, Peterborough

The children are engrossed in the laptop instead of not knowing what to do and disturbing the class ...It makes it easier to get their thoughts down.”

Primary teacher, Manchester

Inclusivity

Another very prominent theme in feedback on Clicker was inclusivity, with the software allowing a wider range of pupils better access to learning across the curriculum. Indeed, several studies have noted that particular features of Clicker, such as speech-to-text and word grids, can help children (especially those “at-risk or who have disabilities”) develop emergent reading and writing skills (e.g. Karemaker et al., 2008; Parette et al., 2009).

“It helps amazingly with our SEN pupils; we are in the process of rolling it out across the school.”

Primary teacher, Cornwall

“Love the ready-made grids and how everything can be adapted to different ages and needs. Pupils really enjoy the graphics and its instant gratification. It boosts pupils’ confidence and allows them to access the curriculum alongside their peers but at a level that suits them.”

Primary teacher, Manchester

Helping children with diverse needs take part in meaningful literacy practices

Several studies have explored how technology can support and enable children with diverse needs to “be emancipated from being excluded from meaningful literacy practices, and make rich meaning” (Oakey, 2017). For example, Price-Dennis et al. (2015) describe how using technology to take part in a range of digital learning activities allowed a pupil identified as having a learning disability to participate fully in all activities, supported by classmates, while incorporating “all of the elements of the writing and composing across modalities”. Similarly, several teachers shared examples illustrating how Clicker had given their non-verbal pupils a voice:

“I have used Clicker with students who require switch access to record their literacy. They ...use scanning to write; it can be slow ...but it has enabled us to have ‘conversations’ with the student and work out what he does know.”

Special school teacher, Lincolnshire

“Without Clicker my pupils simply couldn’t access literacy. Pupils with eye gaze and switches are able to write and access the resources made for everyone. My more able pupils ...benefit from the spell predictor, wordbanks and audio feedback. I am also an adviser for assistive technology and Clicker is my go to. There is no competition.”

Special school teacher, Lincolnshire

Finally, commentators such as Renckens (2018) have noted how digital texts can help children with certain language deficiencies, ADHD or types of dyslexia. Specific learning needs featured in several comments. For example, one teacher described how the software enabled a dyslexic child who found it very difficult to write down her ideas to hear her sentence read aloud, see any words spelled incorrectly and choose the correct one from a selection. The teacher noted the impact this had on the pupil’s self-esteem:

“She will often ask to use it in lessons. It has given her the confidence to believe in herself as a writer.”

Primary teacher, Cambridgeshire

Case study: Using technology to enable pupils

Without technology, we're not preparing children for life. They are comfortable around it, and software can do so much, for example, helping children to speak or express themselves. There are children with physical disabilities who couldn't write with a pencil, but might be able to use a mouse to produce work. There are really no reasons why children shouldn't be able to take part or fit in with their peers.

In mainstream, some classes use programmes like Clicker for sentence matching activities or to support longer pieces of writing. Our problem is having the hardware to be able to run the most up-to-date software, and to have enough equipment to allow all pupils to do the same task as a group. It can also take time and training to get the best out of new software, and to set it all up at first, so some teachers need to be encouraged to see the long-term benefits.

SENCO, primary school, South West England

Case study: The educational technology consultant

Educational technology is crucial to my job working with children with physical disabilities. I teach two days a week, then do three days' outreach for the county council. This involves providing access to learning for children who need extra support by loaning laptops and other equipment (for example, eye gaze equipment).

In terms of software, we couldn't live without programmes like Clicker and Clicker Docs. I use it all the time to support writing, and some pupils use Clicker on their laptop or with an adaptive mouse and keyboard. We also use Clicker Connect and Clicker Sentences. A range of children can really benefit from the way technology supports their communication. One Year 7 pupil who really struggled to read and write and had very low confidence was actually able to teach himself using Clicker's auditory feedback and the spelling predictor.

In my role I do see teachers who haven't had much training, and devices might then be abandoned due to a lack of knowledge about how to use them effectively. Some consider technology to be 'cheating' and may not realise the value of giving pupils access and exposure to the proper spelling of words, and whole words. For those teachers, changing their attitudes involves giving them confidence, letting them see how things like perfect spelling might be holding pupils back. Of course funding is always an issue, too – I might recommend some equipment but there won't be the money for it. It's also important to recognise where technology is and isn't useful, based on the pupil. For some, it may be just as quick to support their learning on paper. However you do it, showing them that they have potential to learn is fantastic.

Teacher and consultant, East Midlands

Discussion

Literacy that enables learning and employment is increasingly a digital experience, and while the definition of literacy is being reshaped by the technological context, it is essential that the education sector's response is based on evidence identifying how digital technologies offer opportunities to raise literacy levels. An important first step is to work with teachers to establish an accurate picture of how technology is being used in classrooms today to support literacy teaching and learning, and what platforms and approaches are most effective for pupil outcomes. Indeed, as stated almost two decades ago, "Determining the actual, as opposed to the possible, impact of the new technology on literacy could be one of the most interesting research challenges in this field" (Hannon, 2000).

It is also important to recognise the popularity and relevance of technology in the lives of children, young people and families, to investigate how its various affordances may support the components of literacy and how features designed to capture and retain attention may be used to engage and immerse children in effective learning. Findings from the wider survey from which data for this report was taken² indicate that teachers believe that technology does this well, and that it can be a particularly effective tool for creating a classroom that supports improved learning outcomes for all pupils. However, respondents reported low levels of access to the equipment and wifi needed to allow a regular and ongoing process of learning and development, suggesting that investment in hardware should be followed by investment in the responsive training and research needed to ensure technology is used effectively.

This type of educational transformation will require support from policymakers and the technology sector, in consultation with academics, educationalists and learners. It is encouraging that, as a practical step in this direction, the Department for Education is working with the Chartered College of Teaching and the British Educational Suppliers Association (BESA) to encourage better collaboration between the technology sector and educationalists (DfE, 2018).

In conclusion, our survey showed that a high percentage of teachers feel technology is an effective tool for supporting pupils' access to, and enjoyment of, traditional and newer literacy practices. Responses and comments also emphasise its role in enabling those who struggle to access literacy learning through print-based formats, helping these children overcome barriers, facilitate self-expression, improve writing regulation and resilience and ensuring children with diverse needs can take part in meaningful literacy experiences.

² Picton, I. (2019). *Teachers' Use of Technology to Support Literacy in 2018*, London: National Literacy Trust.

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