

## PhonicStick®: A novel device for children with Complex Communication Needs

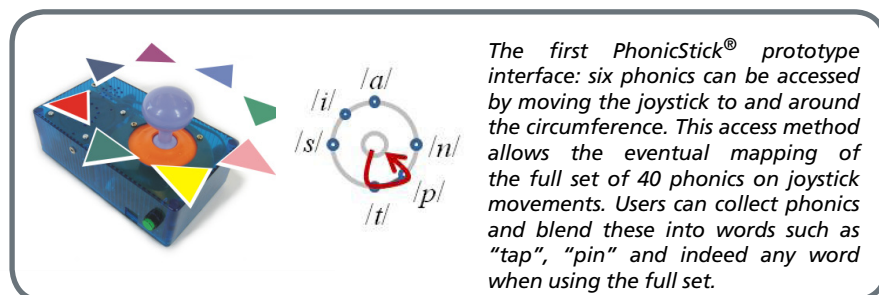
Researchers at the University of Dundee have developed a novel teaching and communication device – the PhonicStick® - for early learners. The device facilitates language teaching and learning without the need for a visual, literacy based interface: an ideal solution for children with complex communication needs (CCN).

### Background

Augmentative and Alternative Communication (AAC) solutions help individuals to communicate through synthesised speech. AAC solutions take various forms but in the main work using visual interfaces, often a challenge for early learners with CCN.

### The Opportunity

The PhonicStick®, which takes the form of a joystick, allows emergent communicators to generate words without the need for a visual interface. The system is based on well-established letter and sound-based literacy programmes (phonic based reading schemes) for children. An initial prototype device has been built and evaluated in several successful user trials.



*The first PhonicStick® prototype interface: six phonics can be accessed by moving the joystick to and around the circumference. This access method allows the eventual mapping of the full set of 40 phonics on joystick movements. Users can collect phonics and blend these into words such as "tap", "pin" and indeed any word when using the full set.*

### What makes the Phonic Stick unique?

- Designed for emergent communicators – no need for literacy skills
- No visual interface – cognitive load on the user is reduced
- Unlimited vocabulary possible
- Positive effect on children's literacy acquisition
- Encourages independent play with language
- Learning based on sound rather than orthography
- Joystick interface can be used by those with motor impairments

### IP Status

The technology is protected by a patent application, first published on 9<sup>th</sup> August 2007 as WO 2007/088370 A1.

### Commercial Opportunity

The University is seeking a commercial partner for this technology and contact is welcomed from organisations interested in developing, licensing or exploiting this opportunity.



### The PhonicStick®:

- Novel AAC solution for early learners
- Learning based on sound (phonics)
- Prototype available with substantial user trial data
- Commercial rights available

#### For more information contact:

Research and Innovation Services  
University of Dundee  
11 Perth Road, Dundee, DD1 4HN,  
Scotland, UK

Tel: +44 (0)1382 384426

Fax: +44 (0)1382 386765

Email: [research@dundee.ac.uk](mailto:research@dundee.ac.uk)

Web: [www.dundee.ac.uk/research](http://www.dundee.ac.uk/research)

The contents of this document are for information only and should not be taken as definitive of the technology or the intellectual property rights relating thereto.