

Tele-Healthcare



Olly Speaks will improve accessibility to speech and language therapy around the world as SLPs can offer therapy services remotely, permitting children to remain in the comfort of their home while the SLP conducts intervention through the device. With dual language speech recognition and continuous progress monitoring, *Olly Speaks* will facilitate assessment of children's phonological and vocabulary skills. This will reduce the effort and time required to diagnose related difficulties.

Testimonials



"Being an interactive device it has the capability to entice and motivate the children to learn and develop their speech, language and communication skills." *Dr. Rita Micallef (Professional Lead Speech Language Pathologist and Senior Lecturer, University of Malta)*



"It is really great to see products that integrate education and technology. I like that the activities are designed in such a way that support language development in Maltese and English, in a way that is engaging and motivating." *Veronica Montanaro (Freelance Speech Language Pathologist and Visiting Assistant Lecturer, University of Malta)*



"An innovative and appealing way for children to enjoy therapy, both with their SLP and with their parents." *Maria Camilleri (Speech Language Pathologist, Department of Health, Malta)*



Contact Us

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This is a multidisciplinary project involving:

- Department of Industrial and Manufacturing Engineering
- Department of Systems & Control Engineering
- Department of Communication Therapy
- Department of Microelectronics & Nanoelectronics
- Flying Squirrel Games



**L-Università
ta' Malta**

This project is coordinated by Dr Ing. Philip Farrugia.

The SPEECHIE Project is being financed by the Malta Council for Science and Technology (MCST) through the FUSION Technology Development Programme 2016. (R&I-2015-042-T)



The Malta Council for
Science & Technology



Meet Olly Speaks



Motivation

Keeping children motivated during speech and language therapy is imperative for effective and engaging intervention. Children need to practise their communication skills on a daily basis but without appropriate means it is difficult for parents to create a rewarding environment that encourages children. Furthermore, Speech and Language Pathologists (SLPs) require several resources and effort to monitor and assess children's progress.

Olly Speaks is a smart educational device that entices children to engage with the designated exercises by providing an interactive and multimodal learning experience while keeping track of their progress.

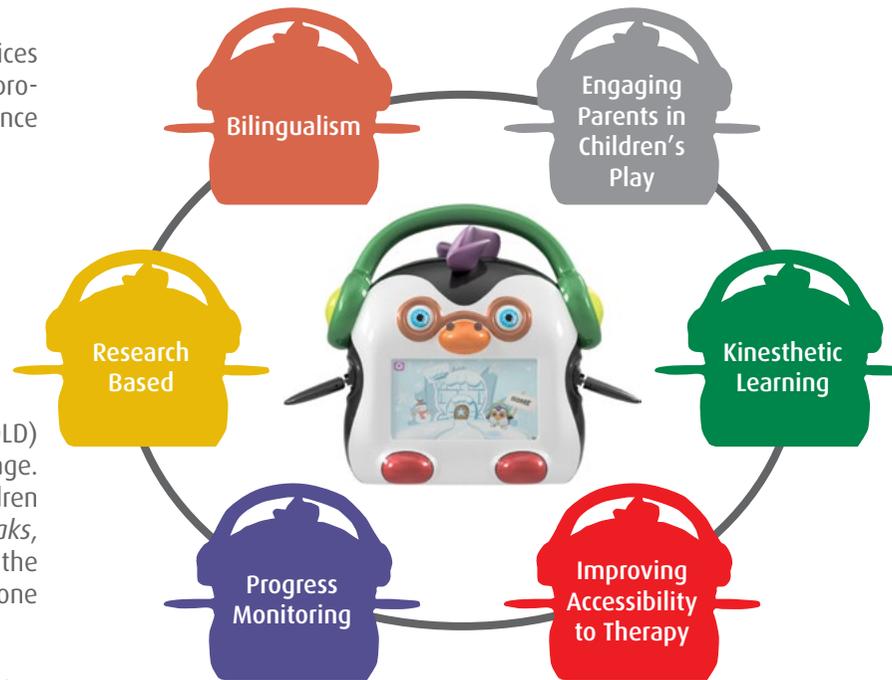
Speech and Language Skills

Children with Developmental Language Disorder (DLD) find it difficult to understand or use spoken language. This condition makes it more challenging when children have bilingual or multilingual exposure. With *Olly Speaks*, SLPs have the flexibility to tailor therapy activities to the child's needs, focusing on multiple languages or just one language.

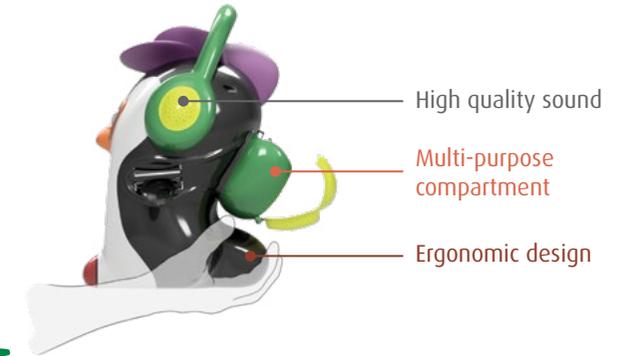
Activities also enable assessment of both comprehension and spoken language. An in-built Speech Recognition System evaluates the language capabilities of a child from a phonological and vocabulary point of view.

Features

Research and industry are the driving forces behind *Olly Speaks*, aiming to improve therapy both within and beyond the clinical setting. Furthermore, a user-centred design approach was taken during the design and development of the device by involving children, parents and SLPs at various stages.



Olly Speaks can be used by all children (3-5-years-old) wanting to practise the Maltese and English languages, but added services are available for those who will be using the smart device for speech and language therapy. In the near future, support for more language pairs will be added to the device.



Olly Speaks is a toy and not a tablet. It is through play and toys that children learn how to interact with their environment and other people while developing their cognitive, speech, language, and motor skills. The onboard technology allows children to comprehend and practise language through a kinaesthetic learning experience that involves physical activities.

The games are based on a number of themes, namely home, fruit stall, farm, general store, dress up, food, play area and people. These touch on everyday words and their difficulty can be varied based on children's developmental level until they master the speech and languages skills of typical 5-year-old child.

