



Leon is a teenage boy who has a diagnosis of Cerebral Palsy. He has a very keen interest in football, and he is an avid fan of Manchester United. He has a determined personality and is motivated with a wide range of activities, refusing to let his disability be a barrier.

Leon was referred to the Assistive Technology team by the Speech and Language Therapist at ATtherapy to consider solutions to supporting him with his schoolwork.

Leon was struggling to type using the keyboard on his laptop due to involuntary movements, increased muscle tone and impaired fine motor skills. This meant he was finding it difficult to keep up with his written work at school. His handwriting could be quite difficult to decipher, and he also found handwriting very tiring.

The assistive technologist looked at converting handwriting to text apps that could be used on Leon's laptop and to install PenFriend, (a word prediction software) onto his laptop.

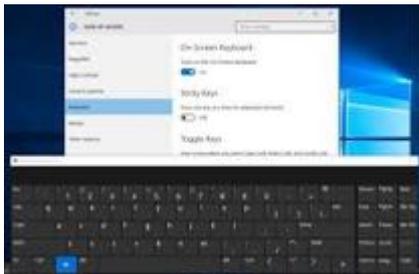
During the first visit it became apparent that even with a handwriting to text convertor app, this would require a great deal of time and effort for Leon to use as a consistent method of recording his writing. Text to speech was considered but ruled out, partly due to Leon's speech quality and partly due to potential disruption in class.

Further options were considered. Leon loves Fifa football on his Playstation 4 and due to his passion for this game, Leon had mastered using the PS4 controller (which is an adapted controller) to control the onscreen keyboard to choose the football players for his team. He was able to spell the names of the players he wanted with great accuracy and speed.

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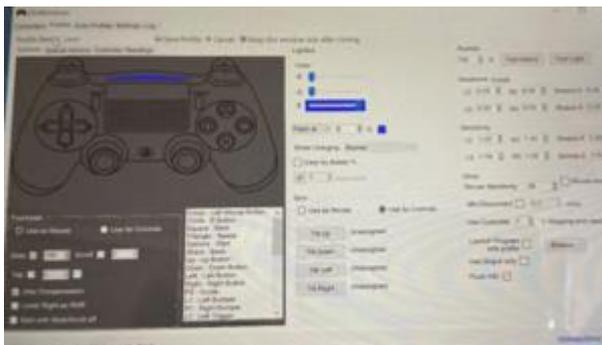


The assistive technologist investigated the possibilities of using the PS4 controller to access the onscreen keyboard in Windows on the laptop.



Windows on screen keyboard

Through research, a piece of open source (free) software called DS4windows was found that could be used to map the PlayStation controller joysticks and buttons to emulate the mouse movements needed to use the onscreen keyboard in Windows. This was trialled by the Assistive Technologist and found to be successful.



DS4 software

This software was downloaded on to Leon's laptop and a second PS4 controller was used for the mapping of the joystick and buttons. LWP was able to choose which buttons he needed for his writing for example.

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Square = double mouse click

Cross = enter

Leon can now use Word with the onscreen keyboard alongside the DS4 software and can be able to type a long paragraph using the PS4 controller.

Leon was delighted with the controller and thought all his friends would be very impressed that he was using PS4 controller to type his work, though was a little bit worried his teachers might think he was playing computer games!

Training was delivered to both home and school in the setting up of the DS4 and using it with the Windows on screen keyboard.

Leon's writing speed continues to increase in speed, and it is hoped that Leon can use the PS4 controller and the DS4windows software in the coming years as he studies for his GCSE's and during examinations.