OrCam Wearable Text-to-speech Technology
Trial Report
August 2020

Queensland Government

Abstract

The objective of this trial was to identify the capacity of the OrCam technology to increase student engagement with the curriculum, as evidenced through increased independence in task engagement and completion across a range of learning environments.

The OrCam is a wearable technology that speaks digital or printed text. It is attached to a pair of spectacles or held by hand. The user points the camera contained in the OrCam towards the text resulting in the device speaking the text aloud.

While the technology was designed for users who are blind or have low vision, it has the potential to support students with reading difficulties or a print disability. This trial focussed on students experiencing difficulties in engaging with written content.

Feedback from the trial identified that the OrCam can enhance student engagement with written content. The trial also identified the OrCam is considered an effective tool for students to engage with and access the curriculum. Increased engagement with written content when using the OrCam was observed by schools during the trial.

Improvement in student outcomes was observed during or immediately following the trial. School staff noted students were less distracted during lessons, less frustrated with the lesson content and less likely to engage in disruptive behaviour when using the OrCam. Students were more motivated to select books and to engage with written text more often. Student confidence and attention to reading tasks was reported as significantly improving across many learning areas when using the OrCam.

Contents

Produced by: State Schools - Disability and Inclusion Branch

Copyright statement

Trial background

It is critical for students with reading and writing difficulties to have appropriate and suitable means of engaging with the curriculum. This often involves the use of a suite of technologies, including hardware and software, covering a range of access capabilities.

The OrCam wearable text-to-speech technology is an emerging technology that enables a student to interact with digital or printed text. When using the OrCam, the student looks towards the text and the device will speak the text aloud. While the technology was designed for users who are blind or have low vision, it has the potential to support students who have reading difficulties or a print disability. The OrCam technology has the capacity to enable students with a wide range of literacy support needs to become independent in engaging with reading materials, becoming less reliant on external support, provided either by staff or more extensive systems of text recognition and speech. It has the potential to increase student independence, thereby increasing motivation, engagement and participation with the curriculum.

This project has explored the OrCam technology and its capacity to engage students with reading difficulties that are currently a barrier to their ability to access the curriculum. The project trialled the technology with a cohort of students identified by their schools as having the capacity to use and benefit from this technology.

Strategic Alignment of Project

The trial aligned with the Queensland State Schools Strategy 2019-2023 to improve the participation and achievement of students with disability, through the strategies:

- Create inclusive opportunities for all students to reach their potential as successful people; identify evidence informed teaching practices to extend all students.
- Create an inclusive culture of engaging learning that improves wellbeing and achievement, values diversity and responds to student needs and interests.

The project also aligns with the Queensland Department of Education Inclusive Education Policy, in particular the core features of Inclusive Education as identified in the United Nations general comment 4 (2016). The core features where particular alignment is evident are:

- **Accessible learning environments**
  Our schools, educational settings and classrooms will be designed to enable students of all backgrounds, identities and abilities to access and fully participate in learning. We ensure that students can access and participate in school activities and events.
- **Confident, skilled and capable workforce**
  Our school leaders, teachers, department staff, support staff and volunteers build on their expertise to implement inclusive education practices. Good practice, based on evidence, is shared and cultural capability is strengthened. Continuous professional learning and mentorship is encouraged and supported.

Objectives

The goal of the trial was to identify whether the OrCam technology enhances engagement with the curriculum as evidenced through increased independence in task engagement and completion across a range of learning environments.

On successful completion of the trial, it was expected to:

1. identify learning contexts in which the OrCam technology may be used by students with reading difficulties;
2. identify the considerations required for the effective use of the OrCam wearable technology for students with various literacy support needs and capabilities; and
3. advise how text to speech wearable technology may enhance student learning and access to the curriculum.

Timelines

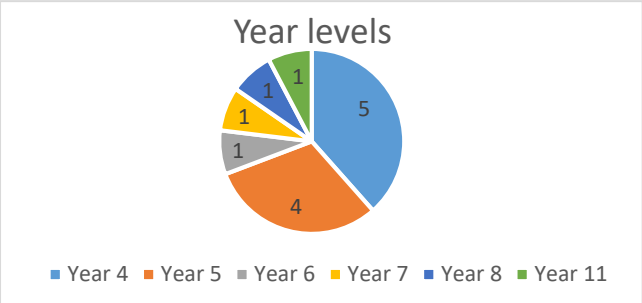
The trial was implemented from the beginning of Term 3 2019, to the end of Term 4 2019. The deployment of the trial devices commenced in Term 3 2019, with the schools commencing a full trial of the devices with students the following term.

Trial schools

Nine schools were approved to participate in the trial.

School	Region	Sector	Date commenced
Aurukun State School	Far North Queensland	Prep - 10	9th September 2019
Blackwater North State School	Central Queensland	Primary	12th September 2019
Brighton State School	Metropolitan	Primary	26th August 2019
Middle Ridge State School	Darling Downs South West	Primary	3rd September 2019
North Lakes State College	North Coast	Prep - 12	29th August 2019
Park Avenue State School	Central Queensland	Primary	12th September 2019
Pormpuraaw State School	Far North Queensland	Primary	12th September 2019
Sarina State High School	Central Queensland	Secondary	13th September 2019
Varsity College	South East	Prep – 12	27th August 2019

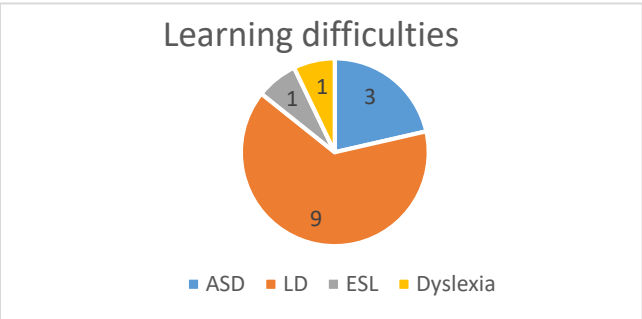
Trial Students



Each of the trial schools used the OrCam device provided with at least one student.

Detailed information was received for thirteen students involved in the trial. While these thirteen students are used to form the basis for trial outcomes there were more students who tried the device during the trial period.

Students ranged from years 4 to 11 with the majority in years 4 and 5. This cohort accounted for 70% of the students involved.



Nine students were reported with difficulties in engaging with or understanding text-based content due to a learning disability such as dyslexia. Two students were identified with autism spectrum disorder (ASD), while one student was identified with multiple impairments. One student did not have any particular diagnosis but was reported as having significant reading difficulties as evidenced by consistent low achievement. The remaining student involved in the trial used English as an additional language or dialect and was approximately 2 years behind peers in reading.

Reported details of the learning difficulties encountered by the target students when engaging with the curriculum are listed below.

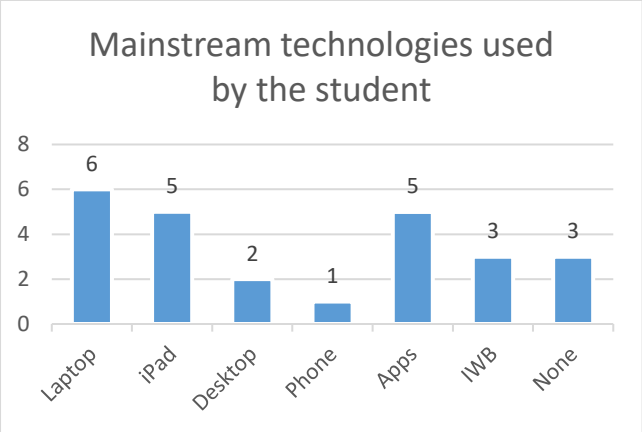
Dyslexic tendencies create challenges in many areas of the curriculum that rely on reading and writing text, spelling, comprehension, working memory processes.
Unable to read simple texts despite many different attempts and methods trialled. He won't engage with tasks that require reading or writing.
Cannot read, unable to access written content.
Dyslexia and dysgraphia.
Very limited phonological awareness. Difficulty in reading affects all learning areas. As a result becomes frustrated and will often become very loud or leave the classroom.
Very low academically and cannot read well at all.
Currently struggles with working memory. Operates at a very low level compared to similar aged peers. Ability to focus attention and quick scan, discriminate between and sequentially order visual information is extremely low as noted in many assessments. Overall reading ability is very low, specifically reading familiar and unfamiliar words. Has difficulty applying sound awareness and phonics to decode nonsense words.
Access to curriculum content contained in text due to a 2 year delay in word identification skills.
Cannot read. Extremely reluctant learner.
Very low literacy level, poor concentration.

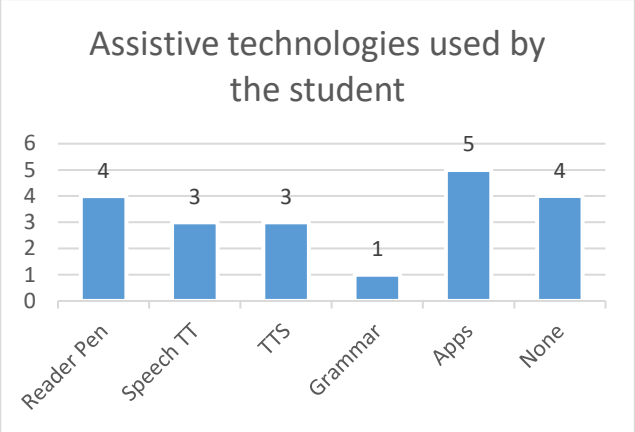
Some difficulty reading resulting in lack of confidence.
Wants to be a good student. Is three years behind classmates in word identification accuracy. Reading comprehension has also been assessed as at two years behind classmates.
English vocabulary is two years behind that of age peers.

Details of the writing difficulties of the target students are listed below.

Dyslexic tendencies create challenges in many areas of the curriculum that rely on reading and writing text, spelling, comprehension, working memory processes.
Finds writing very challenging and often refuses to write more than a few words. Can't remember all the letters and their sounds so becomes frustrated very quickly.
Unable to recognise letters, no letter to sound correspondence, small bank of site words
Significant struggle with reading and writing, copying notes
Difficulty spelling and writing makes it difficult to show what is known.
Very poor reading skills
Has difficulty with writing skills specifically spelling and more complex skills like composing sentences or larger texts. Has difficulty forming sentences and displays fatigue or inattentive behaviours when writing becomes too strenuous/difficult.
Accuracy/ sight word bank is low therefore limiting ability to independently engage in text. Low motivation.
Cannot read or write
Very low reading level makes reading instructions very difficult.
Does not want it to be evident that they are a struggling reader and will role pay reading. Will posture for prolonged reading periods with a novel. Will choose books has seen the movie/s of, like Harry Potter, and carry thick books around, looking to all intents and purposes as if they are being read. Is hesitant to seek assistance/ clarification of a written task and, whilst very good at following the actions of classmates, is often confused about the learning intent of a task.
It is their second language. Exhaustion.

Current technologies





Apart from the OrCam technology, trial students also used other assistive or inclusive technology, including four students currently using reader pens such as the C Pen. Three of the students did not use any mainstream technology and four students were not using any assistive technology.

Trial hardware

Each trial school was provided with an OrCam MyReader version 2.0 text-to-speech wearable device. The device package provided to each school contained:

(image of OrCam MyReader is used with permission from OrCam ©)

- The OrCam camera
- Non-prescription spectacles to which the OrCam can be attached
- A spare magnetic attachment for spectacles
- USB cable to charging the OrCam
- AC adaptor
- A set of Bluetooth earbuds

Collection of data

Formal data collection was completed at three pre-determined times during the trial, including pre-trial, interim and end of trial. The schools received support from the trial Project Officer through professional training in the use of eye gaze, direct student support, and the provision of resources to the school. These resources included a range of information documents relating to the operation of the OrCam and access to the OrCam Trial edStudio suite of professional materials.

Pre-trial Report

Information collected prior to the commencement of the trial included:

- School population, including count for student population, students with disability, aboriginal and Torres Strait Islander, and non-English Speaking background.
- Whether the school has a Bring-your-own device (BYOD) program
- Computer platforms the school currently employs for student use
- Details of target students for the trial. This included:
- Year level
  - ATSI background
  - Languages spoken and primary language used
  - Disability areas
  - Curriculum areas of focus for the trial
  - Difficulties encountered when engaging with the curriculum and written content
  - Mainstream technology used
  - Assistive/specialised technology used

Interim Report

The interim report occurred approximately half way through the trial. It identified the following:

- how the OrCam was introduced to the students
- the training received by school staff and students
- how the students used the OrCam to transform the print content to text
- the frequency of the use of the OrCam
- the level of engagement with the OrCam
- the learning environments and curriculum areas in which the OrCam was being used
- details around maintaining charge for the OrCam

End of Trial Report

Participating schools provided an end of trial report outlining general observations of the use of the OrCam during the trial period. This report identifies the overall use of the OrCam during the trial and also includes a minimum of one case study and practical example. It provides detailed observation of the use of the OrCam in educational settings and the capacity for the OrCam to improve learning.

The information in this report, which forms the basis for the outcomes of the OrCam trial, are from surveys received at the end of the trial. These surveys consisted of information from questions provided as multiple choice, multiple option or yes/no responses. The results of the fixed choice questions form the basis for the

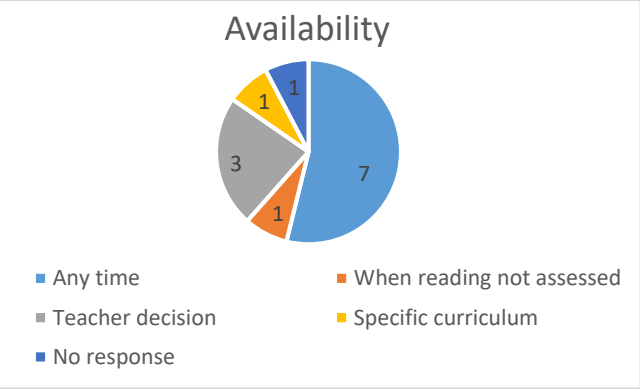
statistical information in this report. The survey also included short text anecdotal observations from schools. The anecdotal notes are listed in the tables in each section of the report and are provided as they were written in the end of trial survey.

Findings

The findings from the trial are provided in four sections, linked to the trial objectives:

1. identifying how the OrCam devices were used
2. identify learning contexts in which the OrCam technology may be used by students with reading difficulties
3. identify the considerations required for the effective use of the OrCam wearable technology for students with various literacy support needs and capabilities
4. advise how text to speech wearable technology may enhance student learning and access to the curriculum

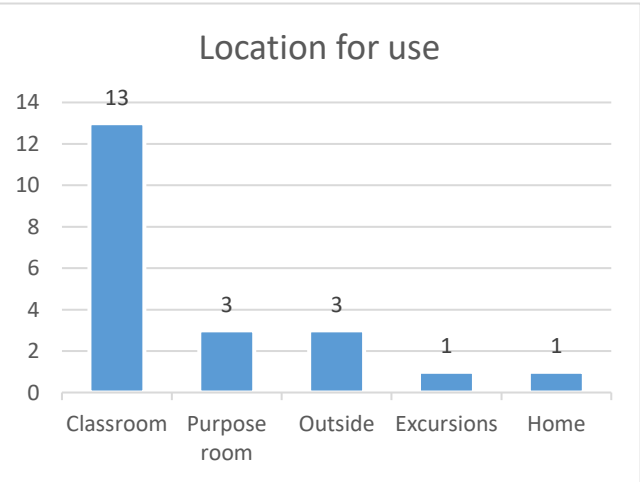
OrCam use



Schools identified when the OrCam was available to the student, choosing from the following responses:

- Any time during the day
- Whenever reading was not being assessed
- When specific curriculum areas were focus
- Teacher made the decision
- One session per day
- Other

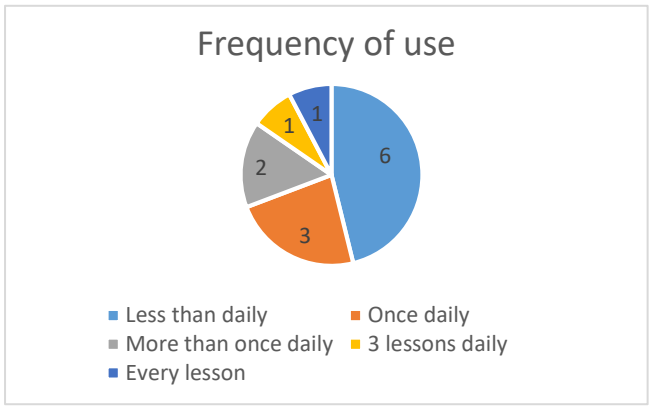
The OrCam was available at any time for the majority of the focus students. Other students had access to the OrCam at a pre-determined time or when considered the curriculum tasks would benefit from the use of the OrCam.



Response choices relating to the learning environments in which the OrCam was made available included:

- Regular classroom
- Special purpose classroom (e.g.: Home Economics.; library; learning support area)
- Outside the classroom
- Excursions
- At home
- Other

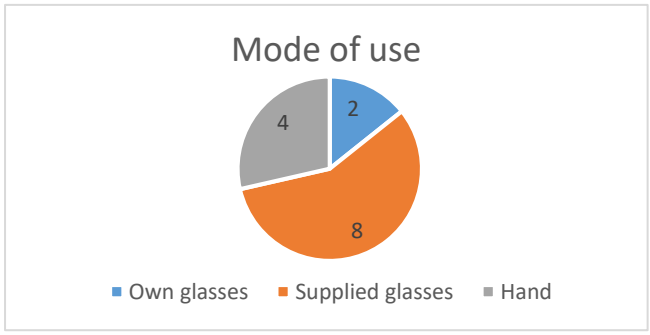
All students were given the opportunity to use the OrCam in the classroom. Most students only used the OrCam in the classroom. One student was able to use the OrCam in any environment, including at home.



The frequency students used the OrCam was identified through the following response choices:

- Every lesson
- At least three lessons per day
- More than one lesson per day
- One lesson per day
- Less than one lesson per day

Most students used the OrCam at least once a day or more.



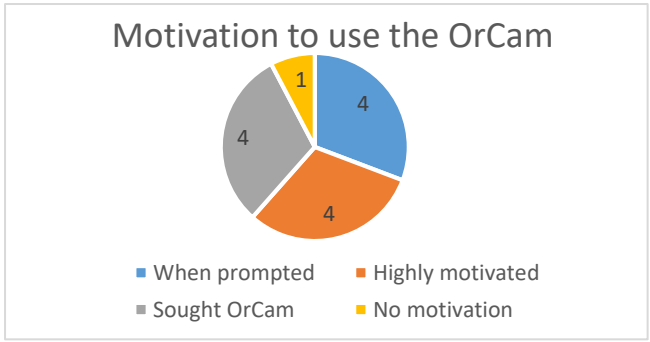
Students were given a range of options for the use of the OrCam as indicated by the following possibilities:

- Attached to the glasses supplied with the OrCam
- With the student's own glasses
- With sunglasses
- Held by hand
- Attached to another device/frame
- Other

Most students used the OrCam with the glasses provided. This appears to provide the most efficient method of use. One student used the OrCam by hand and with the glasses provided.

From the frequency, availability and location, students did not use the OrCam regularly when compared to its availability. Its use is most likely to occur in the classroom during reading activities. Most schools did not permit the OrCam to be sent home.

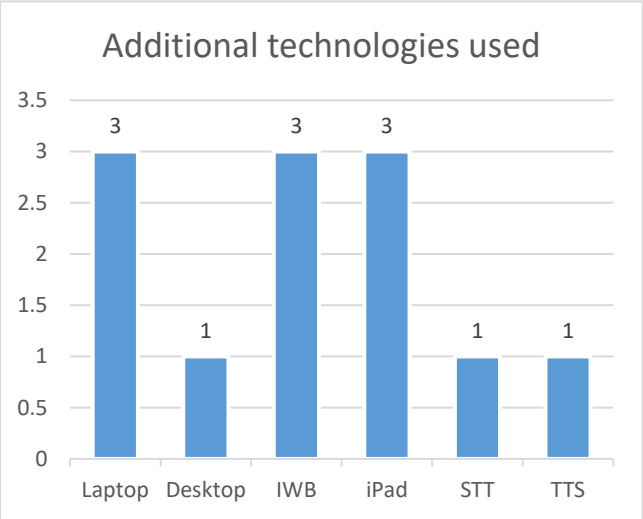
An important element of the trial was to identify the student's motivation for the use of the OrCam. If a student is reluctant to use any technology, they are unlikely to obtain the maximum benefit from the tool.



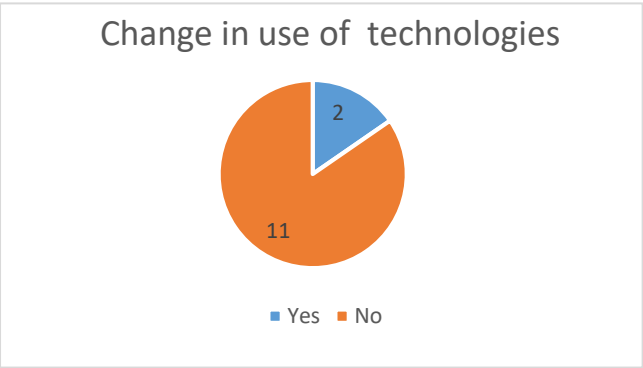
Schools identified the willingness of students to use the OrCam during reading activities. The level of motivation schools could choose from were:

- No motivation to use the OrCam
- Was reluctant to use the OrCam
- Used the OrCam when prompted
- Sought out the OrCam for use
- Was highly motivated to use the OrCam

Most students were either highly motivated to use the OrCam or sought it out for reading activities. One student was not motivated to use the device. Further investigation indicated this student was embarrassed to use a device others were not using.



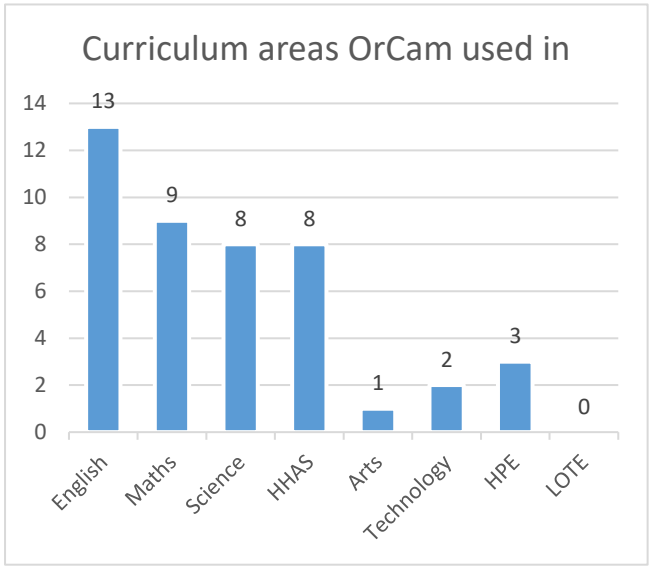
The interaction of other technologies in use by the students may impact their use of and engagement with the OrCam. Many students continued to use the laptop, desktop or iPad in activities where the OrCam was used when available. All students who were using a reading pen used the OrCam as a replacement during the trial. It was reported that fewer devices and apps were used by students when the OrCam was available. Only two specific assistive technologies were used simultaneously with the OrCam, these being other text-to-speech (TTS) tools and speech-to-text (STT).



Schools indicated whether the use of the OrCam changed the use of mainstream technologies. The majority of schools indicated the student continued to use the mainstream technologies they had been using previously. Two students changed their technologies during the trial, both indicating this was because the OrCam took the place of the current reading pen the student was using.

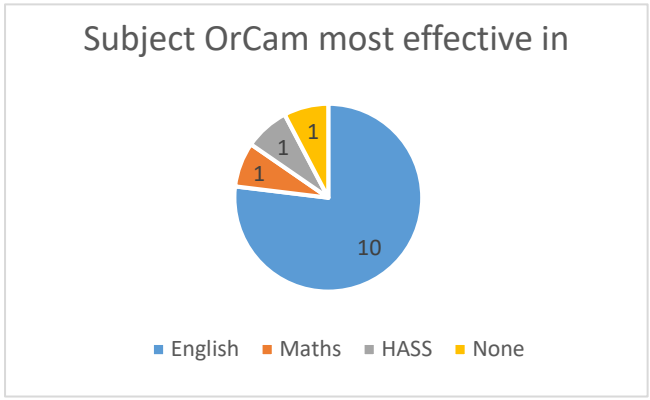
Learning contexts

A number of questions in the trial survey related to the context and learning in which the OrCam was used.



The OrCam was used across a wide range of areas of the Australian curriculum. All students used the OrCam during English activities. No student used the OrCam to support the student in Australian Curriculum: Languages. It is unclear if this is because the students were not studying Languages or if the device could not be used to support students in this area. One student used the OrCam across every subject (except Languages).

It is noteworthy that the subject the OrCam was used most after English was Mathematics. It is likely this is to support students to read written maths questions, which would be a reasonable adjustment for this subject for many students.

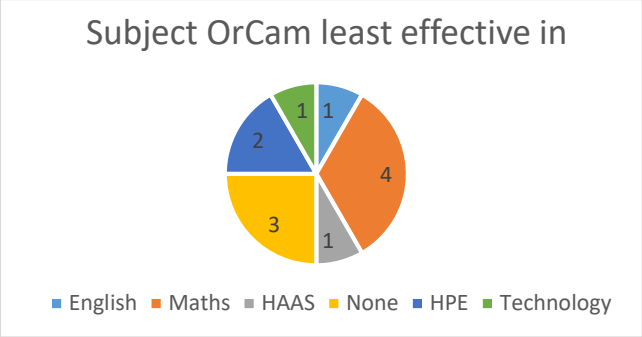


Schools were asked to identify which subject the student found the OrCam to be most effective. English was by far the subject identified as most useful, however, one response identified Mathematics while another, Humanities and Social Sciences (HASS). One response indicated that the OrCam was not effective in either English or Maths.. This student was, however, very reluctant to use the OrCam and indicated embarrassment when asked to use the device.

The reasons identified as to the effectiveness of the OrCam in the chosen subject area were:

This KLA has a high demand for reading texts and creating written texts, both in lessons and assessment.
Was able to access text more independently rather than rely on a support person or peer to read for them.
Was able to read labels on recipes and go shopping to buy food for cooking.
Amount of reading and writing required in English.
As English required student to engage with the greater level of text, the OrCam was most useful in this subject area.
It helped the most with reading.
Ability to access curriculum alongside peers.
The OrCam provided improved access to the curriculum for this student in all areas due to increased engagement and easy access to meaning
Student embarrassed at inability to read and write and consequently did not want to use this technology for the most part.
Without the OrCam the student would struggle to read even basic texts.

The written material that supports learning in this field is frequently rich in language and layers of inference. When free to engage in listening to the text, student was able to invest considerable energy into the higher order thinking skills required to complete tasks.
Appeared to benefit from the use of the OrCam in all activities requiring engagement with text.



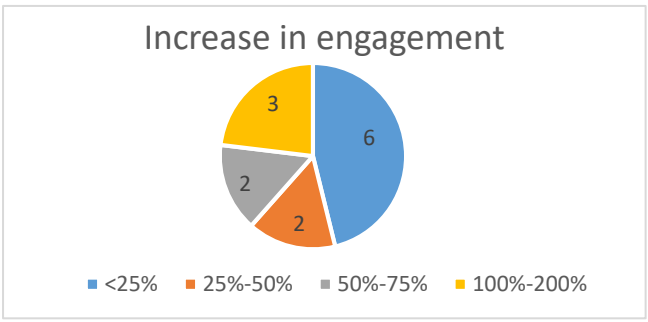
Schools identified the least effective area where the OrCam was used.
A range of subjects were selected with three participating schools indicating that no subject was the least effective. These three responses may be attributed to the student only using the OrCam in English.

The reasons identified for the least effective subject in which the OrCam was used are provided below.

Limited and inconsistent opportunity for use
This subject often has minimal text that was needed to participate.
Numbers and formulas difficult to read
As there is a lesser demand on literacy in this subject student was better able to engage with the content without the OrCam.
It wasn't good at reading the symbols correctly.
Inability to differentiate between text/symbols. OrCam struggled to attend to content presented by student.
We did not utilise the OrCam for mathematics lessons however I am sure it could be deployed in this area effectively.
Because of students reluctance to learn how to read and write.
These two questions do not have enough scope for an accurate response. The OrCam can be utilised to access all areas of the curriculum. The effectiveness of that access is not limited by the curriculum area but by the demands of the task.
Student has less text demands in this subject.

Curriculum engagement

The goal of the trial was to identify whether the OrCam technology enhances engagement with the curriculum as evidenced through increased independence in task engagement and completion across a range of learning environments.
Schools responded to a series of questions relating to the impact of OrCam use on curriculum engagement, including observed changes in student behaviour towards the curriculum when using the OrCam.



The response options available were:

- <25%
- 25%-50%
- 50%-75%
- 75%-100%
- 100%-200%
- More than 200%

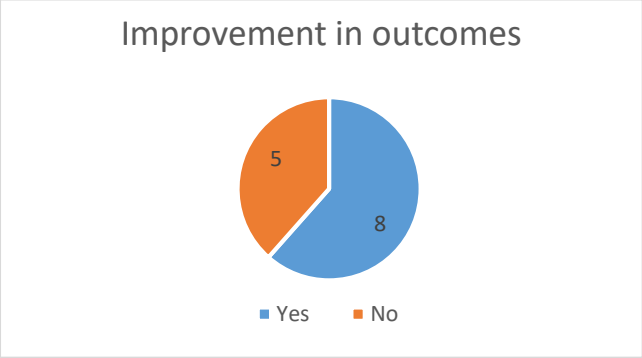
Results indicate all students increased their engagement with written content as a result of using the OrCam. Most students demonstrated an increase in engaging with written content by at least 25%. Three students were identified as at least doubling their engagement with written content.

Schools provided observations in relation to the increase in engaging with written content from using the OrCam. The following observations were provided by schools.

Would use the OrCam for some tasks initially but preferred to resort back to iPad, to work more independently on written tasks.
Was much more enthusiastic and willing to interact with all forms of written content when using the OrCam. Parents reported the student would often mention that if they had it at home they would be able to complete some tasks or read text that was around them.
Enjoyed learning about the recipes.
Was able to engage with all written content. Confidence was extremely high. Willing to have a go.
Was less likely to become frustrated when engaging with written content. Could engage for up to 20 minutes or more where would previously become frustrated within a minute or two.
The device was difficult to use so the student often gave up.
Confidence in ability to engage with/alongside peers. Being an inclusive member of the lesson and the ability to participate in the learning without feeling too overwhelmed. Ability to follow along. Feeling a sense of accomplishment and confidence.
The student became: *eager to read *greatly more active in classroom conversations about shared reading *able to demonstrate greater comprehension of text - even in contrast to whole class/ group sharing of text - this appeared to be due to their ability to scroll and check text.
ACTIVE engagement with text became a successful experience for them. No longer role played reading, became a reader.
Reluctance to engage in reading activities showed a distinct change to the positive. Appeared to really enjoy being able to re-listen to text a number of times.

Schools also noted observations in relation to general curriculum engagement (rather than specifically English or activities involving specific written content) when using the OrCam. The responses are provided below.

Would use the OrCam for some tasks initially but preferred to resort back to iPad, to work more independently on written tasks.
Would often shut down when asked to engage or attempt to read any text, also became very frustrated with someone having to read text to them all the time. When using the OrCam would initiate reading text around them, books, posters etc. Was happy to engage with reading tasks.
Got frustrated when it would speak too fast - or it wouldn't read the correct information
Willing to engage with all curriculum areas.
The student would use it to read questions on worksheets
Confidence in ability to engage with/alongside peers. Being an inclusive member of the lesson and the ability to participate in the learning without feeling too overwhelmed. Ability to follow along. Feeling a sense of accomplishment and confidence. Strong sense of confidence and independence.
The student: *was engaged from the commencement of lessons (in contrast to their usual slow start) *remained engaged for the duration of the lesson rather than 'tiring' *was able to be a self-starter and revelled in their new found ability to be an independent worker *equipped with their knowledge of the content they were able to engage actively in peer to peer learning conversations.
Only a few times did the student engage with the OrCam only because of reluctance and embarrassment
Increase in confidence when reading without OrCam
Became far more confident and on point in collaborative discussions. Ability to engage in and complete tasks improved greatly.
Increased independence and task readiness. Increased engagement in class conversations. Increased risk taking in attempting tasks.



Schools identified any improvement in outcomes by students involved in the trial, specifically in subjects where the student used the OrCam. Over 60% of schools indicated there was an improvement in outcomes during the trial. This is significant, as the trial was over a relatively short timeline.

Schools that observed an improvement in outcomes provided additional details of the observed improvement as outlined in the following comments.

Was able to engage independently with texts at a higher level and respond orally to demonstrate understanding of the text.

Engaged in reading books. Able to access the curriculum to read recipes and complete math problems.
Confidence and willingness to 'have a go'. Some increase in results. More time required.
Increase in student's attention to task/learning and ability/confidence to engage in content with classmates.
The student has improved a grade level in English and this is in part due to the teachers' increased knowledge of the students' capabilities 'revealed' through use of the OrCam.
The ability to increase engagement with the curriculum and be more settled in the classroom was noticeable.
The improvement was not immediate i.e.: not visible in the term of the trial - however has improved a grade level in English in the term following the trial.
The following term this student's English marks have shown a whole grade level improvement - D to C.

Schools may have observed a change in the behaviour of the students using the OrCam towards learning. The following observations were documented by schools in relation to changes in student behaviour in engaging with written content when using the OrCam.

Was much happier to engage with activities that involved reading, meltdowns decreased due to frustration.
More focused. Less distracted
Less likely to become frustrated and engage in disruptive behaviour.
Sense of enthusiasm (Attentiveness)
All positives. *Eager to select a book *Enthusiastic engagement with a range of texts *Exponential growth of task endurance (ability to sit and focus on an academic challenge) *Shifted from requiring intensive person to person support in all stages of a task to often working independently.
Student wasn't inclined to use the device because did not want to draw attention and make the obvious even more obvious.
Used the OrCam to be able to do what they could only role play before. Displayed joy in being able to decipher the written word.
Became far more confident and increasingly independent when engaging in reading tasks

Considerations

Schools were asked to identify the most important considerations for using the OrCam in a school environment, along with observations that would support the use of the OrCam in schools.
The following responses were provided:

Providing assistive technology for a student with learning difficulties due to dyslexic tendencies.
Storage and security of the device when not in use. Charging the device. The decision about taking it home for further use. How and when would it be used? Training of support staff so they felt confident assisting the student when things went wrong.
Needs to be charged. Needs to accessible.
Constant availability at all times. Teacher induction.

Students ability to engage with the content once reading assistance was provided
The student's knowledge of how to use the OrCam. The parent's interest and knowledge of the benefits/ longevity of the OrCam and the potential that this devices supported the participant will one day be removed and replaced with.....
Use in tasks where reading for meaning was required.

In relation to the challenges when using the OrCam, the following observations were made:

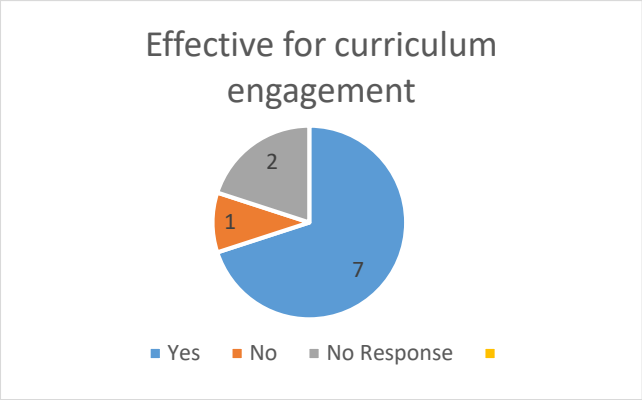
Stated there was 'too much to remember' and it was 'confusing' to follow the steps for efficient use of the OrCam. Was self-conscious about using a 'different' device. Preferred to not wear the glasses provided and use the device by hand, when prompted. The wireless earbuds did not fit ears comfortably and would fall out.
Losing its charge quickly made student frustrated. Learning how to read sections of a text instead of the whole thing every time and would lose place as they often couldn't follow along.
Difficulty with speed. Stopping and starting the reading.
Difficulty reading some fonts in picture books.
Using it properly. Its batteries were often flat and it often said the area was too dark to read the text. Also it wasn't reading the text specifically enough.
Update required. Charging- Student forgot to charge. Disruption to other classmates during quiet reading time (hence need for earbuds)
Embarrassment.
Difficulties with unusual fonts in picture books or multiple text blocks on page.
Some difficulty holding head still while OrCam was capturing image.
None that were apparent - use became very second nature.
Was very engaged in playing with the speed controls, scrolling and re-listening.

The following were observations relating to the OrCam technology as a tool to transform learning for students with literacy support needs.

Device small in size; more unobtrusive if student already wears glasses; effective for students with vision difficulties; perhaps more opportunity for application in higher grades (i.e.:. high school) when more individual work is required.
The increased engagement and independence of the student with written content.
Handy tool but now that there are apps for phones and iPads that read text, it would seem the OrCam is cumbersome.
Greater access. Cost is prohibitive
A sense of excitement to be working with such an advanced piece of technology that could transform/support a learner. Confidence in the student's ability to engage with any content delivered as long as it was readable by the OrCam.
Students who are able to comprehend text at a higher level than their accuracy in deciphering text revelled in their new found freedom to independently access information at the level and beyond. No delay was experienced in this positive outcome - there was an immediacy in student's experience of success when engaging with text.

In relation to the trial, schools were asked to identify if there were any significant changes or alterations during the trial that had an impact on the success or initial expectations of the trial. There were four schools that made changes or alterations. The following were the changes.

Teacher absence/change of teachers and inconsistency of use of OrCam.
Towards the end of the trial period the device kept losing charge quickly, this was frustrating for the student and at times the student didn't want to use it.
Bluetooth earbuds for interruptions, Update required, Charging.
Students required far less support in the use of the OrCam than expected.
Plug-in earphones or more secure (over the head) wireless headphones. Simple, pictorial and brief, student-friendly instruction sheet for easy, ready reference when in use. Must be used frequently and consistently for maximum benefit.
Investigating why the device loses charge so quickly. A quick guide to its use and how to solve minor problems would be helpful. Increased training for the staff and student accessing the device would be beneficial.
Less visible
price and availability
Bluetooth earbuds Learning lounge with parents, students, teachers (how to) check in from providers to ensure it is working properly/effectively
For what it offers it is a solid package.



The vast majority of schools indicated the OrCam was an effective tool to support students to engage with the curriculum. The following reasons were provided to support the use of the OrCam as an effective tool to enhance curriculum engagement.

No	Student preferred to use iPad for reading and writing activities as was already familiar and competent with this form of assistive technology. Experiences difficulties with working memory and stated that they felt there were too many things to remember when using the OrCam. Learning tasks in the trial classroom were already heavily scaffolded and supported - use of OrCam not conducive at times.
Yes	The most significant change for our student was increased engagement and willingness to participate with written content. Also started to make connections beyond the school environment with how it could enable them to access written content.
Yes	Yes at the time, but now we can use apps on phone/iPad.
Yes	The ability to increase engagement with the curriculum and be more settled in the classroom was noticeable.

Yes	Yes, however it did have its limitations within the school classroom environment and its ability to work 100% of time. At times it would not follow student direction and at times it would be a distraction to others within the classroom.
Yes	Students were able to focus on the meaning within the text rather than struggle through deciphering the written word. The technology is unobtrusive, easy to operate and easy to store. It promotes independent learning.

Schools provided the following final comments describing any other observations made during the trial.

Vital for all staff that work with identified students for various selected KLAs have thorough training in the use of OrCam. Examples/modelled lessons/in-class demonstrations of how to effectively use OrCam would be beneficial.
Excellent tool to be used with the school, however, this device is only suitable for a student who wants to engage with it. Student/teacher/school need to have an interest in the device or else it is more of a distraction. If the student and family could engage with the OrCam outside the school environment it would probably create a stronger sense of support for the individual user throughout the trial as well as providing the family with a clearer understanding of the capability of the device. Not just hearing about the use from student/ school.
Thank you for the opportunity to explore the possibilities for improving student access to the curriculum through the use of the OrCam. It was definitely a tool that we would like to have available in our classrooms. The only problem with the trial is we needed MORE OrCams.

Conclusion

The goal of this trial was to identify whether the OrCam technology enhances engagement with the curriculum as evidenced through increased independence in task engagement and completion across a range of learning environments. The trial has confirmed the OrCam as a device to support students to engage independently in tasks involving engagement with written content and to support students to successfully complete reading tasks across learning environments and areas of the Australian curriculum.

This trial identifies the OrCam as a device that can be used in schools to enhance the student engagement with written content. 88% of schools that responded indicated they considered the OrCam an effective tool for students to engage with the curriculum. All schools indicated every target student increased engagement with written content when using the OrCam, with more than 50% indicating an increase in engagement of more than 25%. Almost a quarter of students were reported as increasing engagement with written content of more than 100%.

While improved outcomes cannot be correlated directly to the use of the OrCam, anecdotal and indirect evidence from the trial support the use of the OrCam to improve student outcomes. Over 60% of schools indicated there was improvement in outcomes during the trial. Two schools also indicated that while there was no significant improvement during the trial, there was a noted increase in reading outcomes immediately following the trial. All schools indicated that every target student from the trial was more engaged with written content as a result of using the OrCam. While one student was reluctant to use the device, there was no evidence provided to substantiate the OrCam reduced learning outcomes for students with challenges in reading.

The OrCam is seen as a device that can promote a change in behaviour for students when engaging with written content. Schools noted students were less distracted, less frustrated and less likely to engage in disruptive behaviour when using the OrCam. Students were observed as being more eager to select books and to engage with written text more often. Student reading task “endurance” was noted as having a significant improvement and reduced student tendency to “fake” reading. Student confidence with reading tasks was observed as improving and students were noted as being more independent with reading tasks when using the OrCam.

The OrCam can be used across multiple learning environments and areas of the Australian curriculum. It is mostly used during English activities but could be used in other areas of the Australian curriculum. All students used the OrCam during activities relating to the English curriculum and 69% of students used the OrCam in Mathematics. All students used the OrCam in at least one additional subject to English. 77% found the OrCam most effective in English, due to the written content demands and language rich tasks that can be supported by the device. Most students used the OrCam at least once daily. This would correlate to it being used during English classes and some other areas of the curriculum when needed. It is noteworthy that 46% of students used the OrCam less than once a day. This may indicate the OrCam was being used only where the tasks required more extensive amounts of reading, rather than being used any time the student required access to text.

The OrCam was predominantly made available to the students at any time they chose and mostly used in the classroom. More than half the students had the OrCam available any time they chose to use the device and 23% of students were provided the OrCam when the teacher identified it as an appropriate time for use. All students used the OrCam in the regular classroom and one student had access to the OrCam in all learning environments.

Results from the trial indicated that most students were comfortable using the OrCam either with the glasses provided or attached to their own glasses. Only 30% of students chose to use the OrCam by hand, with one student also using the glasses, depending on what needed to be read by the device. This indicates the glasses were not a barrier to student use, with only 23% of students indicating they did not want to use the glasses.

This trial highlights that students are eager and motivated to use the OrCam. Only one student indicated any significant reluctance to using the OrCam, citing embarrassment as the main reason for this. This student was of secondary school age which may be a factor in the reluctance to use the device. Over 62% of students were either highly motivated to use the OrCam or sought out the OrCam to use during reading tasks.

The OrCam complements other assistive and mainstream technologies. While it did replace the use of some other assistive technologies during the trial, most students (85%) continued to use the mainstream technologies available. This indicates (1) the mainstream technologies are not being used as the means to provide reading support and (2) the OrCam does not replace mainstream devices in engaging with and responding to the curriculum. It has a focal purpose of supporting students to engage with written content.

It is vital the OrCam remains functional within the classroom environment. 30% of schools indicated student or teacher frustration with the OrCam from:

- The device not being charged or losing its charge quickly
- The light within the classroom not being suitable for the OrCam to recognise text
- The device not reading the required section of text
- The supplied earbuds not connecting to the device
- The complexity in the operation of the device for younger students
- Accuracy in recognising text
- Difficulty in reading certain fonts
- Distraction for other students

Schools using the OrCam must develop a system of use of for it to be an effective classroom learning tool. A program of maintenance and preparation of the OrCam prior to the commencement of each day/lesson needs to be established, including routines for charging the device, similar to that for other mobile devices used. Professional training in the use of the OrCam would need to be undertaken by staff and students. For younger students involved in the trial, it was reported there were challenges in knowing how to use the device. As with any assistive technology, timing and careful implementation are required when used by students in early to mid-primary school sector, or for any student who may find it challenging to manage the device. Training would need to include how to use the device for reading, as well as the limitations of the device in recognising text.

From anecdotal observations during the trial and from discussions with schools following the trial, the cost of the device may make it prohibitive for schools to purchase as a readily available literacy support option. One school indicated they would definitely seek to include at least one OrCam in their school but simply could not justify the cost. Other schools indicated it would be difficult to justify the investment in an OrCam over other far less expensive or free reading support options.

Appendix 1: OrCam Trial Project School Details

School	Region	Sector	Approx. No. students in trial	Total school enrolment*	Students with disability*	Indigenous*	EALD*
Aurukun State School	Far North Queensland	Prep - 10	2	220	55	220	215
Blackwater North State School	Central Queensland	Primary	3	422			
Brighton State School	Metropolitan	Primary	1	440	17	18	1
Middle Ridge State School	Darling Downs	Primary	1	770	38	30	163
North Lakes State College	North Coast	Prep - 12	1	2912	640	145	145
Park Avenue State School	Central Queensland	Primary	3	130	19	39	7
Pormpuraaw State School	Far North Queensland	Primary	2				
Sarina State High School	Central Queensland	Secondary	3	751	40	120	19
Varsity College	South East	Prep – 12	2	3298	129	71	482

*Student numbers are approximate based on most recent day 8 numbers.

Appendix 2: End of trial survey

OrCam Trial Project End of Trial Report

Introduction

Welcome to the Statewide Services, Disability and Inclusion Branch OrCam Trial, end of trial survey. This survey is to obtain information about how the use of the OrCam in your school has supported student learning, how it has enabled students to engage with the curriculum and its contribution towards improvement of student outcomes.

There are 5 sections to the survey:

School Details: This focuses on the use of the device within the school...

There are three sections that collect details of how specific students used the OrCam as part of their support. Each school can provide details for up to three individual students.

The final section is the overall observation of the OrCam in contributing towards the improvement of student outcomes.

Please complete this survey with as much details as possible. Information from your survey will be used to form the results outlined in the OrCam trial report. The results of the surveys undertaken and the final trial report will be published by the end of Term 1, 2020.

If you have any questions relating to the survey, please contact Jeff Souter at jeff.souter@qed.qld.gov.au.

School Details

1. School:

_____

2. School contact:

_____

3. Contact email:

_____

Student 1 Details

This section is to provide details of the first student who was the focus of the use of the OrCam in the trial.

4. Name (please provide only the student's first name or initials)

---

5. Year level (The student must be at least in year 4 or above)
   - ◯ Year 4

- ◯ Year 5
- ◯ Year 6
- ◯ Year 7
- ◯ Year 8
- ◯ Year 9
- ◯ Year 10
- ◯ Year 11
- ◯ Year 12

6. The student is from an indigenous Australian background.

- ◯ Yes
- ◯ No

7. English is the primary language of communication for the student.

- ◯ Yes
- ◯ No

8. The student has been identified as being/having the following (please select any that apply):

- ☐ Autism Spectrum Disorder
- ☐ Blind or Low Vision
- ☐ Deaf or Hard of Hearing
- ☐ Intellectual Disability
- ☐ Learning Disability/Difficulty
- ☐ Physical Impairment
- ☐ Other (please specify): :Please specify_____

9. Briefly describe the challenges the student currently faces when engaging with their curriculum.

_____
_____
_____
_____

10. Briefly describe the challenges the student currently faces when engaging with written content.

_____
_____
_____
_____

11. What mainstream technology does the student use as part of their learning (please list all the student is currently using)?

_____
_____
_____
_____

12. What assistive/specialised technology does the student currently use to support their learning?

_____
_____
_____
_____

Student OrCam use

Please provide details of the use of the OrCam by this student.

13. What was the availability of the OrCam to the student during their part of the trial?

- ◯ At any time during the day
- ◯ Whenever their reading capability was not being assessed
- ◯ When specific curriculum areas were the focus
- ◯ The teacher made the decision on when the OrCam was available
- ◯ One session per day
- ◯ Other (please specify): :Please specify_____

14. In which learning environment/s did this student use the OrCam during the trial? (select all that apply)

- ☐ Classroom
- ☐ Special classroom (e.g.: technology room; kitchen)
- ☐ Outside classroom (e.g.: oval)
- ☐ Excursions
- ☐ At home
- ☐ Other (please specify): :Please specify_____

15. On average, how regularly did the student use the OrCam? (This is how often the student used the OrCam regardless of its availability to the student)

- ◯ Every lesson
- ◯ At least 3 lessons per day
- ◯ More than one lesson per day
- ◯ One lesson per day
- ◯ Less than one lesson per day

16. How did this student use the OrCam during the trial? (select all that apply)

- ◯ Attached to the glasses supplied with the OrCam
- ◯ With their own glasses
- ◯ With sunglasses
- ◯ Held by hand
- ◯ Attached to another device/frame
- ◯ Other (please specify): :Please specify_____

17. What would you consider this student's level of motivation to use the OrCam was during the trial?

- ◯ No motivation to use the OrCam

- ◯ Was reluctant to use the OrCam
- ◯ Used the OrCam when prompted
- ◯ Sought out the OrCam for use
- ◯ Was highly motivated to use the OrCam

18. With what other technologies did the student use in lessons where the OrCam was used?

_____
_____
_____
_____

19. What challenges did the student face when using the OrCam?

_____
_____
_____
_____

20. Did the student's use of other technologies change as a result of having the OrCam available?

- ◯ Yes (provide details of the change) :Please specify_____
- ◯ No

21. In which area/s of the curriculum did the student use the OrCam? (select all areas where the student used the OrCam)

- ☐ English
- ☐ Mathematics
- ☐ Science
- ☐ Humanities And Social Sciences
- ☐ The Arts
- ☐ Technology
- ☐ HPE
- ☐ LOTE
- ☐ Other (please specify): :Please specify_____

22. From the areas of the curriculum in which you identified the student used the OrCam, which would you consider was the most effective for the use of the OrCam to support the student's engagement with written content? (choose one)

- ◯ English
- ◯ Mathematics
- ◯ Science
- ◯ Humanities and Social Sciences
- ◯ The Arts
- ◯ Technologies
- ◯ Health and Physical Education

23. What do you consider is the reason for this?

_____
_____
_____
_____

24. From the areas of the curriculum in which you identified the student used the OrCam, which would you consider was the LEAST effective for the use of the OrCam to support the student's engagement with written content?

- ◯ English
- ◯ Mathematics
- ◯ Science
- ◯ Humanities and Social Sciences
- ◯ The Arts
- ◯ Technologies
- ◯ Health and Physical Education

25. What do you consider is the reason for this?

_____
_____
_____
_____

26. What increase in engaging with written content was observed when the student used the OrCam? (e.g.: a 50% increase means the student is engaging for 15 minutes, where previously they would only engage for 10 minutes)

- ◯ No observable increase
- ◯ Less than 25%
- ◯ 25%-50%
- ◯ 50%-75%
- ◯ 75%-100%
- ◯ 100%-200%
- ◯ More than 200%
- ◯ There is no limit

27. Provide details of the observations made with the students increase in engaging with written content from the previous question.

_____
_____
_____
_____

28. Provide details of the observations made with the students increase in engaging with the curriculum when using the OrCam.

_____
_____
_____

_____

29. During the trial period, was there any improvement in student outcomes by the student in subjects where the student used the OrCam

- ◯ Yes
- ◯ No noticeable improvement

30. If there was improvement in student outcomes, please provide details of the observed improvement.

_____
_____
_____
_____

31. Provide details of any change in student behaviour when engaging with written content when using the OrCam.

_____
_____
_____
_____

Student 2 Details

This section is to provide details of the second student who was the focus of the use of the OrCam in the trial.

32. Name (please provide only the student's first name or initials)

_____

33. Year level (The student must be at least in year 4 or above)

- ◯ Year 4
- ◯ Year 5
- ◯ Year 6
- ◯ Year 7
- ◯ Year 8
- ◯ Year 9
- ◯ Year 10
- ◯ Year 11
- ◯ Year 12

34. The student is from an indigenous Australian background.

- ◯ Yes
- ◯ No

35. English is the primary language of communication for the student.

- ◯ Yes
- ◯ No

36. The student has been identified as being/having the following (please select any that apply):

- ☐ Autism Spectrum Disorder
- ☐ Blind or Low Vision
- ☐ Deaf or Hard of Hearing
- ☐ Intellectual Disability
- ☐ Learning Disability/Difficulty
- ☐ Physical Impairment
- ☐ Other (please specify): :Please specify_____

37. Briefly describe the challenges the student currently faces when engaging with their curriculum.

_____
_____
_____
_____

38. Briefly describe the challenges the student currently faces when engaging with written content.

_____
_____
_____
_____

39. What mainstream technology does the student use as part of their learning (please list all the student is currently using)?

_____
_____
_____
_____

40. What assistive/specialised technology does the student currently use to support their learning?

_____
_____
_____
_____

Student OrCam use

Please provide details of the use of the OrCam by this student.

41. What was the availability of the OrCam to the student during their part of the trial?

- ◯ At any time during the day
- ◯ Whenever their reading capability was not being assessed
- ◯ When specific curriculum areas were the focus
- ◯ The teacher made the decision on when the OrCam was available
- ◯ One session per day
- ◯ Other (please specify): :Please specify_____

42. In which learning environment/s did this student use the OrCam during the trial? (select all that apply)

- ☐ Classroom
- ☐ Special classroom (e.g.: technology room; kitchen)
- ☐ Outside classroom (e.g.: oval)
- ☐ Excursions
- ☐ At home
- ☐ Other (please specify): :Please specify_____

43. On average, how regularly did the student use the OrCam? (This is how often the student used the OrCam regardless of its availability to the student)

- ◯ Every lesson
- ◯ At least 3 lessons per day
- ◯ More than one lesson per day
- ◯ One lesson per day
- ◯ Less than one lesson per day

44. How did this student use the OrCam during the trial? (select all that apply)

- ◯ Attached to the glasses supplied with the OrCam
- ◯ With their own glasses
- ◯ With sunglasses
- ◯ Held by hand
- ◯ Attached to another device/frame
- ◯ Other (please specify): :Please specify_____

45. What would you consider this student's level of motivation to use the OrCam was during the trial?

- ◯ No motivation to use the OrCam
- ◯ Was reluctant to use the OrCam
- ◯ Used the OrCam when prompted
- ◯ Sought out the OrCam for use
- ◯ Was highly motivated to use the OrCam

46. With what other technologies did the student use in lessons where the OrCam was used?

_____
_____
_____
_____

55. What challenges did the student face when using the OrCam?

_____
_____
_____
_____

47. Did the student's use of other technologies change as a result of having the OrCam available?

- ◯ Yes (provide details of the change) :Please specify_____
- ◯ No

48. In which area/s of the curriculum did the student use the OrCam? (select all areas where the student used the OrCam)

- ☐ English
- ☐ Mathematics
- ☐ Science
- ☐ Humanities And Social Sciences
- ☐ The Arts
- ☐ Technology
- ☐ HPE
- ☐ LOTE
- ☐ Other (please specify): :Please specify_____

49. From the areas of the curriculum in which you identified the student used the OrCam, which would you consider was the most effective for the use of the OrCam to support the student's engagement with written content? (choose one)

- ◯ English
- ◯ Mathematics
- ◯ Science
- ◯ Humanities and Social Sciences
- ◯ The Arts
- ◯ Technologies
- ◯ Health and Physical Education

50. What do you consider is the reason for this?

_____
_____
_____
_____

51. From the areas of the curriculum in which you identified the student used the OrCam, which would you consider was the LEAST effective for the use of the OrCam to support the student's engagement with written content?

- ◯ English
- ◯ Mathematics
- ◯ Science
- ◯ Humanities and Social Sciences
- ◯ The Arts
- ◯ Technologies
- ◯ Health and Physical Education

52. What do you consider is the reason for this?

_____
_____
_____
_____

53. What increase in engaging with written content was observed when the student used the OrCam? (e.g.: a 50% increase means the student is engaging for 15 minutes, where previously they would only engage for 10 minutes)

- ◯ No observable increase
- ◯ Less than 25%
- ◯ 25%-50%
- ◯ 50%-75%
- ◯ 75%-100%
- ◯ 100%-200%
- ◯ More than 200%
- ◯ There is no limit

54. Provide details of the observations made with the students increase in engaging with written content from the previous question.

_____
_____
_____
_____

55. Provide details of the observations made with the students increase in engaging with the curriculum when using the OrCam.

_____
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_____
_____

56. During the trial period, was there any improvement in student outcomes by the student in subjects where the student used the OrCam

- ◯ Yes
- ◯ No noticeable improvement

57. If there was improvement in student outcomes, please provide details of the observed improvement.

_____
_____
_____
_____

58. Provide details of any change in student behaviour when engaging with written content when using the OrCam.

_____
_____

_____

_____

Student 3 Details

This section is to provide details of the third student who was the focus of the use of the OrCam in the trial.

69. Name (please provide only the student's first name or initials)

_____

60. Year level (The student must be at least in year 4 or above)

- ◯ Year 4
- ◯ Year 5
- ◯ Year 6
- ◯ Year 7
- ◯ Year 8
- ◯ Year 9
- ◯ Year 10
- ◯ Year 11
- ◯ Year 12

61. The student is from an indigenous Australian background.

- ◯ Yes
- ◯ No

62. English is the primary language of communication for the student.

- ◯ Yes
- ◯ No

63. The student has been identified as being/having the following (please select any that apply):

- ☐ Autism Spectrum Disorder
- ☐ Blind or Low Vision
- ☐ Deaf or Hard of Hearing
- ☐ Intellectual Disability
- ☐ Learning Disability/Difficulty
- ☐ Physical Impairment
- ☐ Other (please specify): :Please specify_____

64. Briefly describe the challenges the student currently faces when engaging with their curriculum.

_____

_____

_____

_____

65. Briefly describe the challenges the student currently faces when engaging with written content.

_____
_____
_____
_____

66. What mainstream technology does the student use as part of their learning (please list all the student is currently using)?

_____
_____
_____
_____

67. What assistive/specialised technology does the student currently use to support their learning?

_____
_____
_____
_____

Student OrCam use

Please provide details of the use of the OrCam by this student.

68. What was the availability of the OrCam to the student during their part of the trial?

- ◯ At any time during the day
- ◯ Whenever their reading capability was not being assessed
- ◯ When specific curriculum areas were the focus
- ◯ The teacher made the decision on when the OrCam was available
- ◯ One session per day
- ◯ Other (please specify): :Please specify_____

69. In which learning environment/s did this student use the OrCam during the trial? (select all that apply)

- ☐ Classroom
- ☐ Special classroom (e.g.: technology room; kitchen)
- ☐ Outside classroom (e.g.: oval)
- ☐ Excursions
- ☐ At home
- ☐ Other (please specify): :Please specify_____

70. On average, how regularly did the student use the OrCam? (This is how often the student used the OrCam regardless of its availability to the student)

- ◯ Every lesson
- ◯ At least 3 lessons per day
- ◯ More than one lesson per day

- ◯ One lesson per day
- ◯ Less than one lesson per day

71. How did this student use the OrCam during the trial? (select all that apply)

- ◯ Attached to the glasses supplied with the OrCam
- ◯ With their own glasses
- ◯ With sunglasses
- ◯ Held by hand
- ◯ Attached to another device/frame
- ◯ Other (please specify): :Please specify_____

72. What would you consider this student's level of motivation to use the OrCam was during the trial?

- ◯ No motivation to use the OrCam
- ◯ Was reluctant to use the OrCam
- ◯ Used the OrCam when prompted
- ◯ Sought out the OrCam for use
- ◯ Was highly motivated to use the OrCam

73. With what other technologies did the student use in lessons where the OrCam was used?

_____
_____
_____
_____

74. What challenges did the student face when using the OrCam?

_____
_____
_____
_____

75. Did the student's use of other technologies change as a result of having the OrCam available?

- ◯ Yes (provide details of the change) :Please specify_____
- ◯ No

76. In which area/s of the curriculum did the student use the OrCam? (select all areas where the student used the OrCam)

- ☐ English
- ☐ Mathematics
- ☐ Science
- ☐ Humanities And Social Sciences
- ☐ The Arts
- ☐ Technology
- ☐ HPE

☐ LOTE
☐ Other (please specify): :Please specify_____

77. From the areas of the curriculum in which you identified the student used the OrCam, which would you consider was the most effective for the use of the OrCam to support the student's engagement with written content? (choose one)

◯ English
◯ Mathematics
◯ Science
◯ Humanities and Social Sciences
◯ The Arts
◯ Technologies
◯ Health and Physical Education

78. What do you consider is the reason for this?

_____
_____
_____
_____

79. From the areas of the curriculum in which you identified the student used the OrCam, which would you consider was the LEAST effective for the use of the OrCam to support the student's engagement with written content?

◯ English
◯ Mathematics
◯ Science
◯ Humanities and Social Sciences
◯ The Arts
◯ Technologies
◯ Health and Physical Education

80. What do you consider is the reason for this?

_____
_____
_____
_____

81. What increase in engaging with written content was observed when the student used the OrCam? (e.g.: a 50% increase means the student is engaging for 15 minutes, where previously they would only engage for 10 minutes)

◯ No observable increase
◯ Less than 25%
◯ 25%-50%
◯ 50%-75%
◯ 75%-100%

- ◯ 100%-200%
- ◯ More than 200%
- ◯ There is no limit

82. Provide details of the observations made with the students increase in engaging with written content from the previous question.

_____
_____
_____
_____

83. Provide details of the observations made with the students increase in engaging with the curriculum when using the OrCam.

_____
_____
_____
_____

84. During the trial period, was there any improvement in student outcomes by the student in subjects where the student used the OrCam

- ◯ Yes
- ◯ No noticeable improvement

85. If there was improvement in student outcomes, please provide details of the observed improvement.

_____
_____
_____
_____

86. Provide details of any change in student behaviour when engaging with written content when using the OrCam.

_____
_____
_____
_____

Final Observations

87. What did your school identify as the most important considerations for the use of the OrCam in an educational setting?

_____
_____
_____
_____

88. What observations were made that would support the OrCam technology as a tool to transform learning for students with literacy support needs?

_____
_____
_____
_____

89. Were there any significant changes or alterations during the trial that had an impact on the success or initial expectations of the trial?

- ◯ Yes, please specify: _____
- ◯ No

90. Overall, was the use of the OrCam during the trial considered an effective technology for students to engage with their curriculum?

- ◯ Yes
- ◯ No

91. Please explain the reasons for your response to the previous question:

_____
_____
_____
_____

92. What alterations to the technology or its use would enhance future success for students requiring support to access written content?

_____
_____
_____
_____

93. Please provide any final comments about the use of the OrCam in schools.

_____
_____
_____
_____

Survey Complete

Thank you for completing this survey.
If you require further information or if you have any questions regarding this survey or the OrCam trial project, please contact Jeff Souter at jeff.souter@qed.qld.gov.au.