RIVERGUMS PS 1:1 IPAD TRIAL



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CANVA STORIES





DEPARTMENT OF EDUCATION



 Ur Deacher

 Dur Deacher

Vision: Learning without limits

Strategic directions for public schools 2020-2024

Our aspiration is for every student to:

Unlock and fulfil their learning potential

Be equipped with contemporary and emerging work capabilities

Develop the personal and social attributes that form the basis for future wellbeing

Achieve year on year growth in their learning throughout their schooling

Be well prepared to take the next step beyond school into further education, training or work



Empowered citizens

Capitalise on the opportunities of the future as empowered creators and users of technology.



Empowering students

Expertly select and apply technologies to maximise every student's learning and progress.

INTRODUCTION

This year at Rivergums Primary School, we simulated a 1:1 device learning environment in a Year 4 and 5 class for a 5 week period. Each class had access to iPads for each student to have during school hours and for them to use to support their learning.

The trialling teachers were given additional time, professional learning, coaching and mentoring to plan for and incorporate the technology into their existing year level programming.

During this trial we set out to investigate the capacity of iPads to:

- Increase student motivation and active engagement in learning.
- Increase independent and self-directed learning among students.
- Improve teachers' capacity to plan for and meet individual student needs.
- Extend learning beyond the classroom.

STUDENT VOICE

Before students undertook the trial, they completed a survey to analyse their iPad usage. Here are the results of the survey:





Teacher: Miss Rowenna Hendricks

Focus Question: How does 1:1 increase student motivation and active engagement in learning?

Background:

Student motivation is the greatest limitation on teachers' effectiveness (Human Resources Research Organization 2003). Motivating and engaging students at school is a contemporary educational issue and can affect students cognitively, emotionally and behaviourally.

Research shows that integrating and switching up content delivery helps to maintain student interest and engagement. During the 1:1 iPad trial, different approaches were undertaken to engage and motivate students using technology.

The Trial:

English

In the learning area of English, students used the iPads in a variety of different ways during spelling each week to consolidate their learning. Below are some examples in which students completed a choice board activity.



Students were asked to write a spelling story incorporating as many of their spelling words in it as they could, and using the highlight tool, highlight their spelling words. In another activity, students were asked to use their spelling words to create a word sort in the Pages App. They used the function tool to insert the table and then typed their words into the sections. These activities proved to be engaging and effective to all students of different levels and abilities.



Mathematics

During Mathematics, students learnt how to play the game Numero. A way of reflection on their own learning, students filmed themselves playing the game. They reflected back by viewing their video and seeing what strategies and algorithms they used while self-talking their reasoning out loud.



Students learnt about area and perimeter. To build on their learning in an engaging way, students used the Geoboard App to create their own shapes to calculate area and perimeter. This was a simple and fun way for students to show what they understood about the topic taught.

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Design Technologies: Ship Project



In the learning area of Design Technologies, students were given a project to design and create a ship that will safely sail. They were asked to use specific words when researching. Students researched what different ships looked like, what materials are used to build ships and how ships moved. When they researched these areas, students used the app Popplet to create a mind map to support them to think and learn visually. Students grouped and categorised their information using 'popples'. Students were able to move the 'popples' around to change or add more information.





The final product was that they were able to video their researched information, thoughts and ideas about ships to video and record their final sail. Students were able to showcase their ships by uploading a video to Seesaw to demonstrate their learning to their parents/guardians.

English/Humanities and Social Sciences: World Explorer Biography

In the learning area of English and HaSS, students used the iPads to research a Famous World Explorer using a variety of quality websites that were suitable to each student's capabilities. Students were also given the option to utilise the dictation/speak function, a function that comes pre-loaded on Apple iPads. This allowed students to access content to assist with the comprehension of information. Students highlighted the text and it was then read out to them. This is a useful function for those who needed clarification of the text.

After researching, students used the Pages app to write and publish their World Explorer Biography. Students added digital elements by including images, heading and subheadings to set up their Biography, while also customising their individual work. Their final product was then uploaded onto Seesaw for parent/guardian communication and feedback.



Health: Zones of Regulation

In the learning area of Health, for a morning activity, students were asked to sort the emotions into the four different zones. Students found this activity engaging as it was easy to move and manipulate the words. It also clearly demonstrated student understanding about the Zones of Regulation.





Outcomes:

- Increased engagement for all students. They were easily able to access the learning. Students could record their answer via voice recording instead of typing or have the content spoken to them. They were able to extend their knowledge and understanding through additional research or creation.
- Increased motivation for students to produce high quality work by having an authentic audience.
- Students looked forward to coming to school every day and being excited about their learning journey.
- Increased parent involvement and feedback using Seesaw.
- Students completing their activities within the time frame given due to being able to work productively using different application/software on the iPads.
- There was a reduction in photocopying usage for resources and activities.

Additional activities



Positive Behaviour Support(PBS) Program









Fractions



Teacher: Mr Gareth Stevens

Focus Question: How does each student having access to their own iPad increase reflection and accountability?

Background:

Being a reflective learner involves students making learning a more conscious process. It helps them to become an active learner by asking questions and thinking critically about their own ideas.

By asking students to become reflective learners, they can develop skills that they may not have previously been confident doing, such as sharing what they have learned with others. It allows them to identify ways they can improve their own work and help them set challenges and goals for their future learning.

This is often a challenge teachers face with many students reluctant to share verbally with peers, or simply unable to find the words to explain what they have learned. The focus of the trial was to see the impacts of students having an iPad 1:1 on the reflection process, fostering autonomy and building self-confidence through the recognition of progress. It was hoped that it would give each student a voice with which to share their learning journey.

The Trial:

Goal Setting and Weekly Reflection

An area of need identified was the students ability to set purposeful goals and then work towards achieving them. Students were taught about goal setting and were given the opportunity to discuss what they wanted to achieve that day, during that week and throughout the whole trial. The students focussed on making their goals SMART goals.



Each Monday during the trial students would develop a goal linked to what they were learning that they wanted to achieve by the end of the week. This was added to their weekly reflection on SeeSaw and revisited at the end of the week.

As teachers reflecting on ways to enhance our daily instruction, we ask: How did the students respond to the day's lesson? Were the learning objectives met? How could we better manage our time? What methods might further engage our students?

Every Friday, students spent 10–15 minutes reflecting on our week together. They responded to three key questions that prompted personal reflection:

- 1. What did you learn this week?
- 2. What activities helped you to learn?
- 3. What activities did you find engaging?

As part of their weekly reflection, they were asked to use the Numbers app to record their weekly spelling results. This was a great motivator for students as they wanted their graphs to show the best results possible.

At the beginning of the trial, students were shown how they could enhance their learning and accountability using the Numbers app. This process involved developing ICT skills around the functions of the Numbers app and using the model of gradual release until students were able to record their spelling results in the app independently, which produced a graph.



Week 7 Reflection

My weekly goal is...

My goal is to understand simplifing fractions a bit more then i do now.

How did I go this week?

i do understand simpifing way more then i used too so yes it went amazingly well.

HASS: Sydney Cove Project

During Term 2, the focus area in Humanities and Social Sciences has been settlement of Australia. As a class we learned about the different reasons for settlement, where and when settlement of the Australian states occurred and the consequences for the people and the environment. Over a series of lessons, students were able to research Sydney Cove using a range of online links using Safari browser. This proved to be very successful as students were able to immerse themselves in the learning and really get a sense of what life was like as they could see images for themselves. Students were asked to use the Keynote App to collect a range of maps and photos of colonial buildings to give them a far greater sense of how the colony at Sydney Cove developed.

Curriculum Link:

The patterns of colonial development and settlement (e.g. geographical features, climate, water resources, transport, discovery of gold) and how this impacted upon the environment (e.g. introduced species) and the daily lives of the different inhabitants (e.g. convicts, free settlers, Aboriginal and Torres Strait Islander Peoples) (<u>ACHASSK107</u>)





From their research, students were able to apply their knowledge to build their own Sydney Cove Colony using the Minecraft app. This immersive experience allowed the students to enhance their creativity, problem-solving skills and allow for self-direction within a given set of parameters.





Design Technologies: Mars Rover

In Design and Technologies, we were able to link our learning on Earth and Space Sciences to design and build a Mars Rover.

The students began by reading a book called Curiosity by Markus Motum. This enabled students to identify the key components of a Mars Rover and begin the design process for building their own Mars Rover against a set of specifications. As part of their project, students were asked to keep an online journal of their progress using the Seesaw app.

Designing

Develop and communicate alternative solutions, and follow design ideas, using annotated diagrams, storyboards and appropriate technical terms (WATPPS29)

Producing and implementing

Select, and apply, safe procedures when using components and equipment to make solutions (WATPPS30)



During the final stage of the project, students were asked to evaluate their design and critically reflect on their progress.



Outcomes:

- Use of the iPad creates an immersive and active learning environment, which creates opportunities for personalised, student-centred learning. It allows students to develop essential skills, learn through media, harness creativity and become reflective learners.
- The process of a weekly reflection has enabled the students to develop a growth mindset. Children with a growth mindset believe that intelligence can be developed. It teaches students that key skills can enhance their learning, such as perseverance in the face of failure. It shows them that effort is required to build new skills, to embrace challenges and it fosters a desire to learn. Getting students to reflect digitally has given students the confidence to be critical of themselves and to see challenges as a learning opportunity.
- Their reflections demonstrate the many aspects of learning and development taking place in the classroom every day. Student reflection on learning is a powerful tool in any primary school classroom.
- The trial has shown students that it is okay to recognise progress rather than achievement and that if they are moving forward, they are learning. This has boosted motivation to complete work to a high standard, has lifted the quality of student work and improved engagement in the classroom. There has been an increase in on task behaviour and through the goal setting process students now feel accountable to themselves as well as the teacher and their parents.
- There has also been a noticeable increase in productivity, once students had mastered the ICT skills required to effectively use the iPads and the apps associated with each learning task.

STUDENT VOICE





32 responses • Yes - it enhanced my learning • No - I didn't learn as much as before • Neither - about the same



CONCLUSION

At the end of the 10 week period, we spent time analysing the data, work samples, student stories, teacher stories and found the following:

iPads in a 1:1 setting have the ability to:

- Increase student motivation and active engagement in learning. Students were easily able to access their learning and they could present their knowledge in a variety of ways. Students were able to extend their knowledge and understanding through additional research or creation. They were motivated to produce high quality work by having an authentic audience. The teacher had the ability to vary the way content was delivered which made it exciting and interesting for the student.
- **Increase independent and self-directed learning among students.** The iPad creates an immersive and active learning environment, which creates opportunities for personalised, student-centred learning. Students learn that progress is more important than achievement and that if they apply a growth mindset they will succeed.
- Improve teachers' capacity to plan for and meet individual student needs. Classroom teachers students had the reliability of devices when and where they needed them. Through the use of assistive tools such as 'speak' function or speech to text and teacher set templates and scaffolds, students are able to access their learning easily.
- **Extend learning beyond the classroom.** Students learn the different tools that they need to be successful in any environment, such as note taking and research. With access to the internet, students have unlimited sources of information to access and personalise their own learning.



