



# HEAR and LEARN

CLASSROOM SOUND ENHANCEMENT



Better  
Teacher/Student  
Communication For  
All Kids And  
All Rooms



[www.hearandlearn.com.au](http://www.hearandlearn.com.au)

# Sound is as important as sight

Hear and Learn Hubs allow every learner to be delivered every part of every word that a teacher offers them.

The fact is this; sound fades over distance.

Especially consonant sounds. Avoid raising your voice!  
Auditory Learning is optimized with Hear and Learn Hubs.



## Classroom technology makes hearing easier

■ **Brooks Rolfe**

STRAINING to hear teachers talk over the noise of a full classroom or the rain on a tin roof is something of the past for students at Leschenault Catholic Primary School.

The school has been rolling out RedCat technology, which involves the use of high definition microphones and speakers, for the past four years and now features the devices in almost all of its classrooms.

Principal Paula MacKenzie said the technology was making a "huge difference" to the way students learn

and particularly benefited those coming through with auditory processing problems.

"When teachers are talking and they're going through sounds with children, it's very hard for some children to hear some of the differences," Ms Mackenzie said.

"This makes it really clear, because it makes it sound like it's actually in the children's ear."

Each set costs about \$2000 and Ms MacKenzie said the expense was well justified by the positive impact it was having. "We're actually doing the letters

and sounds program right throughout the school, so when teachers are talking about all those different sounds, it just makes it really clear for the children," she said.

Students are encouraged to make use of the microphones when presenting to the class and extra "pods" in the Year 6 classroom allow children to communicate with their teachers more directly.

Every class in the school will have access to the technology next year once the devices are installed in Years 4 and 5.

Bunbury Herald Jan 2017

Surround sound, just like in my car!

Classroom noise and the inability to hear their teacher's instruction can cause a child's focus to drift and disruptive behaviour, minimised learning outcomes and stressed teachers are often the result. But St Agatha's Deputy Principal, Paul Sharp says the RedCAT system has positively impacted the school's classroom management.



"The teachers are telling us they're able to moderate the level and tone of their voices," says Paul. "Their voices are calmer, their delivery is more succinct and the environment of their classrooms is quieter and more composed. Receiving a clear sound helps students listen and curbs disruptive behaviour."

St Agatha's Catholic Primary School, Melbourne



# Creating Best Practice Auditory Learning Conditions In Existing And New Learning Spaces.

Some examples of our solution bundles



*Incorp into  
our new  
building!*



"The Hear and Learn technology enables children to hear not only the sounds of words crisply clear, but the formation of sounds, and that's very important for young children when they're learning words and how to pronounce them. These children are accumulating the beginnings of language at his level," said Paula. "They are learning about initial language, how it sounds and the blends of sounds, so it's vital they are able to clearly distinguish those sounds."

Leschenault Catholic Primary School WA



# New Technology For New Challenges

## Class descends into chaos Minister calls for zero tolerance in our schools

**EXCLUSIVE**

**Bruce McDougall**

FEDERAL Education Minister Simon Birmingham has demanded a "zero tolerance" approach to bad behaviour in Australian classrooms after two major international reports released today show some classes are so chaotic with "noise and disorder" that up to half of the students are unable to hear the teacher.

Naughty and disruptive children have emerged as a major reason why Australian students are falling behind the rest of the world in key subjects including maths and science.

The reports link the underachievement of students in Australia's schools to discipline problems and rampant bullying. About one-third of students in affluent schools and half of those in disadvantaged schools report that almost every class is affected by ill-discipline and students do

not listen to the teacher. "This research demonstrates that more money spent within a school doesn't automatically buy you better discipline, engagement or ambition," Mr Birmingham said.

"While governments are investing ever more in addressing disadvantage, we need communities and families to focus on how we simultaneously change behaviour and attitudes.

"Ill-discipline or a bad atti-

tude doesn't only hurt the outcomes of the student who brings such an approach to school but can infect entire classrooms of students."

The Program for International Student Assessment, which assessed 14,500 15-year-olds at 758 schools, found Australia scored "significantly lower than the OECD average" for classroom discipline levels.

And the Trends in International Mathematics and Science Study reports that 20 per cent of Year 4 students and 9 per cent of Year 8

students are bullied regularly.

Half of students in NSW reported "noise and disorder" in their science class most or every lesson — the second highest rate in the country.

And 44 per cent of the state's students don't listen to what the teacher says the majority of time. NSW also fared badly with nearly one-third of students saying "they cannot work well" in their science classes "all" or "most" of the time.

Tasmania was the only state that rebounded worse results, while

Victoria had the least problems. Australian science students were less likely to listen to what their teacher said in class than their Estonian peers, who also found it easier to "work well" in class because of the discipline.

Aussie students are also suffering from "noise and disorder" at a much higher rate than students in Singapore, Finland and New Zealand.

Daily Telegraph March 2017

This is something we should trial



"We use the RedCAT system to make our learning environment as conducive as possible for as many students as possible," says Mr Carter. "If you can hear, you can learn. It's as simple as that."

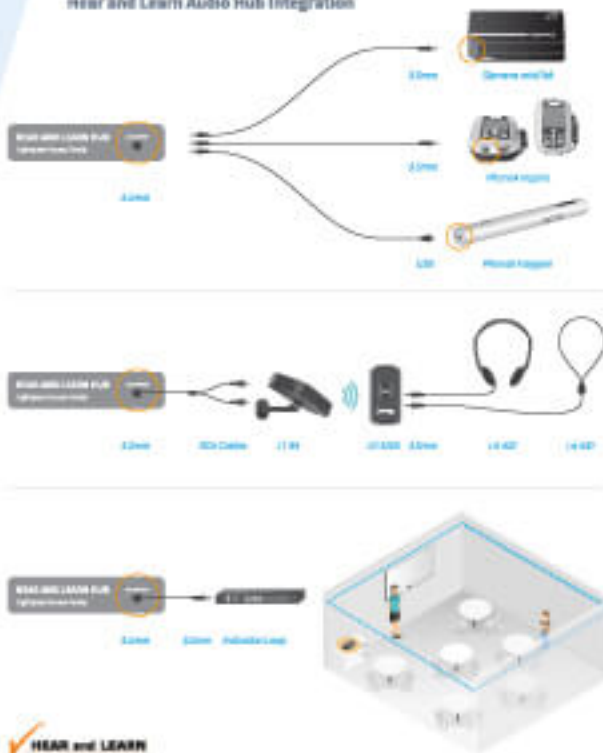
"There are lots of benefits for students using the RedCATs," says Ms Snelgrove. "Students have different hearing abilities with varying language concentration. It's important to support student engagement, encourage interaction with their peers, and highlight explicit teaching points and times."



# Integrate with any brand and type of student hearing assistance device and AV equipment

## Assistive Listening Integration

### Hear and Learn Audio Hub Integration



## Access Technology and Assistive Listening Devices: Optimizing connectivity and performance.

The Hear and Learn Audio Hub allows for the connection of all crucial essential assistive devices including IR and Infrared technology. Further, all other sound sources – including the voices of teachers, the voices of students, the sounds of any portable AV equipment used – are sent to the Audio Hub.



Connect everything in to one hub! Easy!



"Teaching staff immediately noticed a marked difference, particularly in that child's ability to attend to what was going on in the classroom and what the teacher was saying," says Ms Knight. "It had a positive impact on the entire class, particularly the boys."

"The RedCATs have made a massive improvement in both concentration and listening for students during these busy, whole class activity times in particular," says Prep Teacher Ms Shanny. "There was an instantaneous response when we first used it. It's amazing how powerful it was."





# The Biggest And Safest Family Of Solutions



Longer range reception for large, open areas



No impact to Wi-Fi networks, and no interference.



Bi-directional audio communication between teacher and students.



Dynamic selection and redirection of audio devices



Scalable platform to build and grow as instruction evolves

#### HOW IT WORKS:

During operation, Access regularly checks the quality of the service to ensure optimum performance without interference. Should it find that the RF environment has changed, it will hop to another frequency that offers a clearer signal. This frequency hopping is completely automated and imperceptible to the user.

#### COMPARISON TO OTHER DIGITAL TRANSMISSION:

Access operates in a dedicated 1.9GHz band and was designed specifically for audio applications. This creates two distinct advantages over common spread spectrum technologies like Bluetooth, Wi-Fi and others that operate at 2.4 GHz, including:

- **Clear operation and immunity to interference:** there is no competition with 2.4 GHz devices like headsets, computer mice and keyboards and wireless routers; as well as RF remote controls, portable phones and even microwave ovens.
- **Very short audio latency (delay):** DECT ensures speedy transmission of the signal. Bluetooth devices carry as much as 10 times more latency (fine for data and cell phones). Unacceptable in live face-to-face audio applications.



## Audio solutions for the 21st century classroom



#### Flexcat.

A powerful tool for small group instruction.



#### Redcat Access.

Clear audio for group leaders throughout classrooms.



#### Topcat.

Easy-to-install, full-range audio for groups, teachers and students.



 "Our IT department have also been impressed by the fact that the systems run in a 1.9ghz range and therefore not on our wireless system (2.4ghz)"

Tim Lambert, Head of Junior Years, Good Shepherd Lutheran College, Noosaville



# Offices Australia Wide. Trials, Design, Training And Service



**Wanneroo Times**  
Communitynews.com.au

Tuesday, April 18, 2017

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## Students get a clear message

THE arrival of a Year 2 student to a classroom with a system made Hear and Learn possible and the impact technology can have for children with a hearing impairment.

"When that student said 'wow, I definitely hear you' and said what was different, I realized the potential for Hear and Learn's walk-in-room system for school," said Dr. Stephen's School, Carramar head of primary school.

For children with auditory processing issues, clear and individualized instruction was vital.

"It came to me in a flash, it was a bright idea, full of walk-in-room students and lots of activity, they can become confused," Ms. Proctor said.

"We want to support students who might be struggling with these problems and provide them with a safe, inclusive learning environment."


The Hear and Learn system has introduced clear and consistent sound to the classroom, ensuring a clear and consistent delivery of the teacher's voice.

The system can be switched on or off as needed and works by reducing background noise.

For primary teacher Sandra Curran, the system also gave the students independence and confidence.

"The Hear and Learn system makes it possible for children who are limited or shy to speak with a speech impairment to be clearly understood by their peers and classmates," she said.


Head of St Stephen's Primary School Dr Danielle Proctor and teacher Sandra Curran with Year 2 students Beahd Shaq, Simone Gill, Ivy George, Jackson Proctor and Zachary Curran. Picture: Martin Garmaley

 "This type of system is considered appropriate to the Classroom spaces as it provides the benefit of transmitting the signals to the whole of the space concerned. It improves the sound delivered to all occupants not just those with a hearing impairment. This is significant where the source of the sound is some distance from the listener and reduces strain on both vocals and hearing. The system is noted to also provided additionally functionalities to assist those with a hearing impairment by the use of personal devices such as ipods and the like."

Extract from building surveyor compliance report 2017 



 "Hear and Learn should be a given in all schools"

Architect 2016 Best New School, Victoria 



 "I've seen that it definitely makes life easier for students and teachers"

Technology Designer Best New School, Victoria 

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