



# SoundSmiles

A DIGITAL PLATFORM FOR MENTAL & HEARING  
HEALTH OF INDIGENOUS CHILDREN

- 2023 -



**SoundSmile**

STRONG HEARING | STRONG CULTURE



**EAR  
SCIENCE**<sup>®</sup>  
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Curtin University



MONASH  
University



South West  
**AMS**  
Aboriginal Medical Service

Our Health, Our Way



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# THE CONCEPT

The app aims to provide a streamlined, digitalised platform for children and teachers to be better informed about children's hearing health and mental health, particularly in Indigenous communities. In the future, this will extend to parents/guardians and clinicians.

The children's view of the app is aimed at primary school-aged children. It will provide interactive, engaging and easy-to-view resources about hearing health and mental health while facilitating a method to keep teachers better informed about their class's health.

Early concepts of the teacher's view of the app are also included. It will provide at-a-glance health information about the class and students and recommended resources on hearing health and mental health.

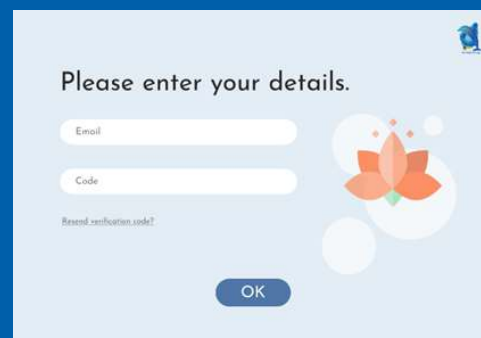
All graphics shown in the app prototype images are placeholders. During development, graphics made by local artists will be used throughout all views of the app.



# LOG IN, SETTING UP AND CUSTOMISATION

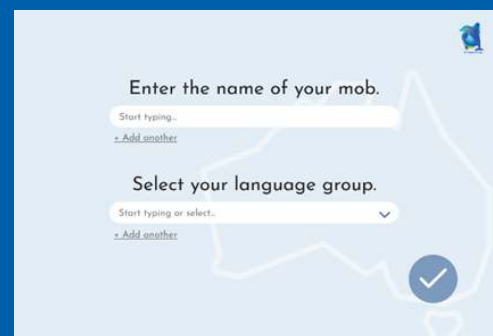
Login will be facilitated by the teacher through email verification codes or similar. The teacher will then select the child who is to be signed in.

## LANDING & SIGN IN SCREENS



Once the child is signed in, they can set up their app experience.

The child enters the name of their mob and language group, with multiple selections if needed. This further personalises the app and promotes community engagement.



This screen affects the design of a function in the app, where the child has access to stress-relieving, fun activities with a mental health and behaviour focus.

Allowing children to customise this area encourages them to express their identity and hobbies, further personalising the app experience.

# DAILY CHECK-IN

The Daily Check-In is a quick quiz activity that the child completes daily. It consists of three questions and should take less than five minutes.

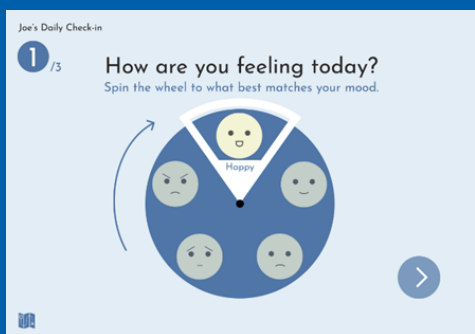
Questions are drawn from a bank of questions related to hearing health and mental health, with questions renewing daily. This ensures that a holistic picture of the child's health is built over time while reducing the repetition of questions whose answers may not change daily.

The purpose of the quiz is to gather information about the child's mental and hearing health regularly. This keeps teachers, families and clinicians better informed on caring for the child's overall health.

It also increases the child's awareness of their personal health and habits, promoting a greater understanding of their well-being.



# DAILY CHECK-IN



The spinner format is for questions with multiple options that are not necessarily related. The child can spin the wheel to highlight their chosen option.

The spinner is a playful way for the child to engage with the question, while improving literacy by associating visual cues with words.

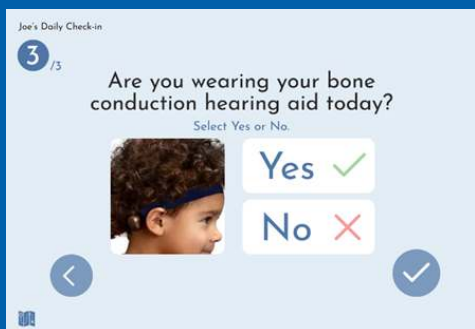
Yes/no questions, displayed in the centre of the screen for easy access.

Questions about habits will provide more information on the overall picture of children's health, while encouraging children to think about their own habits.



The format for yes/no questions with an image associated.

Providing an image accompanying potentially technical terms will make the question clearer.



The slider format is for questions with multiple options that are related, or on a scale. The child slides the slider to select an option.

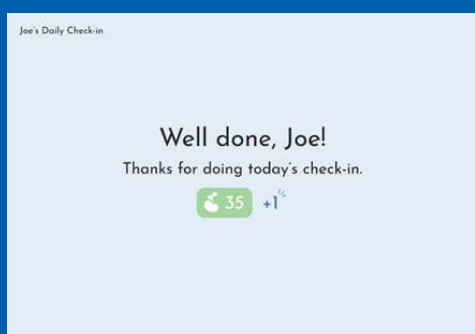
Slider categories are presented visually to minimise text for ease of understanding of the question.

Like the spinner, the slider provides an engaging and intuitive way to interact with the question.



At the end of the quiz, the child is praised with positive encouragement and rewarded with a point to be used in the My Garden page.

This positively reinforces performing the daily check-in, and provides a reward to keep the child engaged with the app.



# HEARING HEALTH AND MENTAL HEALTH RESOURCES

Resources for education on health are available through Classroom for hearing health, and My Quiet Space, for mental health. The format of these resources is intended to be audio-visual, with interactive and/or guided components to engage the child and make learning an enjoyable experience



The Classroom page offers educational resources on hearing health. Resources are presented with visual, colourful graphics and minimal text to draw the child's attention and facilitate easier understanding.

Important activities are highlighted with an alert symbol to signal that the activity should be done on a regular basis. This promotes forming healthy habits, encouraging the child to have a greater awareness and responsibility over their hearing health.

An example of the Blow, Breathe, Cough activity can be seen below. Blow, Breathe, Cough is a common classroom activity that helps children clear their ears.

Digitalising this activity for children to follow along with will provide guidance on the correct actions and timing while encouraging them to initiate the activity independently.



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# HEARING HEALTH AND MENTAL HEALTH RESOURCES



The starting screen will show visual-based instructions or a short description about the activity. This ensures that the child understands and is prepared for the activity.

Activity is guided and timed to provide instructions on the action to be performed. Animations of the action and timing guides the child to follow along using visual cues.



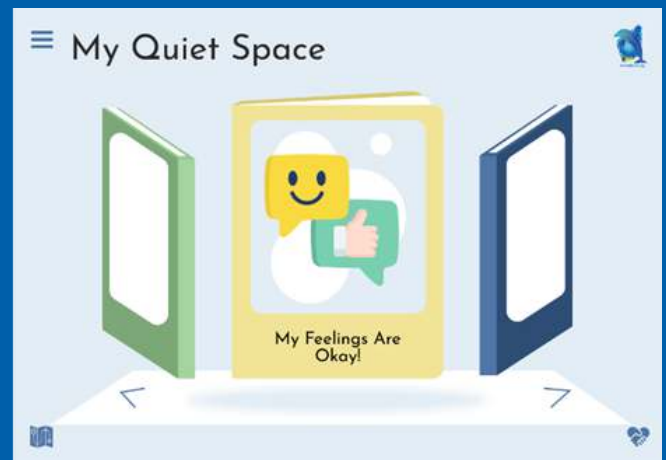
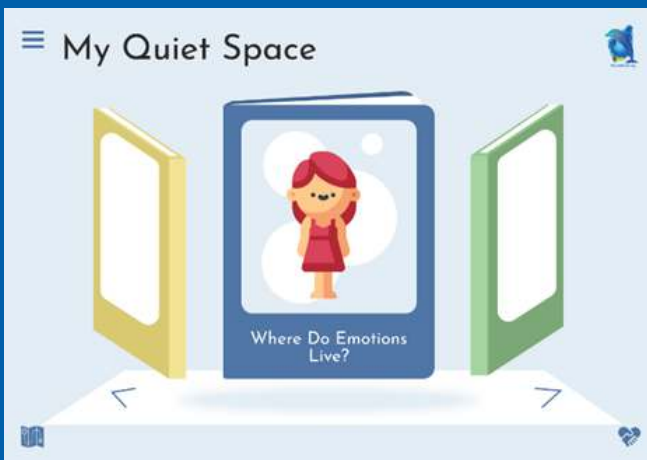
Like the Daily Check In, the child is positively reinforced for completing the activity with positive encouragement and a reward of points.

This further encourages exploration of the app and its resources to gain more points, engaging children to learn more about their health.



# HEARING HEALTH AND MENTAL HEALTH RESOURCES

The My Quiet Space page provides resources on education about mental health, presented in similarly interactive ways to Classroom. The purpose of this page is to give the child a quiet, safe space to explore their emotions and gain strategies for coping with stress in a positive manner



The My Quiet Space page consists of resources presented in a 'bookshelf' format that the child can scroll through. Resources are presented one by one, with visuals and minimal text, to maintain the quiet, calm atmosphere of the page and prevent the child from being overwhelmed with choices.

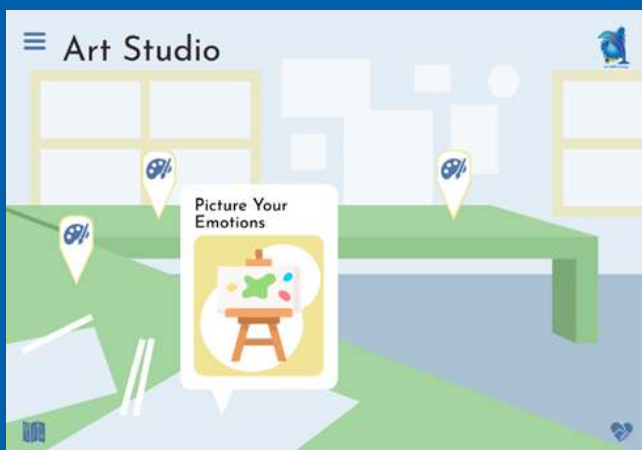
When a book resource is interacted with, it opens up to show a short description and graphic, providing more information about the activity. This animation is intended to mimic a real book on a bookshelf, providing a playful and intuitive way for the child to interact with the resources.

As with activities in Classroom, these activities will be designed to be audio-visual, with interactive or guided components.



The Customised Room provides play-based activities and exercises centred around mental health. This customisation is done during set up, after logging in. In this example, the child has selected 'Art Studio'.

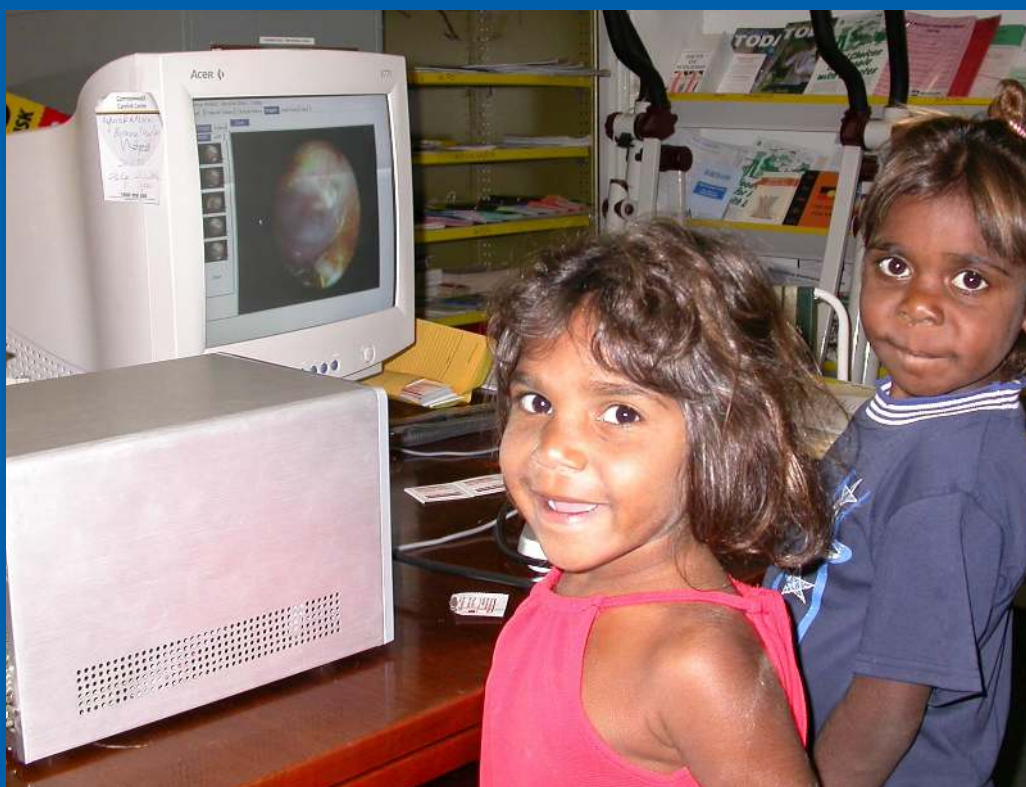
# HEARING HEALTH AND MENTAL HEALTH RESOURCES



Allowing the child to choose the 'room' they'd like to visit allows them to express their identity and hobbies, creating a safe and fun environment to explore their mental health.

Available activities are the same in every room regardless of room choice, with one or two different activities tailored to the room.

Activities are scattered around the room in a 'point and click' style, to encourage the child to explore the room. When an activity is interacted with, the title and a graphic appear. Only one will be presented at a time to further encourage the child to explore and interact with all activities.



# MY COUNTRY AND MY GARDEN: MINDFULNESS SPACES

The purpose of the My Country page is to allow children to practice mindfulness while interacting with nature, either as an individual guided activity or class activity. By using all five senses to explore the environment around them, children are guided to calm their bodies, practice breathing and centre themselves in the present.



The My Country page consists of one main guided activity, Mindfulness on Country, with another function called My Community for sharing within the classroom.

On the main activity, a title, short description and duration is given to inform both the child and the teacher about the activity. This way, the activity can be done individually or as a class.

The main activity, 'Mindfulness on Country', will guide audio and visual cues in using the senses to explore the environment. While the format of the activity is still to be decided, potential ideas include the following:

- Videos or voiceovers of Elders and other community members guiding actions to be performed or reflecting on what being on country means to them. This will encourage community engagement and provide familiar voices or faces to the child.
- Digitally interactive components. These will encourage the child to engage with the environment in a fun way while increasing digital literacy skills. These include:

Using the camera to take photos according to prompts, for example, "Take three photos of three of the favourite things you saw in nature."

Using the microphone to record sound according to prompts, for example, "Record an interesting sound you heard in nature."

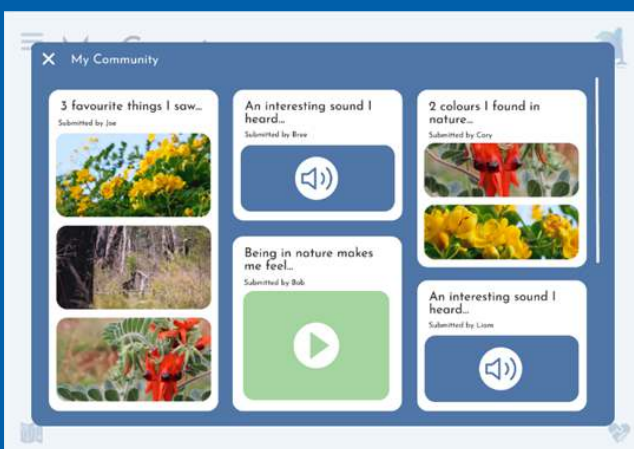
Take a video of themselves talking about what being on country means to them.

Take a video of themselves instructing their peers on how to do parts of the activity, for example, doing the breathing exercise.

- Animations to provide visual cues to give guidance and timing.

# MY COUNTRY AND MY GARDEN: MINDFULNESS SPACES

The My Community function encourages children to share their experiences on country by submitting parts of the completed activity onto a shared board accessible to their class and teacher. Much like classroom displays of students' work, this allows children to take pride in what they've accomplished while seeing the work of others.



The board in My Community displays children's submissions from the Mindfulness on Country activity. Children are encouraged, but not required to submit.

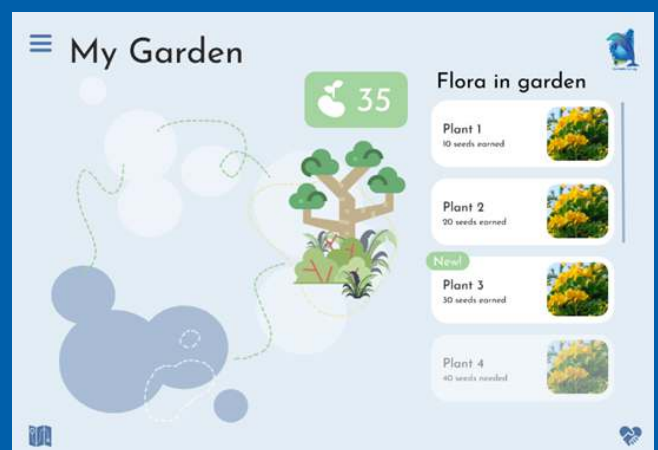
Titles are pre-made prompts from the Mindfulness on Country activity. This provides consistency to submissions, while also giving the child choices on what they'd like to submit.

A mix of media can be submitted, including photos, videos or sound files. This provides variety and visual interest, encouraging the child to interact with their peers' submissions

The My Garden facilitates the app's reward system – by completing activities, children earn points, which will earn new trees or plants in My Garden. This gamification aspect encourages children to engage with the activities in the app.

Native Australian flora will be used as rewards for points. There is potential for this to become an educational tool – by clicking on a plant, the child can learn more about it.

As points go up, more plants are available for the garden. The garden will slowly fill in, encouraging the child to earn more points to fill the blank spots in the garden.



To further incentivise children to complete activities to earn points, rewards can be extended into the real classroom, through a prize box, raffle, free time in the garden or similar.

# PLAYGROUND: DIGITAL LITERACY

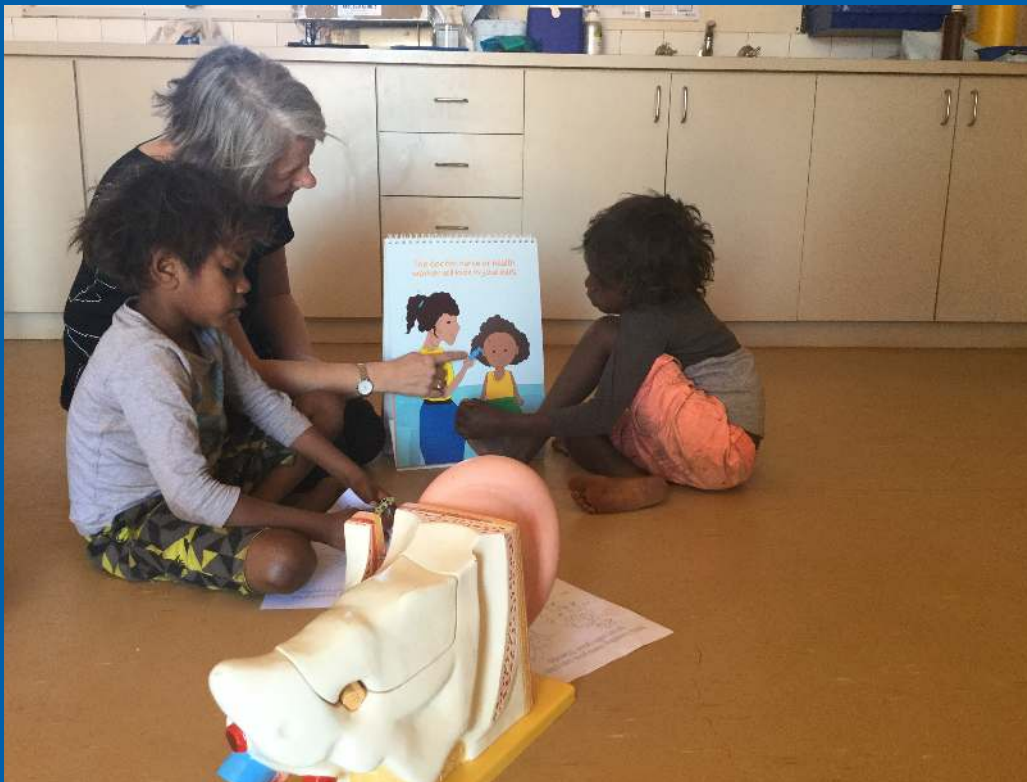
The Playground Page aims to provide social interaction, promoting open communication about health – particularly mental health. It also to increase children’s digital literacy in online interactions within a safe environment



A chat box is available to provide social interaction. At the present, a safe, child-friendly chat bot with a mental health focus will be used to provide a casual channel of communication for the child to express themselves.

In the future, communication will be extended to other children of a class, but the management and maintenance for a safe environment must be considered first.

Social media may also be incorporated into Playground, with safe, child-friendly social media sites. 'KidTwitter' and 'KidTok' are used as placeholders for these sites. As social media becomes the norm, its important for children to learn how to interact with social media positively and safely.



# ADDITIONAL FUNCTIONS: ACCESSING PROFILE AND SEEKING HELP

The Extras menu is accessible on the top left corner of each page through this icon:



The child's details are provided at the top of the menu, which includes their name, mob and language group. This contributes to the child's sense of community and belonging, as well as affirming their identity. Other technical details can be viewed through 'My Details' option.

Other options include Settings, where customisation preferences can be changed; and About, which lists any credits or background information of the app. These options are conventional across many apps, so including them in an accessible location will familiarise children to these conventions, increasing their digital literacy.

The Help panel is available on the bottom right corner of each page through this icon:



The Help panel is accessible in every main page to make the child's support networks easily and quickly visible. Three main channels of support are listed to account for differences in children's social circles, while reminding them that they have many ways of seeking support.

In the future, more specific examples of support channels can be given, for example, giving the teacher's name.

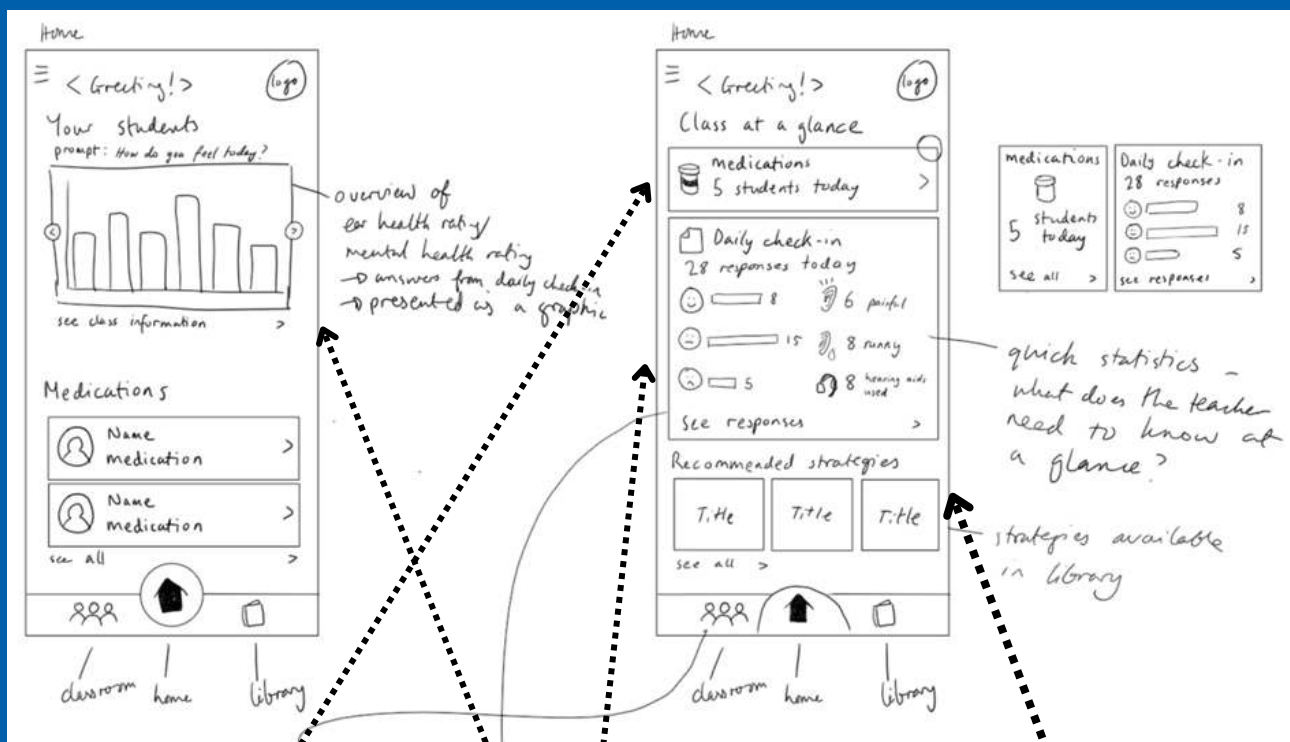
# TEACHERS' VIEW: EARLY CONCEPT

The Teachers' view of the app aims to provide easy-to-access health information about the class and individual students at a glance. While this view is still in its early concept stages, some ideas can be seen below.

The app consists of three main pages:

- 1.Home,
- 2.Classroom and
- 3.Library.

The Home page (2 concepts shown) shows all the class's important information at a glance.



Children who need prescribed medication during school time.

Daily Check In responses at a glance.

Recommended class strategies based on the class's Daily Check Ins.

# TEACHERS' VIEW: EARLY CONCEPT

The Classroom page is where the teacher can view all information about their class.

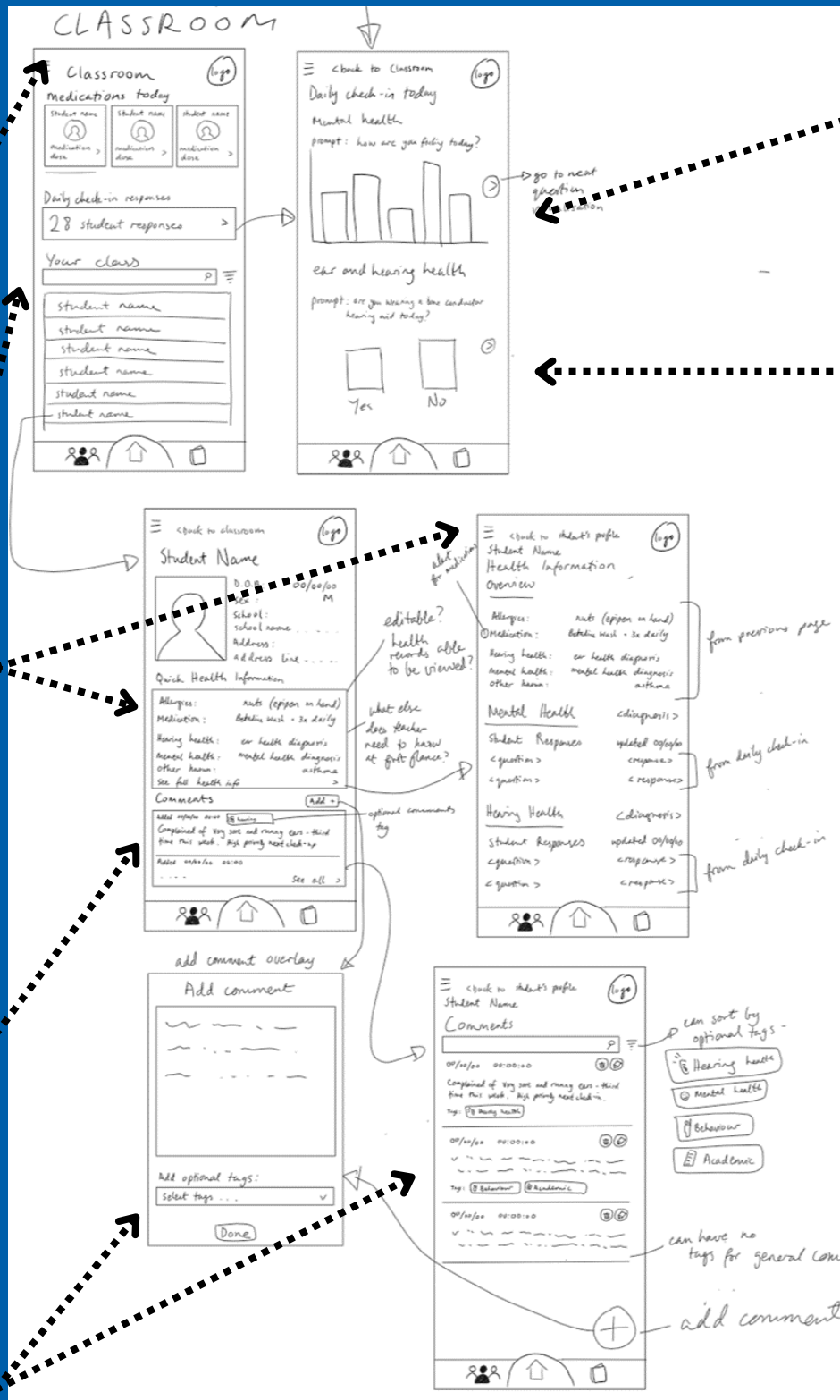
Medications needed – shows child name, medication and dose. Interacting with an entry will lead to more information about the child's health.

Full class list, with search and filtering options.

Individual health information. Important information for the teacher to know is shown on the first page, with more detailed information when interacted with

Comments about health, behaviour or academics can be added by the teacher to the child's profile to monitor overall mental health.

Tags can be added to comments – these tags include 'Mental Health', 'Hearing Health', 'Behaviour', 'Academics' or 'Other' for easy search and categorisation.

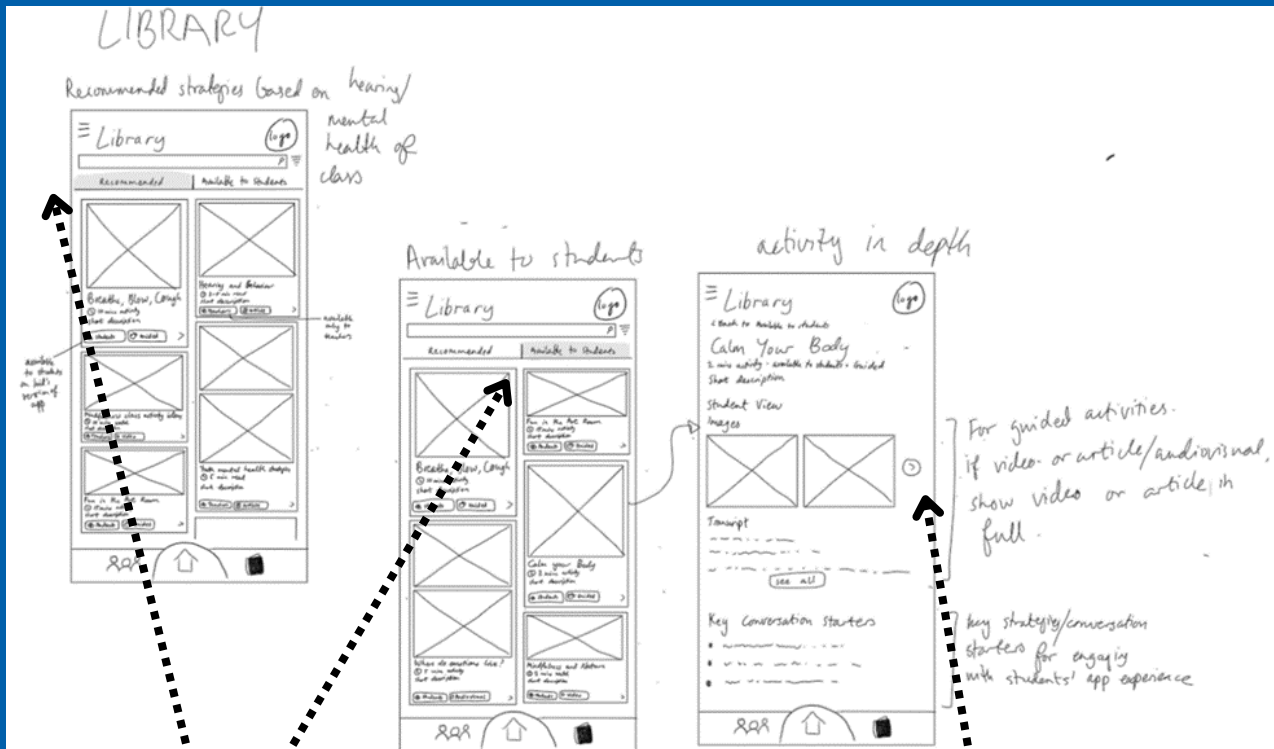


MDaily Check in class results. Results are visualised through graphs or infographics.

Questions asked on the daily check in for the current day, as well as the past few days, are shown.

# TEACHERS' VIEW: EARLY CONCEPT

The Library page has hearing health and mental health resources available to view.



Two tabs 'Recommended' and 'Available to Students' categorise resources.

Recommended resources are given based on the trends of the class's Daily Check In responses and/or what the teacher has identified as problems with in the classroom (in terms of health).

Available to Students show the resources that children can see in their view of the app.

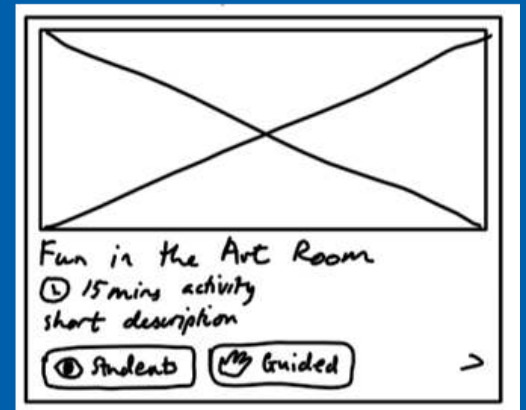
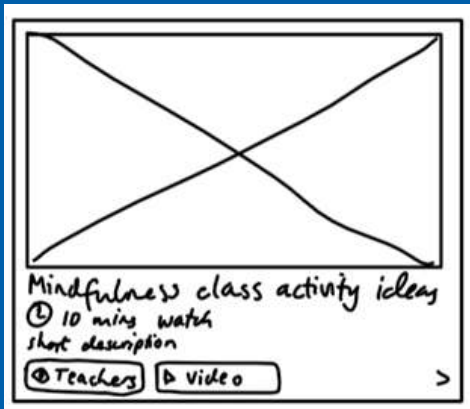
View resource page. If resource is available to students, it will show images of the resource (if it is a 'Guided' activity) or the resource itself.

If the resource has an audio component, a transcript will be shown.

'Key conversation starters' gives the teacher some strategies on how to talk to their students about this resource, or prompt further thinking.

# TEACHERS' VIEW: EARLY CONCEPT

Resources are presented with mostly visuals alongside minimal text, which shows the duration and a short description of the resource.



Tags categorise the resource. The 'Teachers' tag indicates that the resource can only be seen by teachers, while the 'Students' tag indicates that the student can see it on the children's view of the app (as well as the teacher).

Further tags also show what kind of resource it is: 'Guided', 'Video', or 'Article', among others.



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