ANZAGG 3D Meeting  
Wednesday 16 September 2020  
Minutes

# 1. Roll call

Meeting chaired by Leona Holloway, Monash University.

13 people in attendance from Monash University, Sonokids, Victorian Department of education, BLENNZ, NSW Department of Education, SASVI, RIDBC, ACT Department of Education

# 2. Icebreaker - What have you been designing/printing in the last month?

* nets, including a cylinder that can be rolled up
* tactile clock with moveable hands. ACTION: Please share on Teams.
* coffee mugs with support teachers
* more road crossings

# 3. Previous actions

## 3.1 Guidelines

3D printing by BLV people has been uploaded to <http://printdisability.org/about-us/accessible-graphics/3d-printing/blvmakers/>

Published guidelines are available at <http://printdisability.org/about-us/accessible-graphics/3d-printing/>.

Leona is now working on guidelines for touch reading 3D models. The first draft was shared on Teams.

More general guidelines are also needed for teachers and classmates on how to introduce objects to BLV students. Don’t just hand it to them and ask them to guess! The NSW Department of Education are working on these guidelines and will release them at an internal launch in October, when they will move out of the pilot phase into production for 3D models.

## 3.2 Labelling

The UBIS V symbol has shared on Teams, for consideration for adoption in Australia and New Zealand. It is designed to be used in association with a key when there is insufficient space for a full braille word. It is suggested instead of 2-cell braille symbols because it has a clear indicator of which way up. There was some doubt as to its usefulness because:

1. There would need to be widespread understanding about its meaning; but
2. It would only be used on a small proportion of 3D models

ACTION: Please try printing the UBIS V symbol and testing it with touch readers.

## 3.3 Collecting feedback from teachers/students

Ethics submission required.

## 3.4 SPEVI Conference

Abstract submitted.

# 4. Sharing designs

## 4.1 Collaboration

Can we test each other’s designs to help with refinement and release? This is already happening as a result of discussions in meetings and through Teams. However, we could be a bit more organised.

ACTION: Files on Teams to be organised into folders. UPDATE: There is now a folder for 3D. Please place .stl files in there.

Please include a readme.txt with instructions for printing and use.

## 4.2 Thingiverse

Most people are using Thingiverese to search for and share designs. See:

* ANZAGG <https://www.thingiverse.com/anzagg/collections>
* RIDBC <https://www.thingiverse.com/ridbc/designs>
* SVRC <https://www.thingiverse.com/svrc/designs>
* Leona <https://www.thingiverse.com/leonah/designs>

## 4.3 ImageShare

ImagShare 2.0 is now live. It is a free repository of materials for BLV students that has videos, large print, tactile graphics and 3D models, all organised by curriculum topic and with associated lesson plans. See <https://imageshare.benetech.org/>. There is an interface to upload designs.

## 4.4 APH Tactile Graphics Image Library

The American Printing House for the Blind (APH) is evaluating interest in a potential upcoming service related to 3D printed tactile models.  Currently APH hosts the Tactile Graphics Image library (TGIL) found [Here](https://aph.us20.list-manage.com/track/click?u=f36877787e431c3edc0020ff5&id=5fb176753b&e=32795d48fd).  This resource hosts a large number of vector images and a smaller subset of 3D model files.  We have put together the below survey to better understand the interest in growing the 3D files section of the TGIL, along with creating a service that will focus on vetting 3D files that would be submitted to APH and editing them as needed.  Lastly we are seeking interest in a service where TVIs or classroom teachers could send APH a 3D file, and it could be adjusted, printed, and shipped for use by the tactile learner in a timely fashion.

With the need for tactile materials more evident than ever during this time of virtual instruction, we very much appreciate your feedback and time filling out this survey.  
[Click here to begin 3D service survey](https://aph.us20.list-manage.com/track/click?u=f36877787e431c3edc0020ff5&id=def67c8ffc&e=32795d48fd)

# 5. Other Business

## 5.1 Volunteer printing services

Matterhackers are a 3D printing supply story in the US who have teamed with see3D.org to offer 3D printing for blind students through a volunteer network. They cannot extend the service to other countries but can offer advice if we want to set up something similar. A member approached 3D Hubs to set up something similar in Australia but without success.

## 5.2 UBIS next phase

UBIS have received funding for a 3 year project starting in November with partners across Europe. They will work on training for teachers to make 3D models, a database of models for touch readers, OpenSCAD for 3D design by blind students, and more.

## 5.3 Fusion360

Two members have recently started learning how to use Fusion360. Another member already uses it. Fusion360 is fairly easy to use and much more powerful than TinkerCAD.

# 6. Next Meeting

Wednesday 21 October at 11.30am AEST.

Next meeting to discuss 3D design software: What are you using? What are its strengths and weaknesses? With a view to write some guidelines on this topic.