Educator Development Workshop for IDEATE

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About me

Charles Martin

- computer scientist, music technology researcher, performer
- teaching computing at ANU since 2019 (and before that…)
- *Assistant Associate Director Education*, School of Computing
- teaches HCI, music computing, systems, creative coding, etc.
- **lately** responsible for training tutors in our college (~90 in 2025)
- **goal:** make sure our school is an inclusive place to learn computing

Figure 1: Charles playing synths (photo by Sandy Ma)

Plan for this session

1. Setting out the problem to be solved – how to support educators to teach in an inclusive way to a diverse student cohort
2. Describe some of the things universities have tried.
3. Get tables to list all the things they can think of that could be tried / have been tried.
4. Group discussion to ideate on some these suggestions.

Big Problems

our teaching staff make or break inclusion
they don't know how to help!
they might be inclusion skeptics ⚠️⚠️

- *Teachers* in higher ed often have broad autonomy
- Course convenors/lecturers/unit coordinators often in charge of:
  - content, learning activities, assessment
  - decision maker on some types of adjustments and special considerations
  - sets tone for learning environment

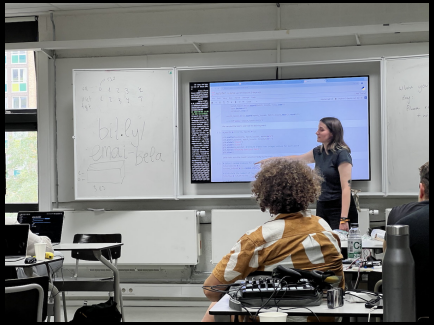

Figure 2: Teaching a workshop (source: Charles)

Big Questions

what teacher development strategies can help make computing education inclusive?

1. **for engaged colleagues:** what resources and measures can we suggest?
2. **for skeptics:** how can we bring them on side?

Figure 3: Photo by Ben Wicks on Unsplash

Accessibility vs Inclusion are related but not identical

Accessibility (foundations)

- **remove barriers:** eliminating specific obstacles for accessing learning materials and environments
- **compliance-driven:** requirements in law and ANU policy
- **reactive:** respond to needs through accommodations and modifications (e.g., ANU EAP)

inclusion (next steps)

- **belonging:** create environments where everybody feels valued, supported, and able to participate
- **proactive:** shape the educational experience to support all learners from the outset
- **community:** beyond accommodations to support all students

Example: Small Class Teacher Training at ANU

ANU Centre for Learning and Teaching provided tutor training for computing until 2024.

I stepped in to re-design tutor training for the College of Systems and Society (~90 tutors in 2025).

1.5 hours on inclusive teaching practice:

1. what is inclusion?
2. why does it matter?
3. what can **you** (a casual) do about it?

Adapted strategies from UniReadyToolkit (link) to make sense for tutors.

Figure 4: UniReadyToolkit (link)

UniReadyToolkit Principles

1. know your students
2. **design inclusive curricula and assessments**
3. **embed academic literacies (e.g., hidden curricula)**
4. use diverse teaching strategies and resources
5. create inclusive classroom environment
6. embed support systems
7. **facilitate continuous reflection**

Figure 5: UniReadyToolkit (link)

Task 1: What have we tried with engaged colleagues?

- **list 10 ideas to help implement the principles of inclusion**

Rules: This is about developing staff, not policy at department/faculty level.

- **then:** rank the measures and tell us about the top three from each table.

the principles:

1. know your students
2. design inclusive curricula and assessments
3. embed academic literacies (e.g., hidden curricula)
4. use diverse teaching strategies and resources
5. create inclusive classroom environment
6. embed support systems
7. facilitate continuous reflection

Heard around ANU: why could these statements be problematic?

We supply the tools, it's up to the students to do the rest.
All students need to read and fully understand the exercises before attending class.
All third year CS students should be comfortable using Linux.
You won't get an extension without a medical certificate.
You can't use generative AI for any aspect of this course.
Students don't understand computers anymore.

How do these statements interact with the idea of *academic standards*?

Task 2: Engaging Skeptics Eight Ways

- **the task is to *ideate* ways to bring skeptics on side**

we'll do a Crazy 8s design sprint.

1. fold your piece of paper into 8 sections.
2. start the 8 minute timer
3. sketch one idea in each rectangle
4. stop when the alarm goes off

Figure 6: Crazy 8s is a design sprint method.

What did we learn?

Hopefully something!