

TEMC 2021 Bright Futures Rising to Greater Heights

Transforming Learning on Campus
using the Effective Teaching and
Learning Spatial Framework

Dr Jo Dane, ERA-co

The logo for ERA-co, featuring the text "ERA^{co}" in a white, sans-serif font. The text is enclosed within a circular graphic composed of short, white, dashed lines that form a ring around the text.

ERA^{co}

Agenda

1. The Effective Teaching & Learning Spatial Framework
2. The Effective Teaching & Learning Evaluation & Design Tool
3. The Benefits of Active Learning



1

The Effective Teaching & Learning Spatial Framework

- a) What is 'effective teaching & learning'?
- b) What human behaviours are associated with effective teaching and learning?
- c) What spatial characteristics enable those human behaviours?

1. ...encourages the teacher to understand the student's perspective and build meaningful relationships with students



BEHAVIOURS

- The teacher moves around the room and accesses all students equally and equitably
- The teacher engages with students individually, in small groups or as a whole cohort
- The teacher and students access the same educational technologies (such as digital screens and writable surfaces)

1. ...encourages the teacher to understand the student's perspective and build meaningful relationships with students



SPATIAL CHARACTERISTICS

- Space between table settings to move around
- Space for the teacher to access and talk to individual students
- Space for the teacher to access and talk to small groups of students
- A central location for the teacher to facilitate a discussion with the whole class
- Wall space for the educational technologies; space to access them

2. ...is a social process whereby knowledge is socially constructed



BEHAVIOURS

- Students interact at a 'personal' or 'social' distance as tasks are being established
- Students move around to initiate full engagement of tasks at a 'personal' or 'intimate' distance
- Students undertake activities at different levels of engagement and at varying distances, simultaneously in the classroom

2. ...is a social process whereby knowledge is socially constructed



SPATIAL CHARACTERISTICS

- Furniture settings enable students to work together in small groups or pairs in close proximity
- Mobile furniture settings enable students to rearrange furniture (if required) so they can work together in large groups, small groups, in pairs or individually, and for this variety of interactions to take place simultaneously

3. ...fosters a deep approach to learning that encourages student independence



BEHAVIOURS

- Students and teachers manipulate the physical environment to access appropriate resources and environmental conditions
- Students work at their own pace
- Different students engage in different activities at the same time

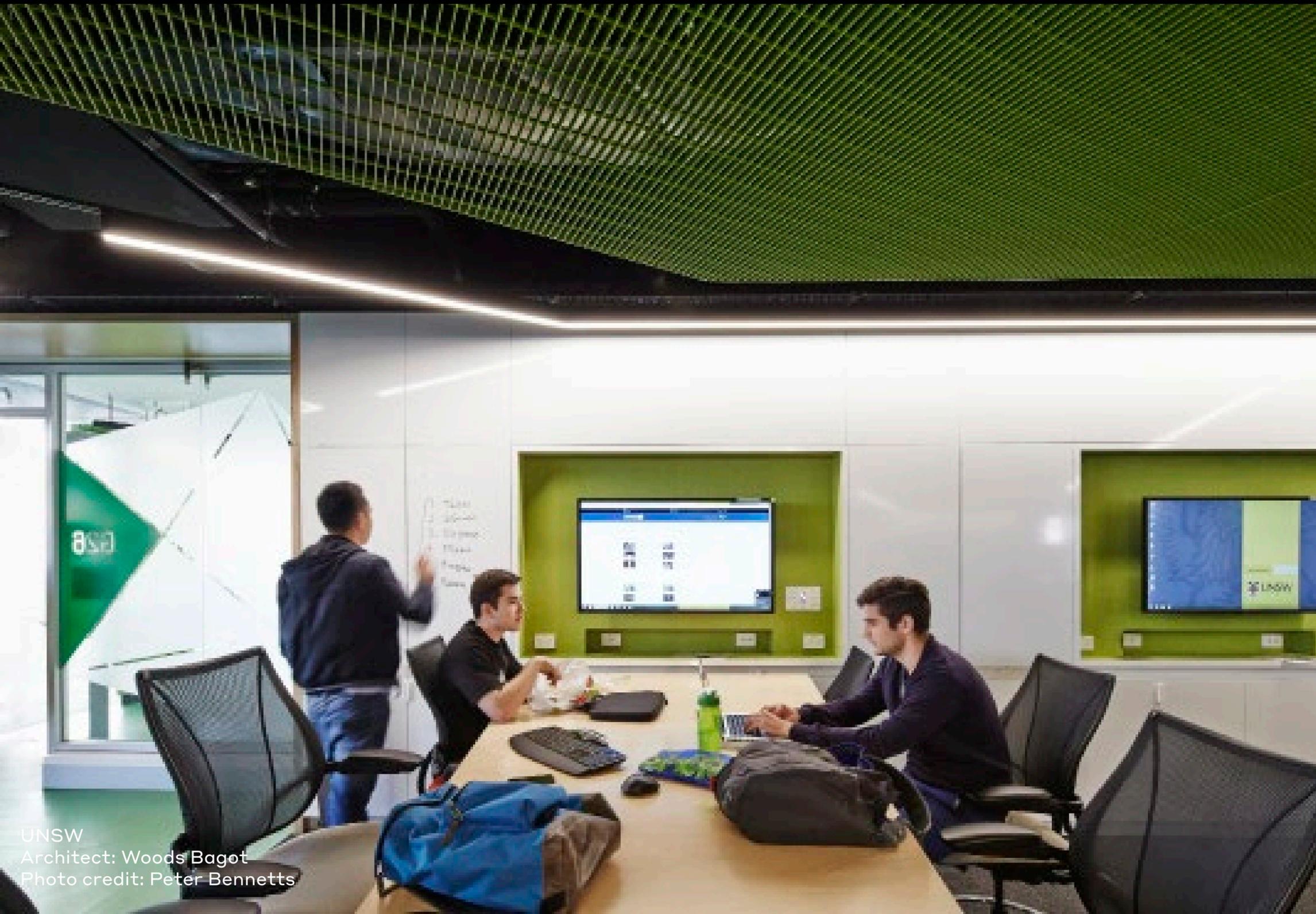
3. ...fosters a deep approach to learning that encourages student independence



SPATIAL CHARACTERISTICS

- Mobile furniture to reconfigure the classroom, including for example, creating a quiet area for reading and thinking in one area and a collaborative discussion in another area of the room
- Furniture settings in which students can undertake focused work, or access resources independently to work at their own pace, including being able to move to a quiet part of the classroom

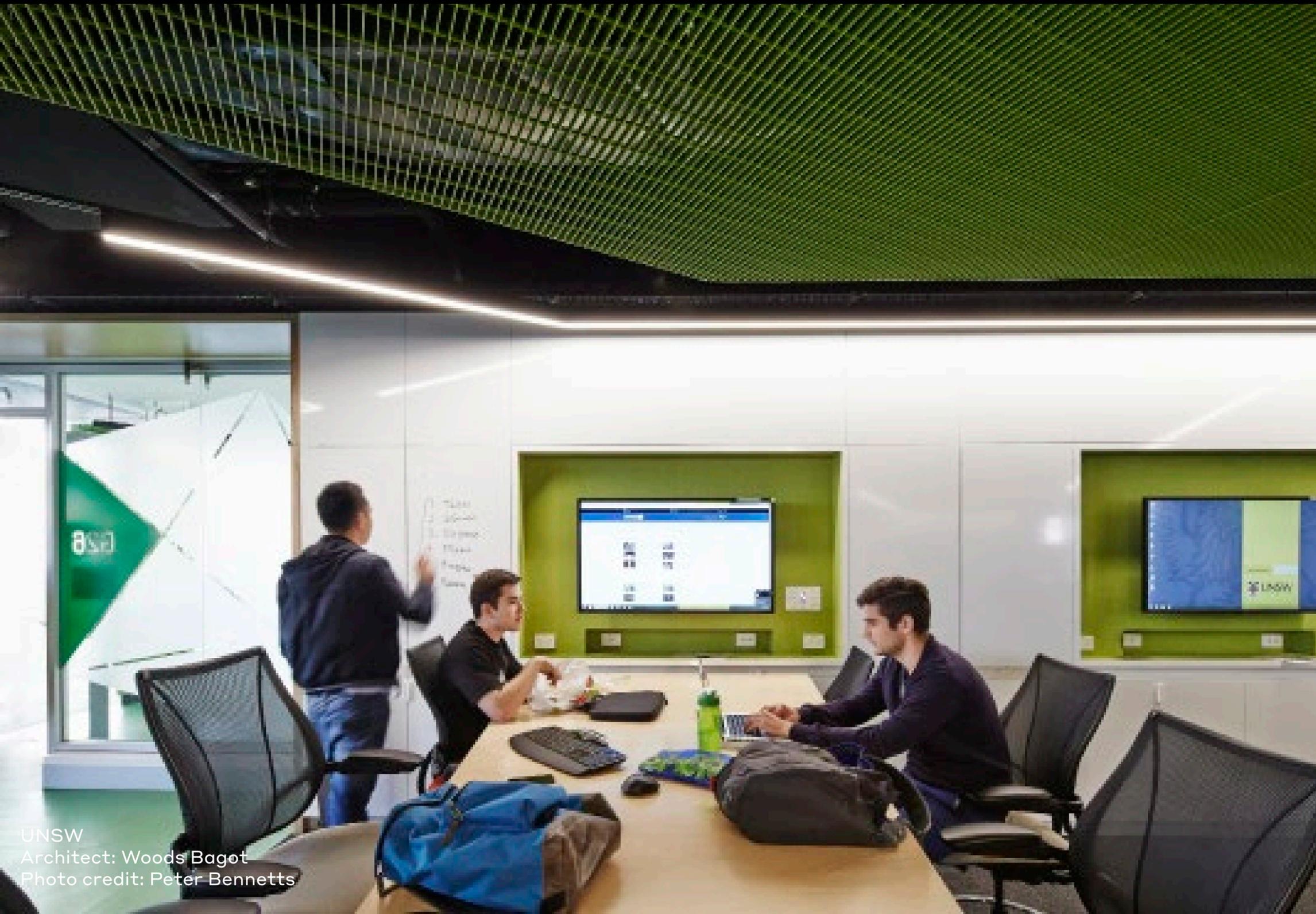
4. ...promotes student activity and engagement with content



BEHAVIOURS

- Students engage with the learning content in a variety of ways that may be individual or group-based
- Students utilise learning resources including the available technologies
- Students capture content presented by the teacher and/or the product of interactions with other students
- Student groups equitably access educational technologies

4. ...promotes student activity and engagement with content



SPATIAL CHARACTERISTICS

- Furniture settings enable students to work together individually or in small groups, which may include access to educational technologies and variety of furniture settings
- Access to walls where writeable surfaces, pinboards and/or digital screens can be located, preferably in close proximity to group settings
- The ability to download content to be shared using a variety of educational technologies (on active walls), including student-owned devices
- Multiple sets of technologies: one per group

5. ...is contextualised & relevant; teachers have an awareness of student prior learning



BEHAVIOURS

- The teacher adapts their teaching approach in response to different student cohorts based upon their prior learning experiences
- Students undertake learning activities that are relevant to them and their learning context
- Students access resources relevant to their needs

5. ...is contextualised & relevant; teachers have an awareness of student prior learning



SPATIAL CHARACTERISTICS

- Versatile technologies support the teacher spontaneously using alternative internet-based resources or accessing writeable surfaces or conducting a whole of class discussion
- Access to all features of the room, including furniture settings, active walls, active floor and educational technologies
- Access to walls where writeable surfaces, pinboards and/or digital screens can be located, preferably in close proximity to group settings

6. ...involves the teacher providing effective and timely feedback to students



BEHAVIOURS

- The teacher visually scans the room to monitor students, evaluate progress and effectively identify students who may need assistance
- The teachers meets individually with students to provide direct feedback
- Student groups display the product of their interactions and discussions for the teacher and other students to see
- Students present their work to the teacher and the entire class for feedback

6. ...involves the teacher providing effective and timely feedback to students



SPATIAL CHARACTERISTICS

- Visibility of active walls where digital screens, writeable surfaces and/or pinboards are located, enabling the teacher to view progress from a distance
- Space for the teacher to access and talk to individuals and small groups of students
- Wall space for students to write-up ideas and summaries of interactions which can be viewed around the room by the teacher or other students
- Good sightlines between groups

Summary of Spatial Characteristics:

Spacious

Group Settings
(~6P)

Active
Surfaces

Mobile
Furniture

Accessible
Technologies

2

The Effective Teaching & Learning Evaluation and Design Tool

Turning Behaviours into *Possibility Statements*

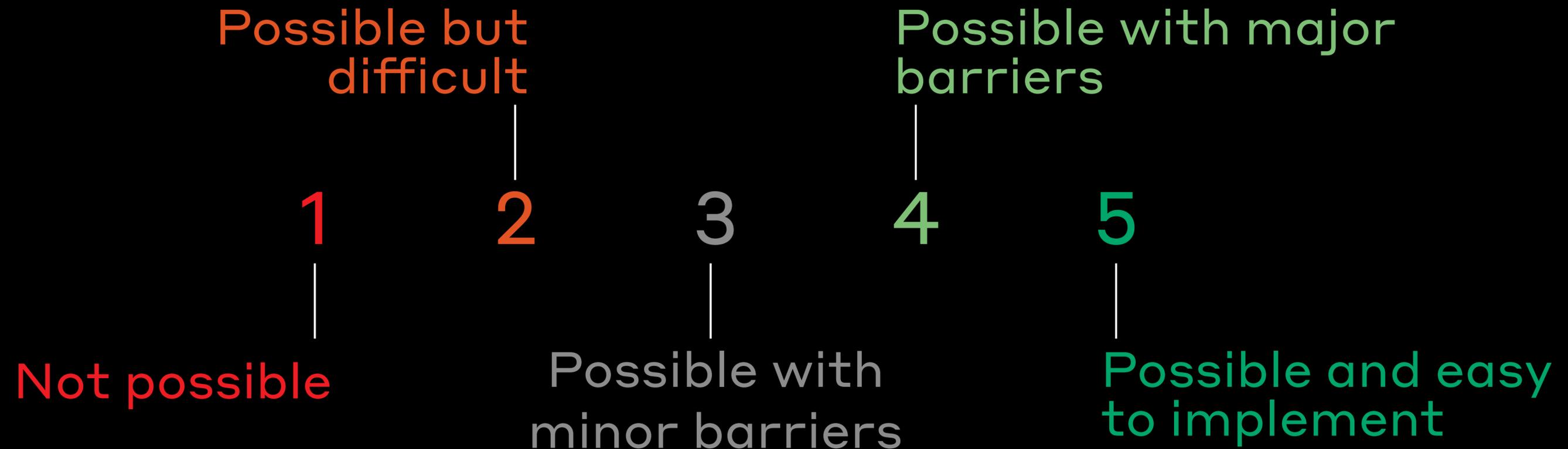
EFFECTIVE TEACHING & LEARNING...	BEHAVIOUR	POSSIBILITY STATEMENT
...encourages the teacher to understand the student's perspective and build meaningful relationships with students	The teacher to move around the room and access all student equally and equitably.	<u>It is possible</u> for the teacher to move around the room easily and access all students equally and equitably.
	The teacher is able to engage with students individually, in small groups or as a whole cohort.	<u>It is possible</u> for the teacher to engage with students individually.
		<u>It is possible</u> for the teacher to engage with small groups of students. <u>It is possible</u> for the teacher to engage with the whole cohort.
	The teacher and students to access the same educational technologies	<u>It is possible</u> for the teacher and students to access the same educational technologies (such as digital screens).

POSSIBILITY STATEMENTS	CATEGORY
1. It is possible for the teacher to move around the room easily and access all students equally and equitably. It is possible for the teacher to engage with students individually. It is possible for the teacher to engage with small groups of students. It is possible for the teacher to engage with the whole cohort. It is possible for the teacher and students to access the same educational technologies (such as digital screens)	FURNITURE
	ENGAGEMENT
	ENGAGEMENT
	ENGAGEMENT
	TECHNOLOGY
2. It is possible for students to interact at a ‘personal’ or ‘social’ distance as tasks are being established. It is possible for students to move around to initiate full engagement of tasks at a ‘personal’ or ‘intimate’ distance. It is possible for different students to undertake activities at different levels of engagement and at varying distances, simultaneously in the classroom.	ENGAGEMENT
	ENGAGEMENT
	ENGAGEMENT
3. It is possible for students and teachers to manipulate the physical environment to access appropriate resources and environmental conditions. It is possible for students to work at their own pace during class. It is possible for students to undertake focused tasks during class. It is possible for students to engage in different activities at the same time.	FURNITURE
	PEDAGOGY
	PEDAGOGY
	PEDAGOGY
4. It is possible for students to conduct collaborative activities. It is possible to easily move the tables and chairs around It is possible for students to utilise vacant floor space for learning activities (active floor). It is possible for students to utilise learning resources including the available technologies, e.g. whiteboard, digital screen, document camera, internet, computer/tablet, etc It is possible for students to capture content presented by the teacher and/or the product of interactions with other students. It is possible for student groups to equitably access educational technologies	FURNITURE
	FURNITURE
	PEDAGOGY
	TECHNOLOGY
	TECHNOLOGY
	TECHNOLOGY
5. It is possible for the teacher to adapt their teaching approach in response to different student cohorts based upon their prior learning experiences. It is possible for students to undertake learning activities that are relevant to them and their learning context. It is possible for students to access resources relevant to their needs.	PEDAGOGY
	PEDAGOGY
	TECHNOLOGY
6. It is possible for the teacher to visually scan the room to monitor students, evaluate progress and effectively identify students who may need assistance. It is possible for the teacher to meet individually and/or privately with students to provide direct feedback. It is possible for student groups to display the product of their interactions and discussion for the teacher and other students to see. It is possible for students to present their work to the teacher and the entire class for feedback.	PEDAGOGY
	FURNITURE
	ENGAGEMENT
	PEDAGOGY

NO.	POSSIBILITY STATEMENTS BY CATEGORY
	Furniture
1.	It is possible for the teacher to move around the room easily and access all students equally and equitably.
2.	It is possible for students and teachers to manipulate the physical environment to access appropriate resources and environmental conditions.
3.	It is possible for students to conduct collaborative activities.
4.	It is possible to easily move the tables and chairs around
5.	It is possible for the teacher to meet individually and/or privately with students to provide direct feedback.
	Engagement
6.	It is possible for the teacher to engage with students individually.
7.	It is possible for the teacher to engage with small groups of students.
8.	It is possible for the teacher to engage with the whole cohort.
9.	It is possible for students to interact at a 'personal' or 'social' distance as tasks are being established.
10.	It is possible for students to move around to initiate full engagement of tasks at a 'personal' or 'intimate' distance.
11.	It is possible for different students to undertake activities at different levels of engagement and at varying distances, simultaneously in the classroom.
12.	It is possible for student groups to display the product of their interactions and discussion for the teacher and other students to see.
	Technology
13.	It is possible for the teacher and students to access the same educational technologies (such as digital screens)
14.	It is possible for students to utilise learning resources including the available technologies, e.g. whiteboard, digital screen, document camera, internet, computer/tablet, etc
15.	It is possible for students to capture content presented by the teacher and/or the product of interactions with other students.
16.	It is possible for student groups to equitably access educational technologies
17.	It is possible for students to access resources relevant to their needs.
	Pedagogy
18.	It is possible for students to work at their own pace during class.
19.	It is possible for students to undertake focused tasks during class.
20.	It is possible for students to engage in different activities at the same time.
21.	It is possible for students to utilise vacant floor space for learning activities (active floor).
22.	It is possible for the teacher to adapt their teaching approach in response to different student cohorts based upon their prior learning experiences.
23.	It is possible for students to undertake learning activities that are relevant to them and their learning context.
24.	It is possible for the teacher to visually scan the room to monitor students, evaluate progress and effectively identify students who may need assistance.
25.	It is possible for students to present their work to the teacher and the entire class for feedback.

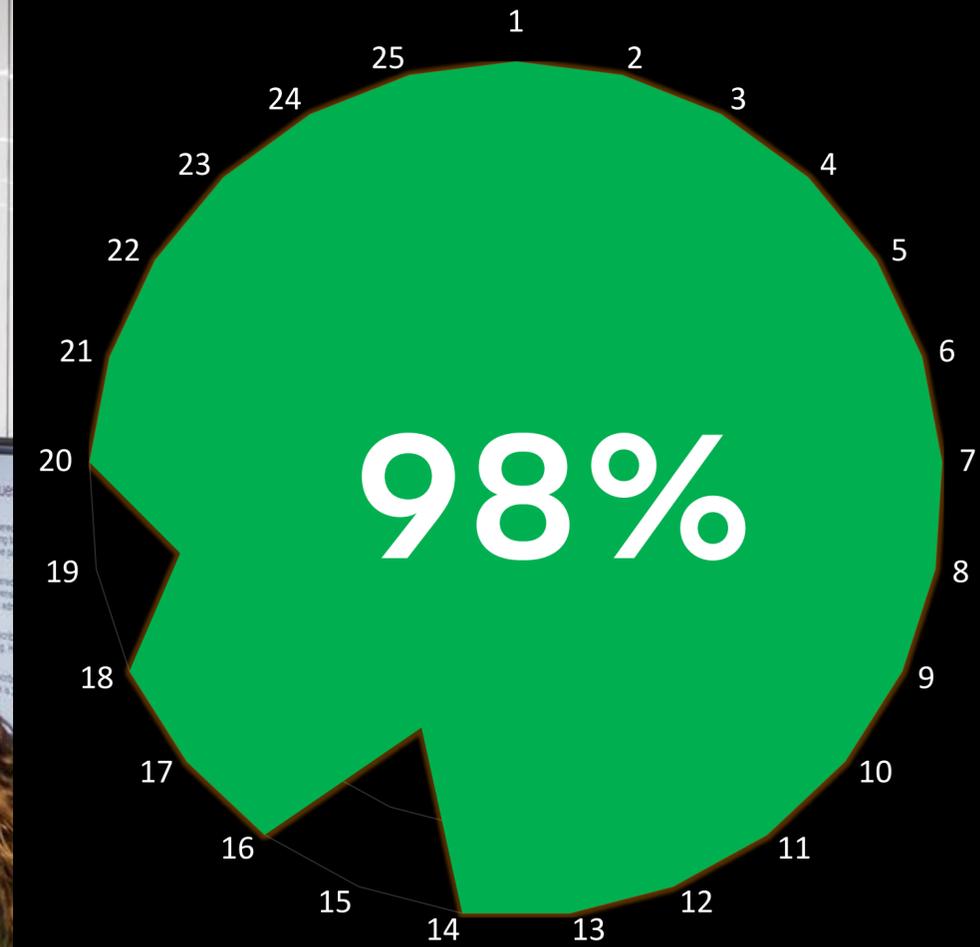
Evaluation Tool

Rating System for each Possibility Statement

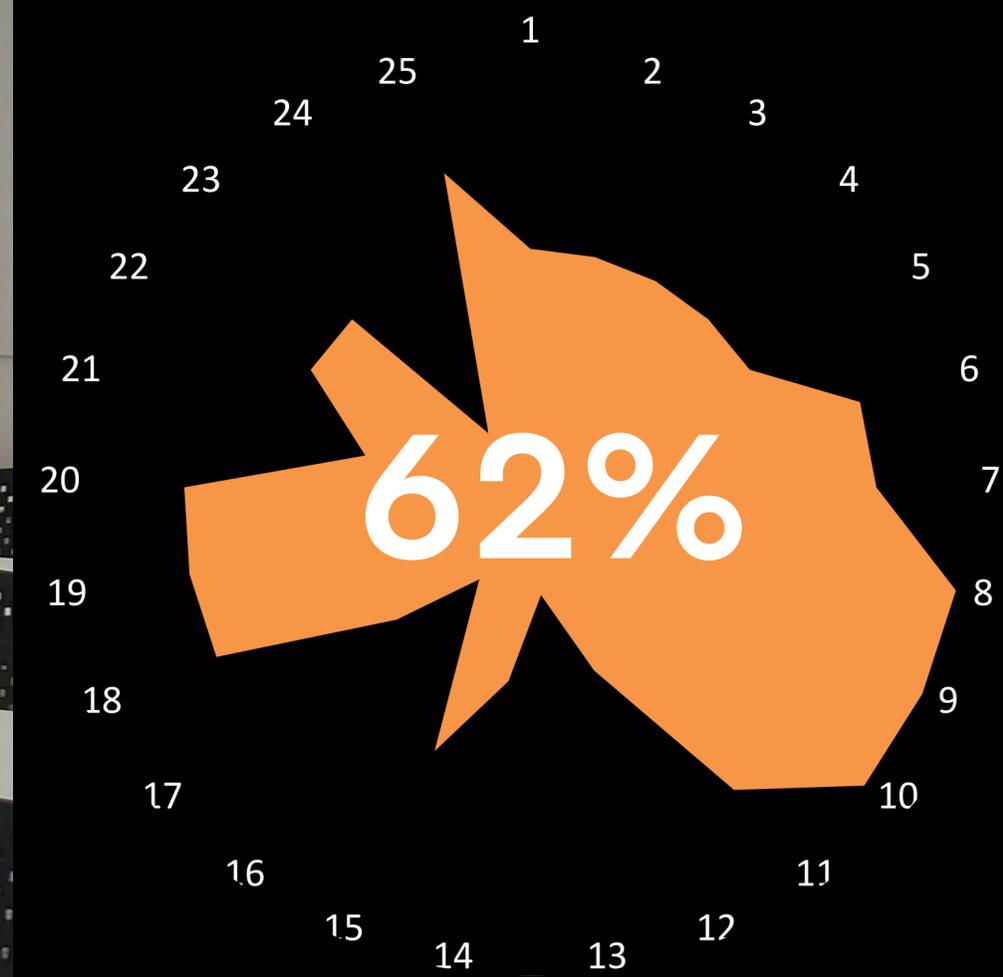


Maximum score of 125 points, expressed as a % efficacy rating

Active Classroom



Tutorial / Seminar Room



Lecture Theatre



Design Tool



QUESTIONS TO CONSIDER:

Is the classroom spacious?

Can students easily move around the room?

Can students collaborate?

Can students communicate in different ways?

Can students access technologies?

Can students share content?

Can activities occur asynchronously?

Can the teacher observe student's work?



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Is the classroom spacious?

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3

The Benefits of Active Learning

Benefits of Active Classrooms

Engaging experience: better for students

Teachers have more meaningful contact with students

Students develop soft skills

Reconfigurable and flexible

Easier to manage social distancing



“It’s much more entertaining and interesting. And I find that the knowledge sticks a bit easier compared to sitting through a two hour lecture and then going home and having to do the tutorial and having to essentially re-learn the content because you weren’t paying attention in the lecture. This is a much more efficient approach and it makes more for collaborative learning.”
(Male student)

One team can learn from another team sometimes faster than they can learn from me having to convey the information from one team to another. So it takes me out of the equation.

It helps you focus on what you want students to learn and lets you throw out 90% of your slides.”
(Teacher)

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Thank you for your interest!

Contact details

E: jo.dane@era-co.com

M: +61 417 000 015

