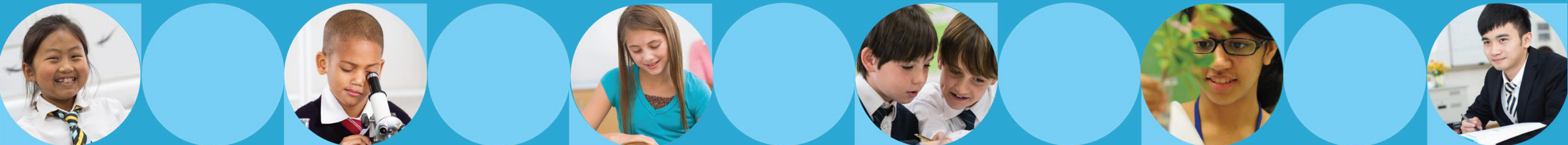


Enhancing student performance by maximising the accessibility of assessment design

Debbie Howes
Deputy Director, Assessment Standards and Quality

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In this session, we will explore:

- ▶ What we mean by ‘accessibility’ with regard to task design and why this is important
- ▶ Design features which can present barriers to engagement and barriers to learning
- ▶ Design principles which maximise the accessibility of tasks

A chance for some introductions

- ▶ Who do we have in the session today?
- ▶ What is your role?
- ▶ Why do you think that this session will be helpful for you?

Some core considerations when designing any task

All tasks ideally should:

- ▶ align to the learning outcomes
- ▶ provide opportunity for demonstrating progress, knowledge, skills and understanding
- ▶ facilitate the practice of core skills and the application of concepts to new examples
- ▶ align to future assessment
- ▶ be meaningful
- ▶ be engaging
- ▶ offer a variety of approaches
- ▶ be as clear and **accessible** as possible.

Start by thinking about:

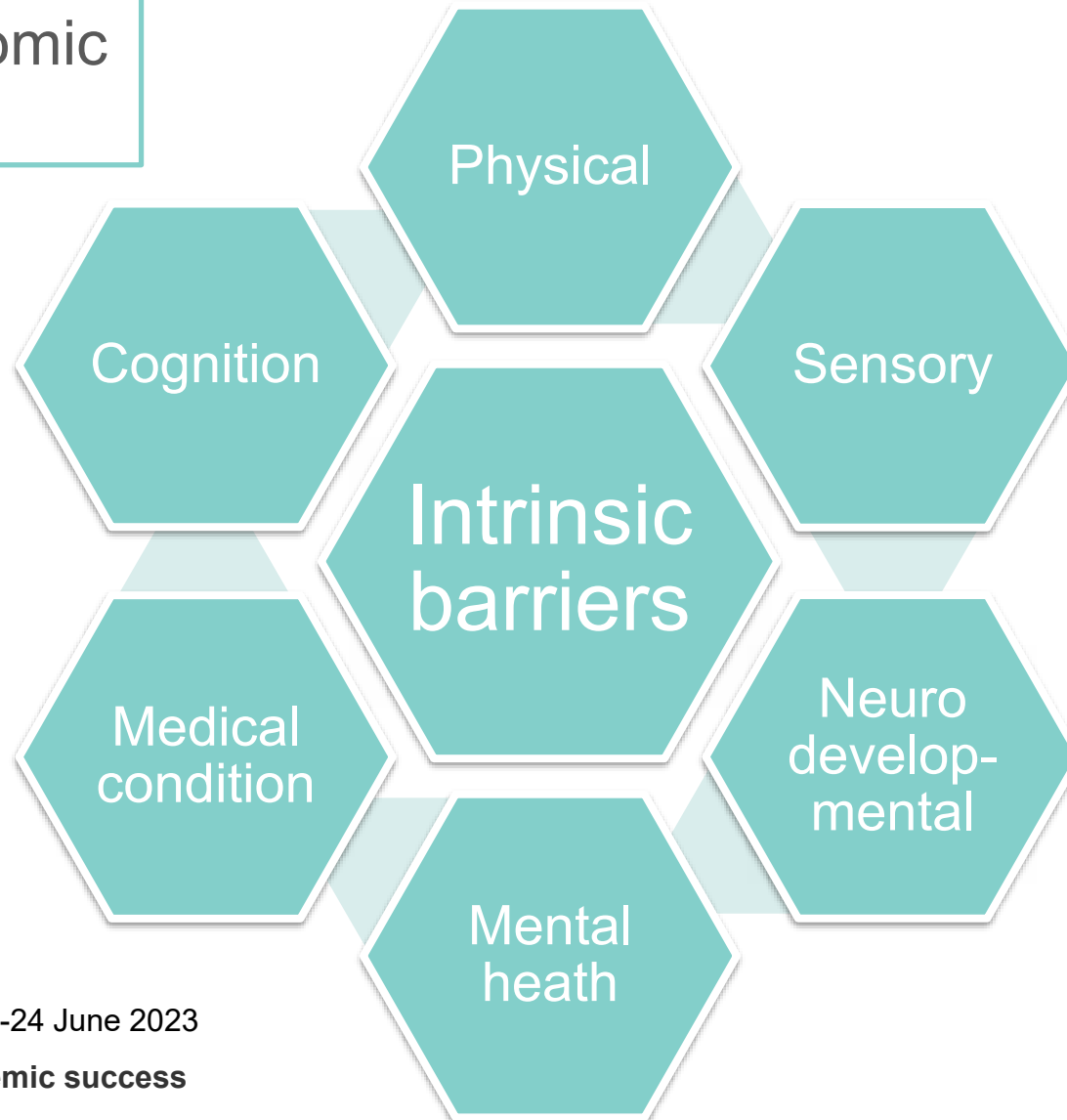
- ▶ Why do some students struggle to access tasks?
- ▶ What factors could present a barrier to learning?

Barriers which can impact on learning

Socio-economic
barriers

Cultural
barriers

Environmental
barriers



Language
barriers

Motivational
barriers

From a TASK perspective

maximising accessibility ...

...minimises 'construct
irrelevance'

...is not about
making tasks
easier

...is a core part of the
overarching assessment
principles of fairness and
validity

...provides a more
accurate picture of
student learning and
helps teachers to plan
next steps

From a LEARNER perspective ...

maximising accessibility ...

...provides
the 'can do'
factor

...contributes to a positive
learning environment

...promotes
participation

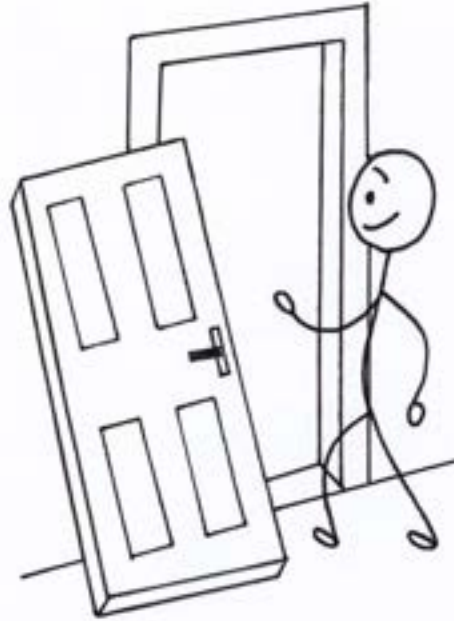
...enhances
active
engagement

...impacts
positively on
outcomes

Maximising the accessibility of Cambridge qualifications



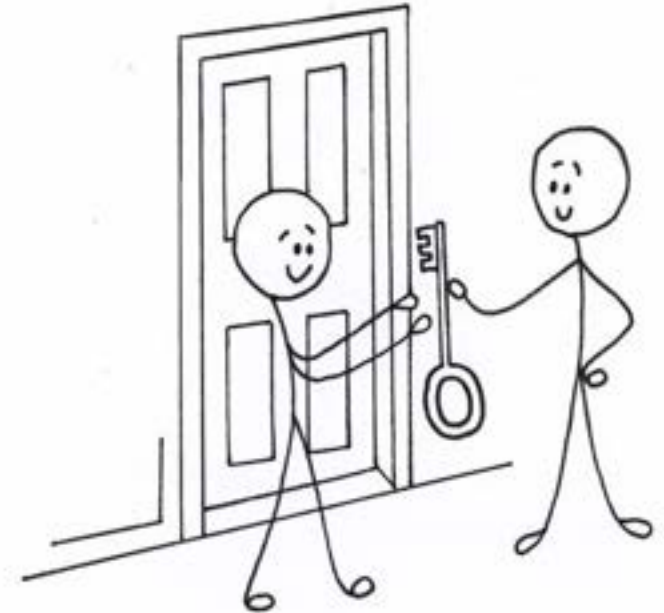
reflect



remove



reduce



rethink

SOURCE: Neurodiversity and Education (Ellis, Kirby & Osborne, 2023)

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Accessibility principles in action

Language

Layout

Visuals

Contexts

Task design features to consider from an accessibility perspective

▶ Language of the assessment

- ▶ Use simple sentences - i.e. avoid subclauses
- ▶ Use active voice rather than passive
- ▶ Use common vocabulary unless subject specific
- ▶ Avoid metaphors, idioms and negative clauses
- ▶ Separate factual information from the question
- ▶ Use chronological order or place most important sentence first where there are no sequential actions

Example in practice: why are these examples not ideal?

The regime was frowned upon by the government.

Given that a stone takes 1.8 s to fall through 16 m, how long does it take to fall through 25 m?

Task design features to consider from an accessibility perspective

▶ Layout

- ▶ Use section headings or lists to break up blocks of text
- ▶ Be mindful of white space and of the juxtaposition between blocks of texts and visuals
- ▶ Use consistent text alignment
- ▶ Use consistent font style and size
- ▶ Avoid page turns

Example in practice: why is this example not ideal?

Some polluting gases are removed from car exhaust fumes using a catalytic converter. Platinum or palladium can be used as the catalyst. The reactions are faster when platinum is the catalyst than they are when palladium is the catalyst. **Which statements are correct?**

- 1 Platinum acts as a heterogeneous catalyst in these reactions.
- 2 *The palladium-catalysed reactions have higher activation energies than the platinum-catalysed reactions.*
- 3 The platinum-catalysed reactions are more exothermic than the palladium-catalysed reactions.

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Task design features to consider from an accessibility perspective

▶ Visuals

- ▶ Consider whether the visual is central, useful or just aesthetic
- ▶ Clarity is key – clear diagrams or line drawings as opposed to photographs or 3D images
- ▶ Use easily distinguishable key features in photographs
- ▶ Ensure colour and greyscale contrast ratios are appropriate
- ▶ Particular considerations required for graphs, maps and scale/vectored diagrams
- ▶ Consider how students with visual impairments may access the task

Example in practice: why is this example not ideal?

(a) The photograph shows a table tennis player.



Describe how each of the following stages of information processing affect the movements made by the player:

input

.....

decision making

.....

feedback.

.....

[3]

Task design features to particularly consider from an accessibility perspective

▶ Contexts

- ▶ Use contexts which are relevant to and support what the students are learning
- ▶ Use contexts which are equally familiar to all students
- ▶ Avoid contexts which could be interpreted differently by different groups of students

Example in practice: why is this example not ideal?

A theatre has the capacity to seat people across two levels: the circle, and the stalls.

The ratio of the number of seats in the circle to a number of seats in the stalls is 2:5

Last Friday, the audience occupied all the 528 seats in the circle and $\frac{2}{3}$ of the seats in the stalls.

What is the percentage of occupancy of the theatre last Friday? Give 2 significant figures.

Principles into practice:

How would you improve the accessibility of this task?

- (c) (i) What do the hazard warning symbols, **A** and **B**, on this tube of glue mean? Choose from the box below and write your answers on the lines.

corrosive explosive flammable toxic radioactive



1 mark

1 mark

Principles into practice: suggested improvement

(c) (i) A tube of glue has two hazard warning symbols, A and B. What do the hazard warning symbols, A and B below, mean?



Choose from the box below and write your answers on the lines. [2 marks]

corrosive explosive flammable toxic radioactive

Principles into practice:

How would you improve the accessibility of this task?

Outline the physical and vocal qualities that you would look for in the actor playing Creon, and explain how you would direct the actor in his first appearance in the play so that he effectively demonstrates his authority to your audience.

You are directing the actor playing Creon. It is the actor's first appearance in the play and you want him to show his authority to the audience.

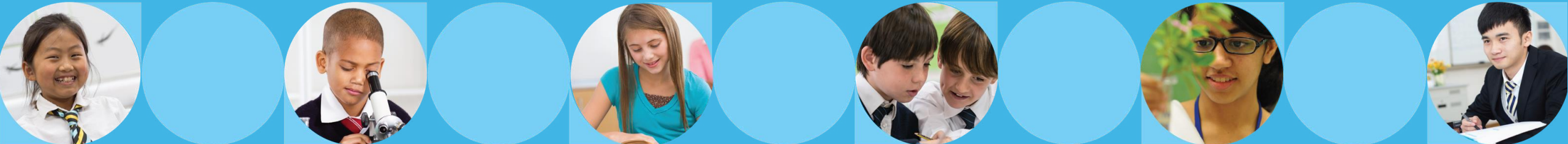
- a) Describe the physical and vocal qualities that you would look for in this actor
- b) Explain how you would direct this actor

Principles into practice:

How would you improve the accessibility of this task?

Following a tremendous Atlantic storm, during which your ship capsizes, you are marooned on a desert island. Whilst exploring your new terrain, you managed to catch some fish for dinner. You enjoy cooking so, in an effort to improve the flavour of your self-caught meal, you have decided that you would like some salt to put on your fish. In order to do this, you are going to try to apply your Chemistry skills to try and separate some salt from the sea water that surrounds your island. How do you intend on doing this?

Final thoughts



What are your key takeaways from this session?



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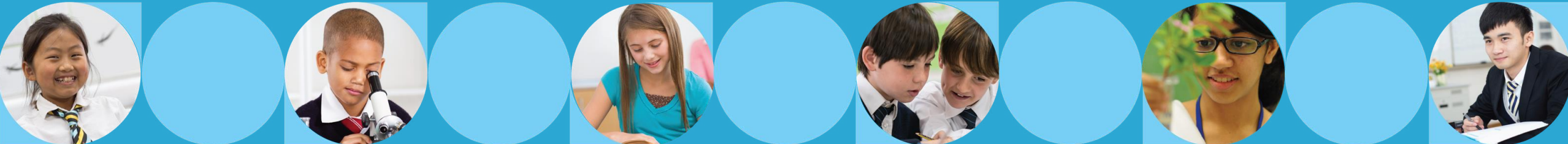
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Thank you
Any questions?



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