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Cambridge Schools Conference, Orlando
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Neurodiversity and education

Making teaching, learning and assessment more inclusive

Paul Ellis
Head of Teaching & Learning

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Objectives

1. What is inclusive education?
2. What is neurodiversity?
3. Inclusive education in practice

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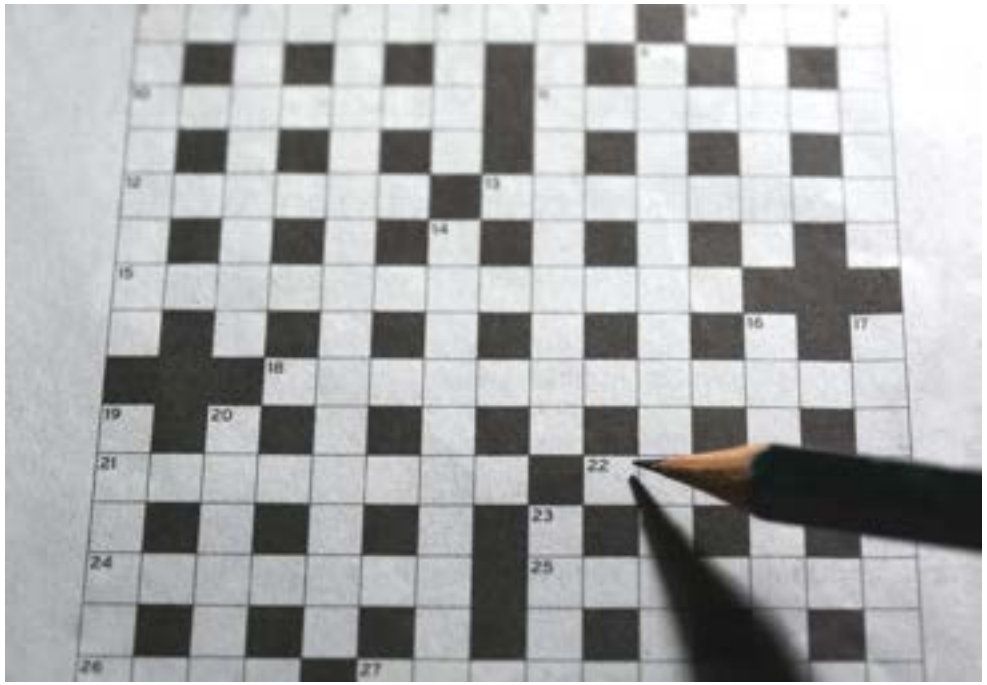
Part One

What is inclusive education?

Activity 1

- How would you define ‘inclusive education’?



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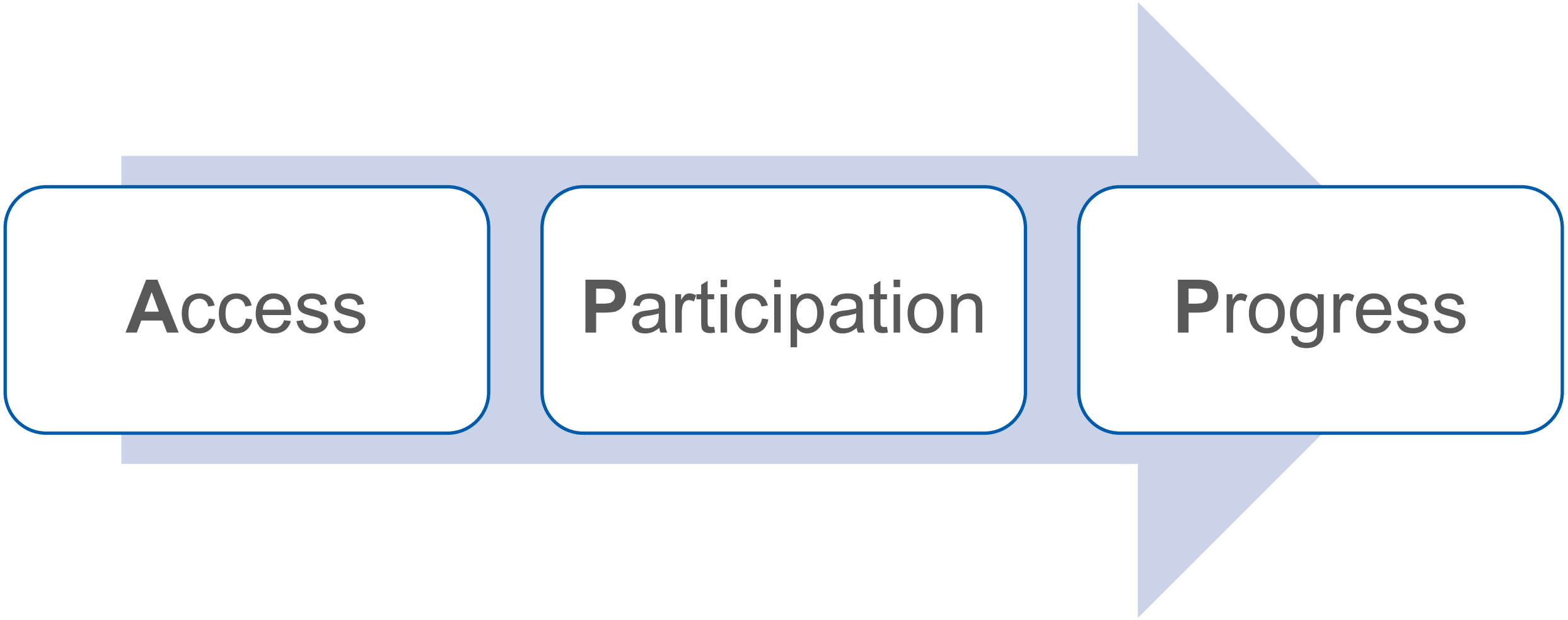
Inclusive education: a definition

- Teaching that engages students in learning which is meaningful, relevant and accessible to all.
- Individual difference is a source of diversity, which can enrich the lives and learning of other people.

‘There’s an APP for that’



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Common conditions

Dyscalculia

Dyspraxia

Dyslexia

Attention Deficit Hyperactivity Disorder (ADHD)

Developmental Language Disorder (DLD)

Autism Spectrum Condition (ASC)

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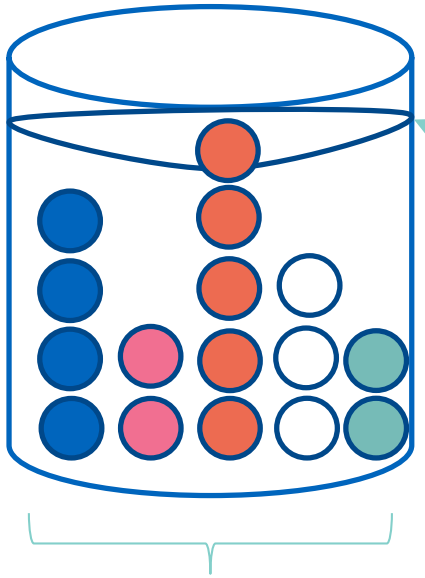
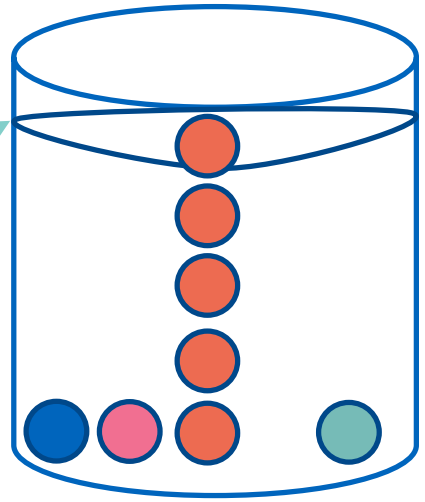
‘Balls in buckets’



Number of balls = severity of challenge (some balls are easier to see than others!)

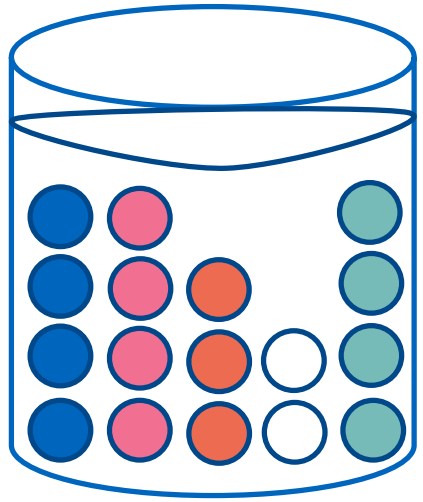
Threshold for diagnosis



The system works well for people with **one area** of challenge…

Dyslexia! Here are some reading strategies.

Your behaviour is disrupting the class – perhaps removing you is the answer?



…but works less well for those with multiple or less identified needs, especially if none reach the threshold for diagnosis.

Amanda Kirby (2018)

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Commonly observable presentations

Behaviour	Concentration and attention	Communication and language	Executive functions
Motor	Mental health	Literacy	Numeracy

Activity 2: ‘Balls in buckets’ – from the few to the many

- In your current teaching or school experience, how many students have come across who may have an **'unidentified' support need**, but don't meet the threshold to access support?

- You may like to consider students who:
  - Face barriers to their learning
  - Demonstrate tendencies that you might associate with one or more specific learning difficulties
  - Experience challenges with their mental health
  - Are high achievers but struggle with perfectionism

- Make a note of this number and be prepared to share this with the group

- How many students have we identified between us?
- What are your initial thoughts on this collective number?

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Part Two

What is neurodiversity? (An alternative approach)

Terminology

Neurodiversity

- The different ways that we all think, move, hear, see, understand, process information and communicate with each other. We are all neurodiverse.

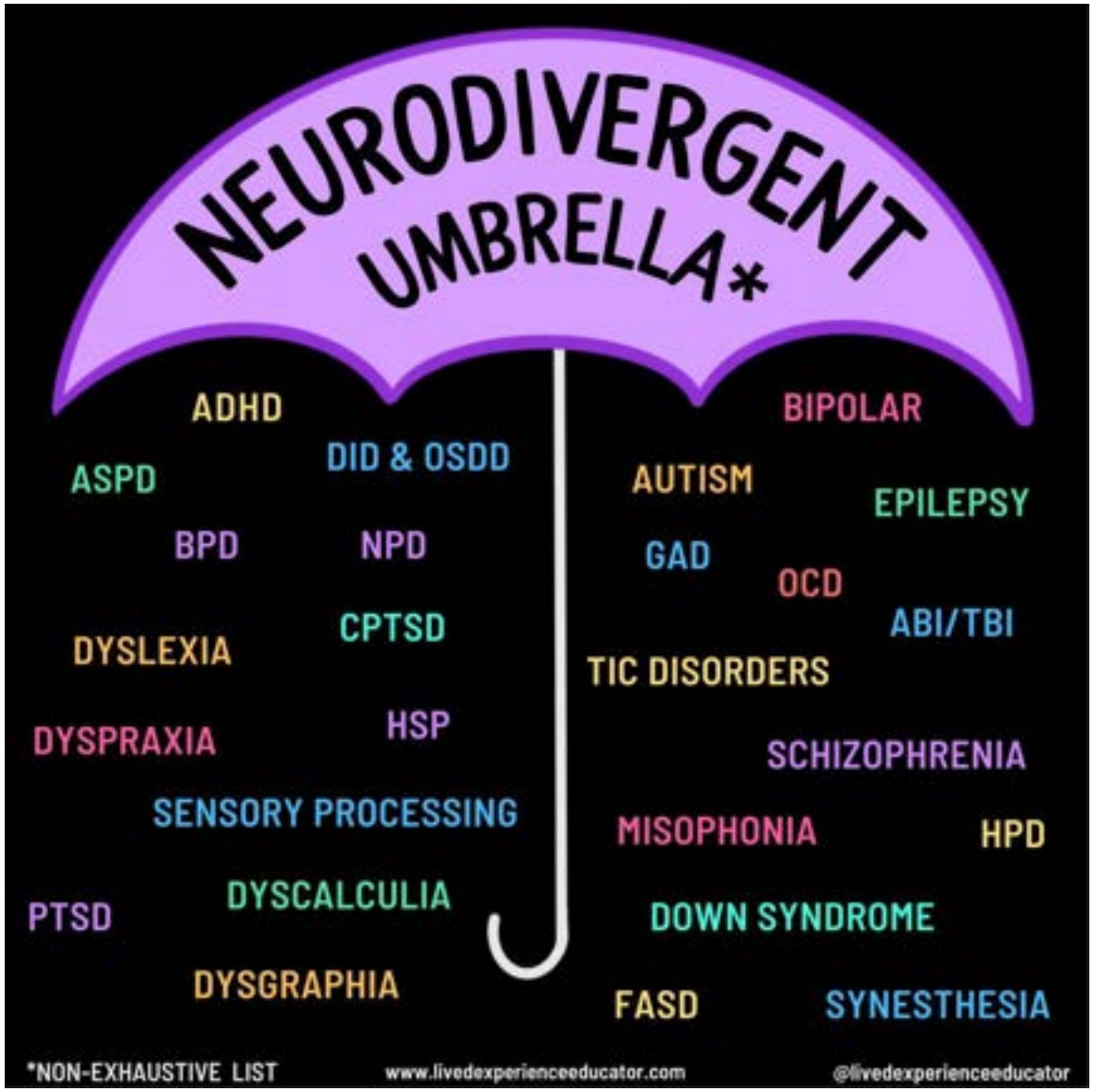
Neurotypical

- The group that thinks, moves, hears, sees, understands and processes information which meets social or cultural norms.

Neurodivergent

- Having or related to a type of brain that is often considered as different from a socially constructed or defined norm.

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



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The importance of neurodiversity

"Neurodiversity may be every bit as crucial for the human race as biodiversity is for life in general.

"Who can say what form of wiring will prove best at any given moment?"

Harvey Blume (*The Atlantic*, 1998)

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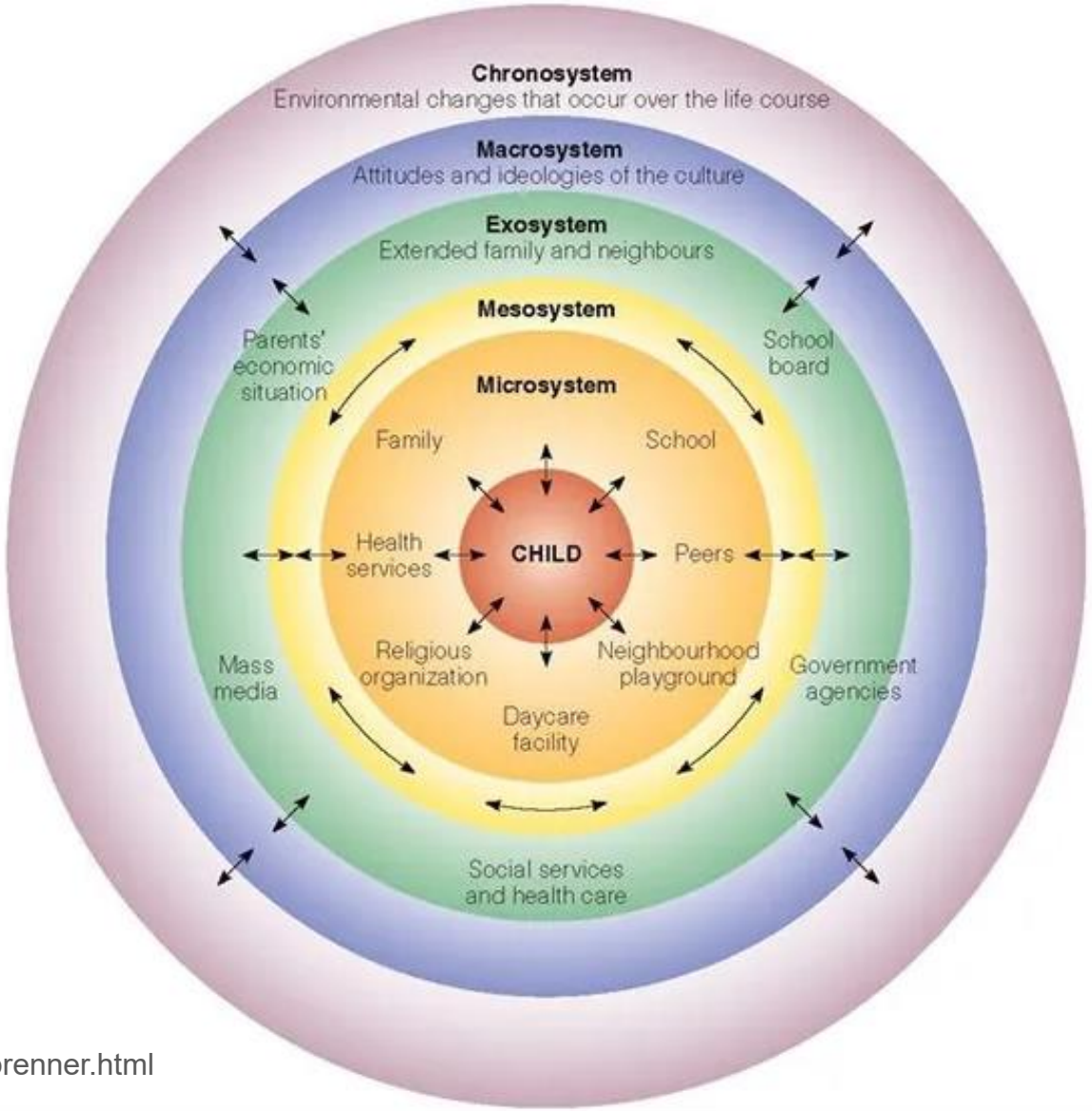
Ecological Systems Theory - Bronfenbrenner



https://www.simplypsychology.org/Bronfenbrenner.html

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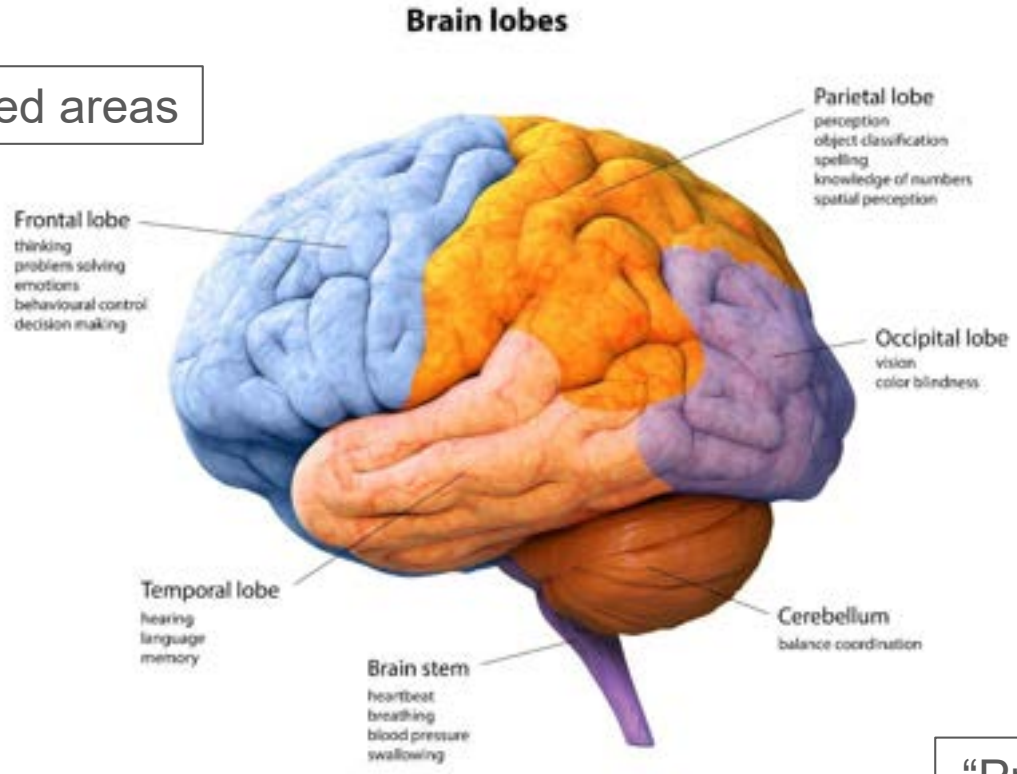
It’s all the same brain

More recently evolved areas



“Primitive” areas

Front of head

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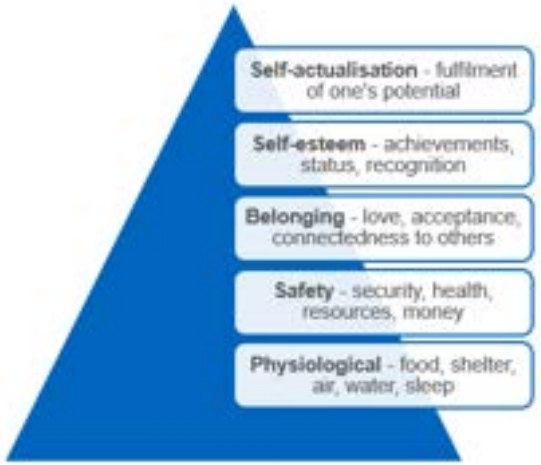
Reposition theories of learning:
‘You can’t Bloom before you can Maslow’



Maslow’s hierarchy

In teaching, "You can't do the Bloom stuff until you take care of the Maslow stuff."

Alan E. Beck

BLOOM’S TAXONOMY

Beck, A. E. (1994). On universities: J. Tuzo Wilson Medal acceptance speech. *Elements: Newsletter of the Canadian Geophysical Union, 12,* 7–9.

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Performance = potential *minus* interference

Tim Gallwey (1972)

Activity 3: What interferes with your own 'performance'?*

- Reflect on the types of 'interference' you* have experienced which have potentially undermined or impacted on your ability to thrive
- What 'interferences' (such as illness or additional pressures):

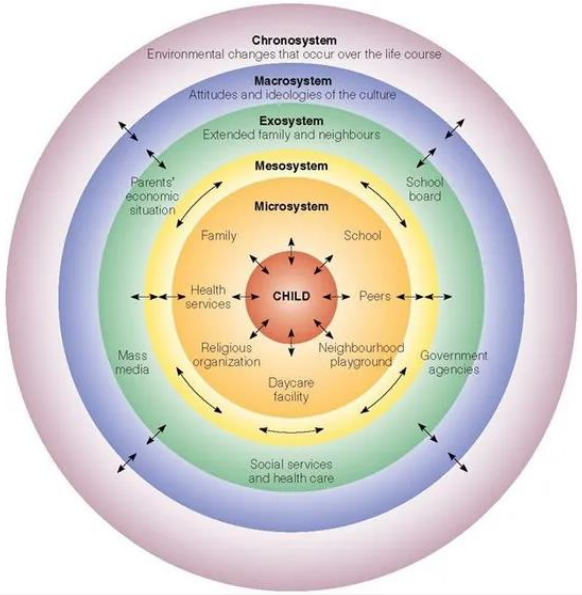
  (a) Do you* currently experience?

  (b) Have you* had to manage in the past?

- Reflect on:

  (a) The extent to which these 'interferences' have impacted on different areas of your* life such as your* own learning, work, family or community involvement

  (b) How the interferences and the impact have changed over time



If you feel more comfortable doing so, think instead about someone you know

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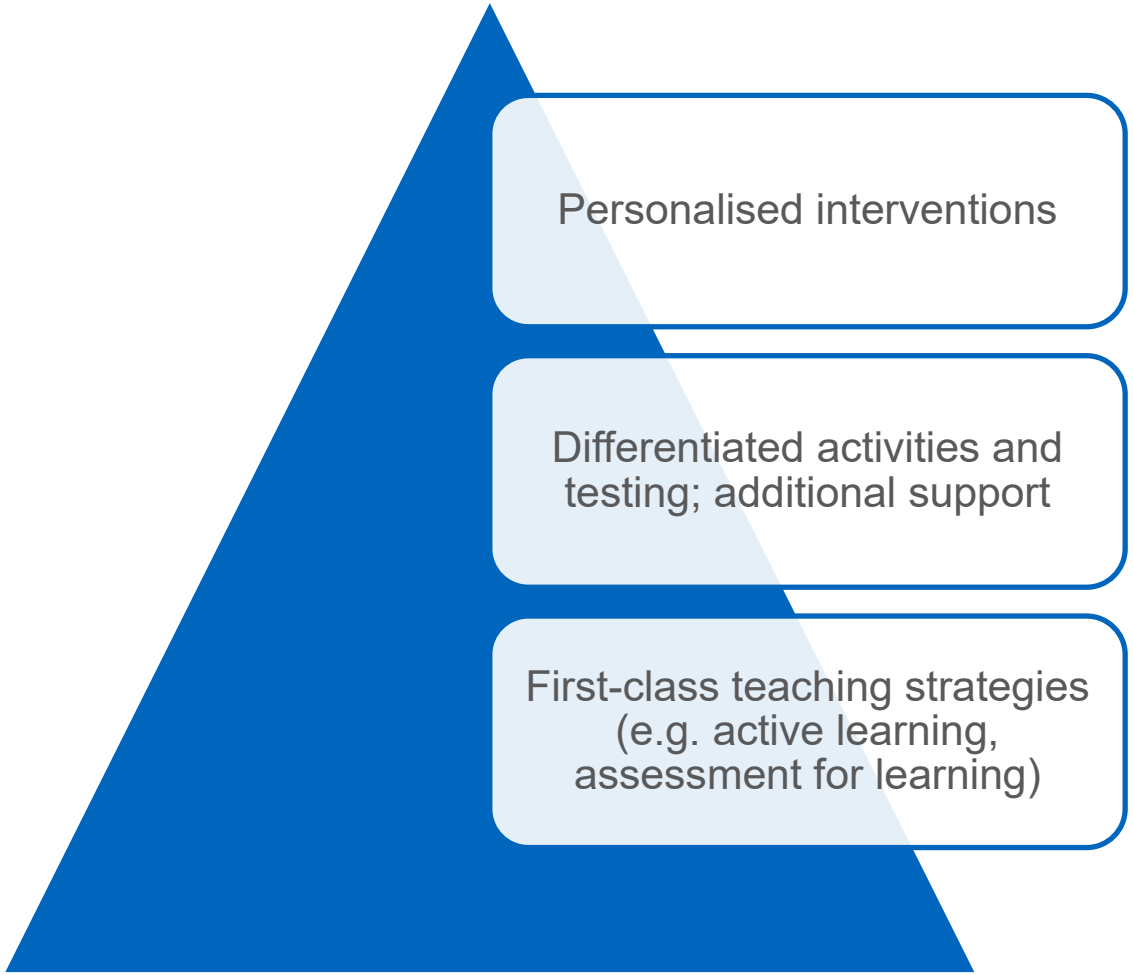
Part Three

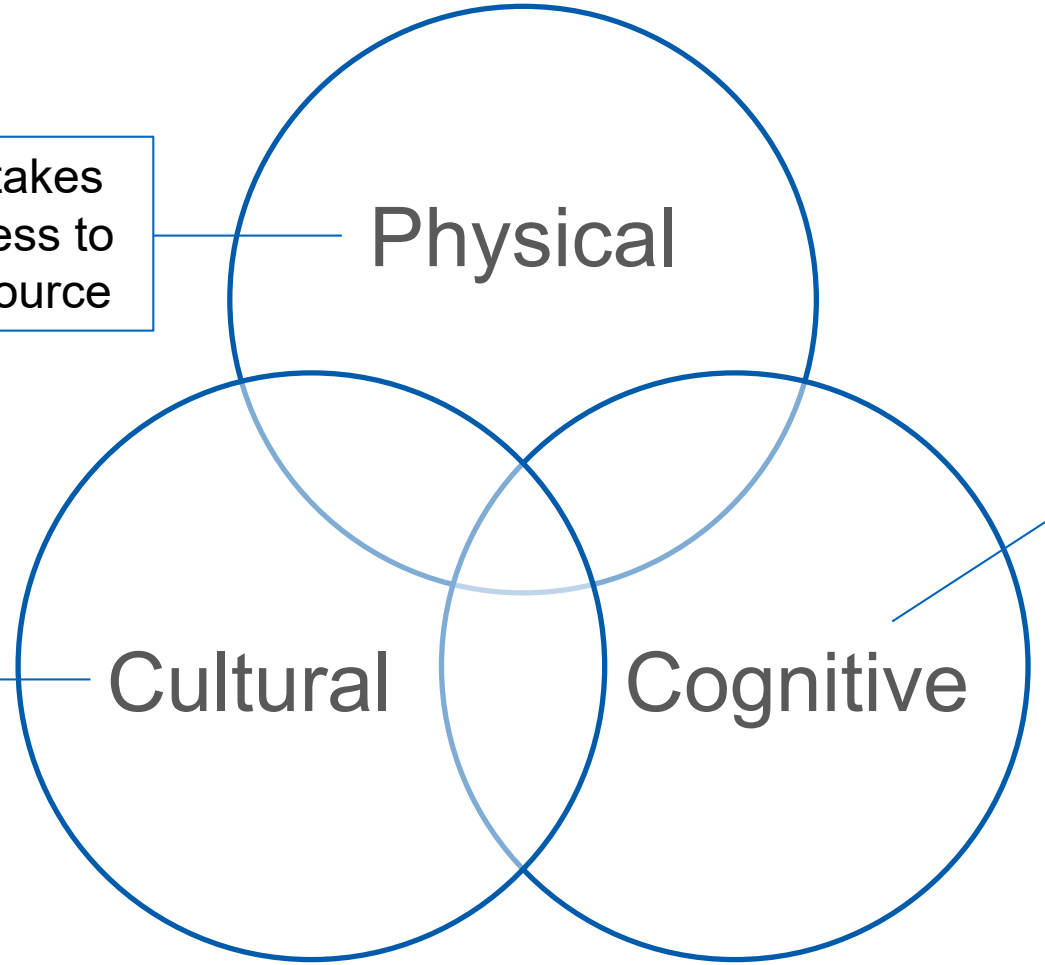
Inclusive education in practice

Levels of learning and teaching



‘Patterns beyond labels’

Where learning takes place – e.g. access to a building or resource



How students learn and how they demonstrate their learning

What students are asked to learn and the clarity of instructions we give them

Eaton & Osborne (2019)

Activity 4: Patterns beyond labels

1. Using the lenses template and the pack of barriers to learning provided:
   a) Identify which lens/lenses the barriers or interferences fit(s) under
   b) Discuss whether each barrier
      - Sits neatly under a particular lens, or
      - Relates to more than one lens

2. Can you think of other types of barrier or interference your students have commonly experienced?
   - Make a note of these on the blank cards provided in the pack

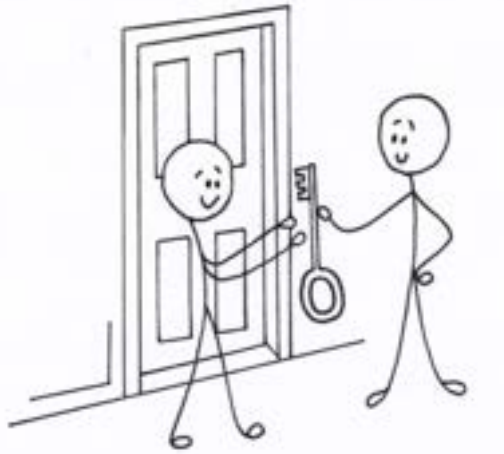
3. As a team, agree where each 'barrier' should be placed on the lenses template and identify a spokesperson to feed this back to the whole group

‘The 3 (or 4) Rs’

Reflect

Remove

Reduce



Rethink

Illustration by Rebecca Hurry in
Neurodiversity and Education, Ellis, Kirby & Osborne (2023)

Activity 5: The 3Rs

- Using one of the barriers from the last activity (either one provided or one that your group identified), consider how you can apply the 3 Rs (**Remove, Reduce and Rethink**) to help students

- Note how you could remove, reduce or rethink the barrier you have chosen
- Consider:
  - Interventions that you could make as a teacher at the design or delivery stage
  - Strategies your students might be able to draw upon to support their own learning in the classroom and beyond

Quick wins for teachers

- Make links between learning
- Manage the environment
- Offer choice
- Break down information and tasks
- Provide clear and explicit instructions
- Back up verbal instructions with written ones
- Balance interaction between listening and doing
- Use visual prompts

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Quick wins for schools

Draw on your knowledge and expertise of your students and your local context

Start small with strategies that are easily adaptable; take incremental but sustainable steps

Prioritise professional development in inclusive teaching and learning

Implement whole-school policies that address inclusive education so that colleagues feel supported with a joined-up approach

Evaluate impact so that effective interventions can be scaled up and reproduced in different contexts

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Neurodiverse teachers

- Recruiting
- Onboarding
- Supporting
- Adjusting
  - Classroom
  - Staffroom
  - Staff meetings
  - Preparing lessons
  - Assessing and reporting
- Role-modelling

Activity 6

- What could you do in your own school (or place of work) to support colleagues who are neurodivergent?

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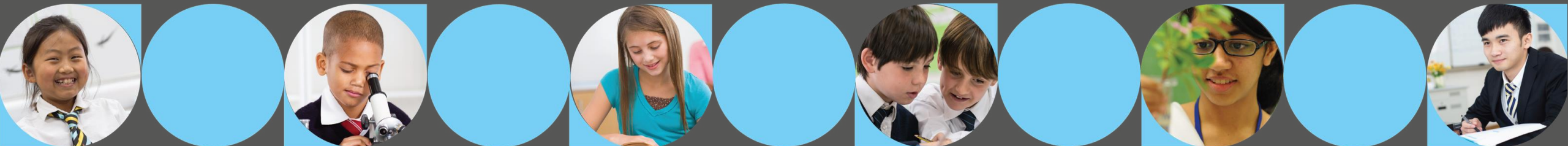
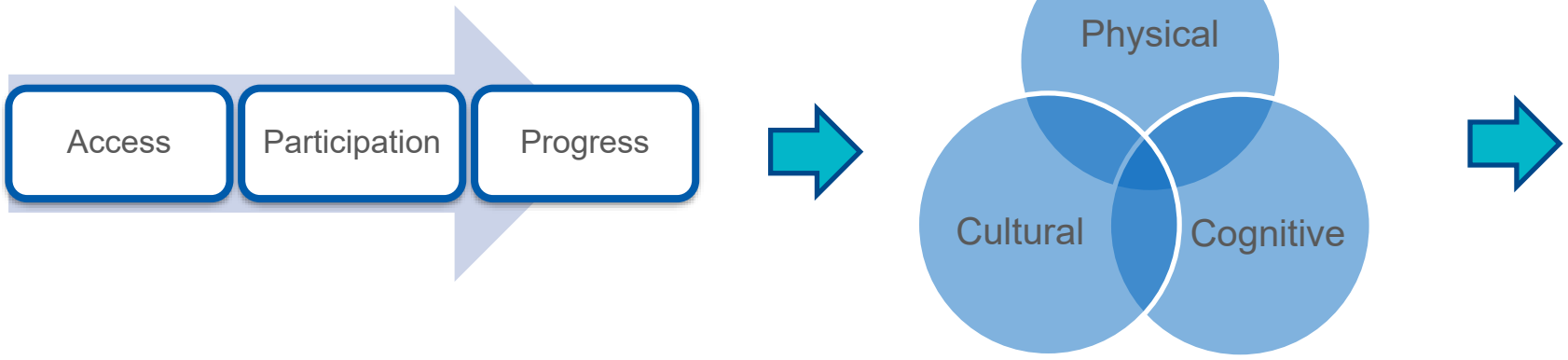
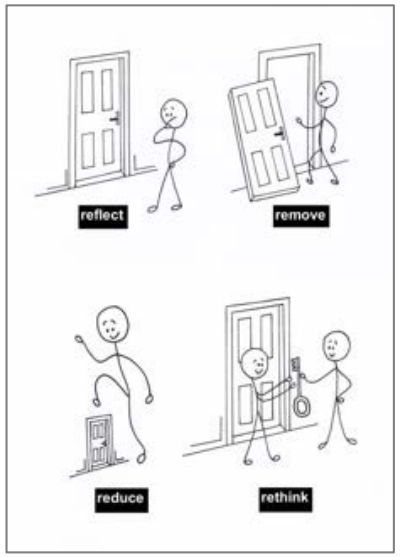


In summary

Neurodiversity and education:
Making teaching, learning and assessment more inclusive

PERFORMANCE =
POTENTIAL *minus* INTERFERENCE





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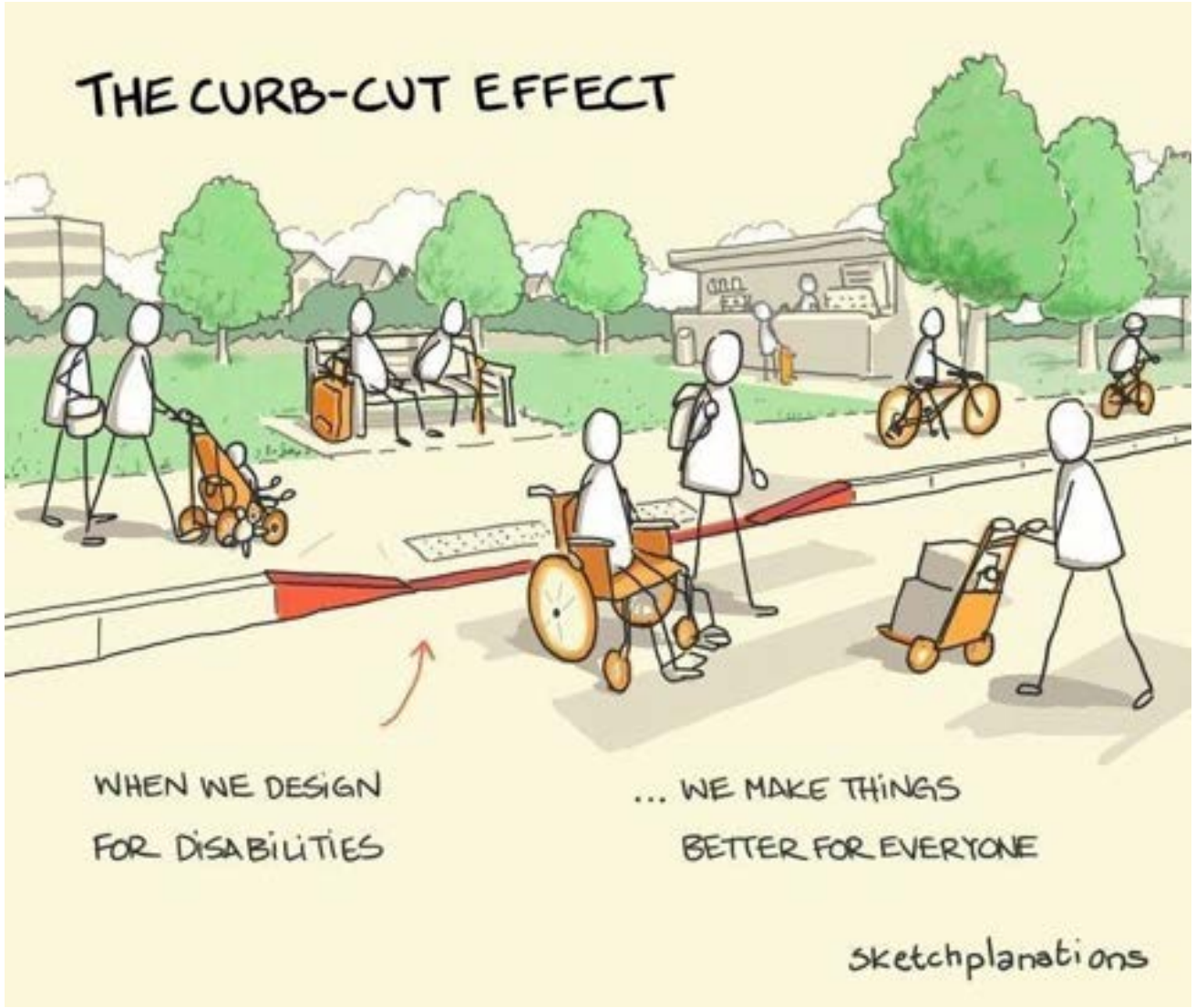

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Resources and next steps

www.cambridgeinternational.org/education-briefs

https://blog.cambridgeinternational.org/top-tips-for-supporting-students-with-send-before-and-during-exams/

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Cambridge Outlook magazine

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Podcasts

1. Defining neurodiversity
2. Embracing neurodiversity

https://brighterthinkingpod.libsyn.com/

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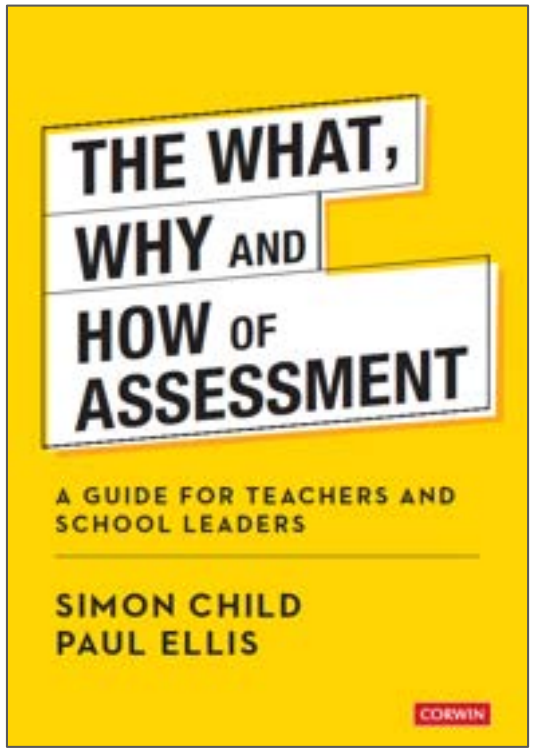
Books



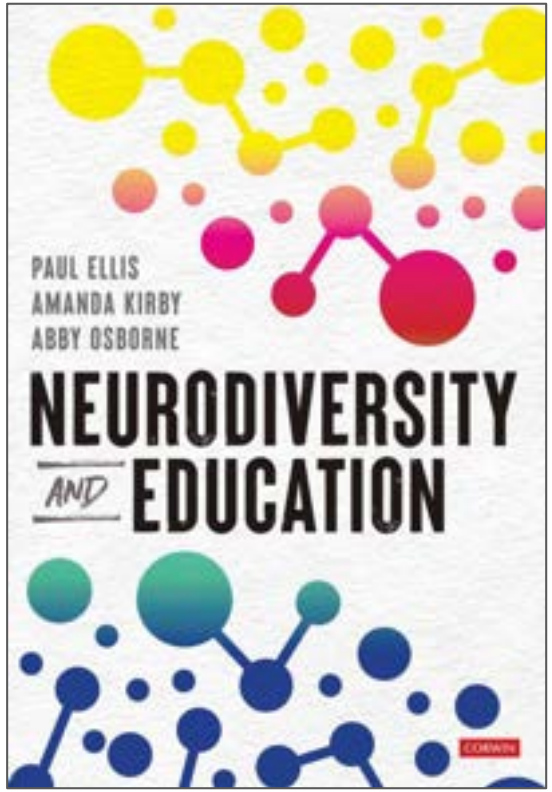
https://uk.sagepub.com/en-gb/eur/the-what-why-and-how-of-assessment/book274787

Chapter 14: **Assessment for All**

In this chapter, you will:

- Learn about the challenges that some students may face when taking assessments
- Learn what assessment organisations do to enable students to access more traditional forms of assessment
- Explore some alternative assessment methodologies, such as designing assessments with inclusivity in mind.

Books



https://uk.sagepub.com/en-gb/eur/neurodiversity-and-education/book281114

Contents:

1. What is neurodiversity?
2. Framing neurodiversity – past and present
3. The 3Ms – Missed, misdiagnosed and misunderstood
4. Mental health and wellbeing
5. Reframing
6. Universal design
7. The inclusive classroom
8. Teaching and learning
9. Assessing neurodiverse learners
10. Neurodiversity in the education workplace

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Thank you

Your feedback

- Please let us know your views on this session
- Scan the QR code and share your feedback with us