

# Vision Impairment Education: 'what matters' and 'what works' in our field

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UNIVERSITY OF  
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SCHOOL OF  
EDUCATION

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Köszönöm a meghívást  
Thank you for the invitation



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# Overview

- Introduction and my context
- **Part 1** – A toolkit for being a QTVI
- **Part 2** – What matters? Exploring what we value as a field
- **Part 3** – What works? Available evidence and why we need QTVIs to be practitioner-researchers
- Concluding thoughts

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# Introduction - VICTAR

- Who we are:
  - VICTAR
  - Department of Disability Inclusion and Special Needs (DISN), School of Education
  - A long record of innovative social and educational research, and offering high quality programmes of study and professional development.
  - Research rated as having “internationally outstanding impact” – UK Research Excellence Framework (REF) 2014 and 2021

<https://www.birmingham.ac.uk/research/victar/index.aspx>

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# Introduction - VICTAR

- What we do:
  - Training: Mandatory Qualification for Teachers of Children and Young People with Vision Impairments (QTVI)
- Research themes and achievements include:
  - International literature reviews of practice
  - Curriculum framework for children and young people with VI (CFVI)
  - Educational outcomes and transitions work
  - Research into literacy – braille, Moon, low vision
  - Employment and preparation for adulthood

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## Introduction – UK context

- Context matters – so it is useful to tell you something about UK's education system (especially England)
  - Population
  - Professionals and educational placement

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## Population

- UK: 1-2 per 1000; 50:20:30 split (VI only; VI + additional difficulty; VI + complex needs);
- 27,000 children 0-25 with VI in the UK
- Arguably consists of different 'sub-populations', e.g.
  - Child 1 (6 years old) – congenitally blind/early braille literacy
  - Child 2 (12 years old) – late onset; deteriorating condition, learning media assessment (LMA)
  - Child 3 (14 years old) – low vision/print literacy/access technology
  - Case 4 (17 years old) – CVI/complex needs/tangible objects

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## Professionals and placements

- Qualified teachers of children and young people with vision impairment – **QTVIs** (mandatory qualification in UK – as per Deaf education and MSI)
  - + **Habilitation Workers** (specialising in mobility and ILS)
  - + Teaching assistants (TAs) - including specialist TAs
- Services – Local Authorities (districts) commonly have a Visiting Teacher Service (VTS) supporting those in a variety of settings
- Some schools have specialist resource bases
- Some (few) specialist schools for children with VI
  - e.g. **Birmingham** LA (very big) – large VTS, 3 resource bases, 1 specialist school (Priestley Smith School)
  - Most children in mainstream school or specialist school with a **non-VI** designation (e.g. SLD)

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# Part 1 – A toolkit for being a QTVI



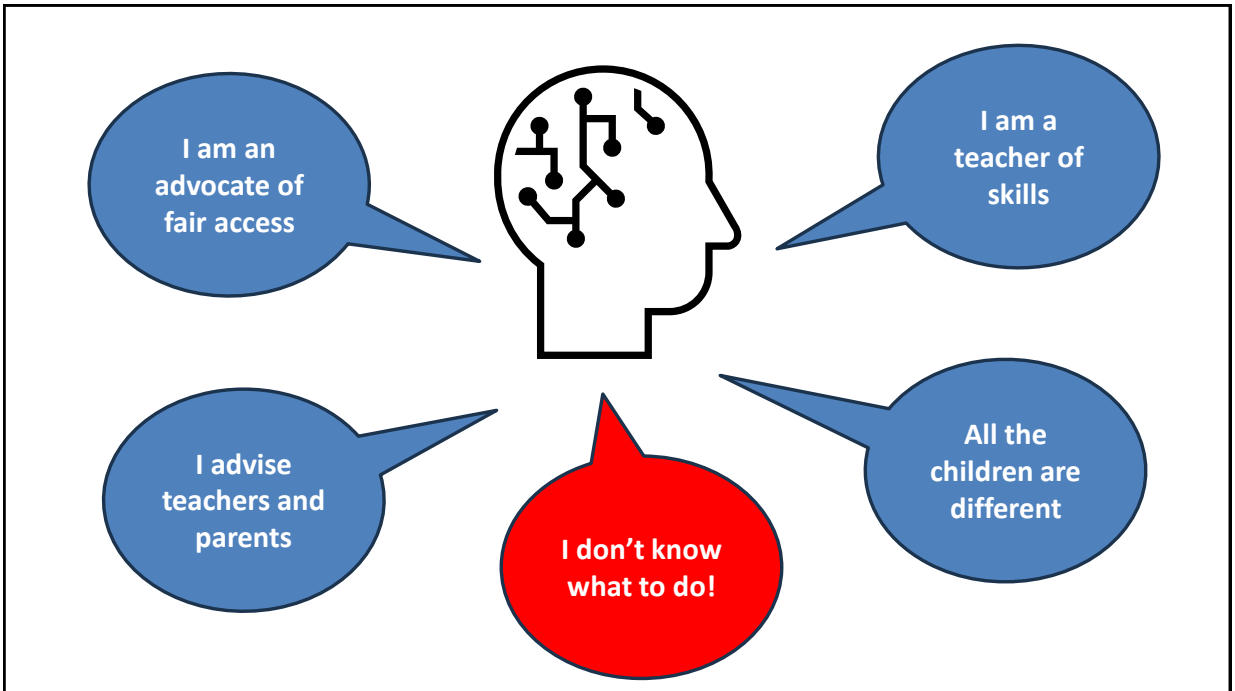
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## Defining a QTVI

- QTVIs must be lots of things:
  - Captured in the government “Specification for mandatory qualifications for specialist teachers of children and young people with vision impairments”(England)\* - a legal basis for what they must know and how they must be trained
  - Very helpful – but 135 standards are rather overwhelming
- This can be confusing....

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/699062/Specification\\_for\\_mandatory\\_teacher\\_qualifications\\_-\\_vision\\_impairment.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/699062/Specification_for_mandatory_teacher_qualifications_-_vision_impairment.pdf)

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## Simplifying things...

- Teacher as a “practitioner-researcher”
  - source: McLinden, Douglas, Hewett, et al. (2022)
- The model was developed to describe the role ‘specialist teachers’ (specifically specialist teachers of children with vision impairment)
- The simple model:
  - Recognises that there are many strands to being a QTVI.
  - Including *practice* and *research* knowledge, understanding and skills... [in many ways the standards could be mapped to the areas]

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## QTVI as a practitioner-researcher

### (1) Practitioner toolkit

### (2) Researcher toolkit

### (3) Part of a collaborative team

### (4) Theory

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## QTVI as a practitioner-researcher

### (1) Practitioner toolkit

- Subject knowledge
- Approaches and interventions
- Technical knowledge
- Pedagogical knowledge

### (2) Researcher toolkit

- Assessment tools
- Systematic approaches to trying things out
- Data on progress

### (3) Part of a collaborative team

- class teachers, parents, TAs, habilitation workers, physios...
- young people themselves, peers.

### (4) Theory


- Fills in the gaps
- Gives direction and purpose
- Reminds us 'why' and **what matters**
- Helps us navigate dilemmas

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## Reflection...

- Think about these different elements of your development... and how they all must **work together**.
- Think also about your strengths, experience and areas of development.
- Reflect upon your expectations when you started working in this field: common that these were linked heavily upon the 'practitioner toolkit'... with the hope that:
  - All will be clear once I know the teaching strategies
  - There must be a magic formula, right?
  - I just need to know 'what works'\* ...



We sometimes know what works, but it's usually more complicated...

\* we don't always know "what works" (certainly not all the time), and we recognise things work for different people...

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## Reflect on our learning...

1. Practitioner toolkit – "I know what to do!"
2. Researcher toolkit – "I know how to find things out"
  - Because I need to account for unique circumstances, individuals and situations in which your practice occurs
  - There are lots of things we do not know...
3. Collaborative team toolkit – "I know who to ask, recruit, persuade, ..."; the social context.
4. Theory toolkit – "There are ways of looking at this that will help show me the way..."

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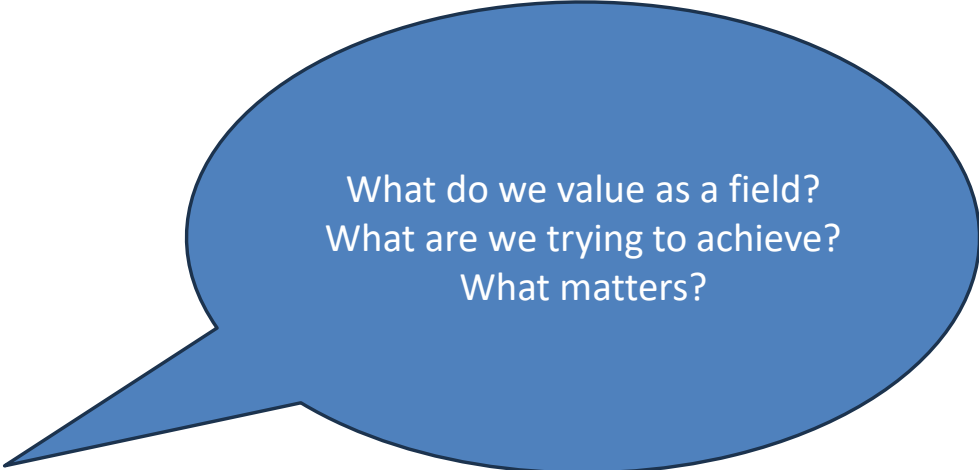
- class teachers, parents, TAs, habilitation workers, ...
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## PART 2 – What matters?



What do we value as a field?  
What are we trying to achieve?  
What matters?

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## What matters?

- What is 'our field' – i.e. how might we describe 'vision impairment education'?
  - **who (population)** – ✓
  - **distinctive need(s)** – ✓
  - **educational response...**

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## Population – examples

- Heterogeneous population – ✓
  - Child 1 (6 years old) – congenitally blind/early braille literacy
  - Child 2 (12 years old) – late onset; deteriorating condition, learning media assessment (LMA)
  - Child 3 (14 years old) – low vision/print literacy/access technology
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- Low incidence condition in childhood
- ‘low-incidence, high-need’ disability

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## Distinctive need(s)

- Common analysis revolves around **ACCESS**, and the implications of this:
  - vision coordinates and integrates;
  - impairment in visual function restrict both the quantity and the quality of information available to a child and young person (CYP);
  - reduced opportunities to **Incidental learning** (e.g. copying others, reaching for objects, seeing print, social modelling)
  - challenges in *accessing* the curriculum.
  - e.g. Lowenfeld (1973): (i) restriction in the range and variety of *experiences*; (ii) restriction in the CYP's *mobility*; and (iii) restriction in the CYP's interaction with the *environment*.
- Implications:
  - for **immediate** interaction, communication and learning
  - for **longer-term development**
  - much literature provides commentary on development – e.g. difficulties with mobility, communication, literacy

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## Educational response

- **Challenge 1:** population is heterogeneous and individual needs are so variable... what therefore are the implications for defining 'what matters' and 'what works'?
- **Interactive activity:**
  - note down one thing that you feel **matters** and we should **value** as a field
  - share with a neighbour then we can share 5 examples as a group

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## Feedback: What *matters*?

- Many things drive our answers for example:
  - Addressing the diverse needs and challenges discussed?
  - Making positive differences through effective interventions and support?
  - Making an accessible environment?
  - Preparation for life after school?
  - Personal agency/voice
- But what underpins 'what matters' must be *articulated* as values and theories...

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## Some key constructs – models of disability and development

- Where do we put our effort? Where do we attribute the difficulties faced by child and young people (C&YP) with VI, e.g.:
  - *social models of disability* – (e.g.) schools are social systems with barriers and enablers to access
  - *education* – function to support the development and growth of individual C&YP/person
- Tensions: Both are important? (and other things too...) And there may be other models which help navigate these tensions (e.g. interactive models, ecological models)
  - But it must be articulated because it helps in the design of the intervention and prioritising of the educator effort.

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## Key traditions and views of vision impairment education

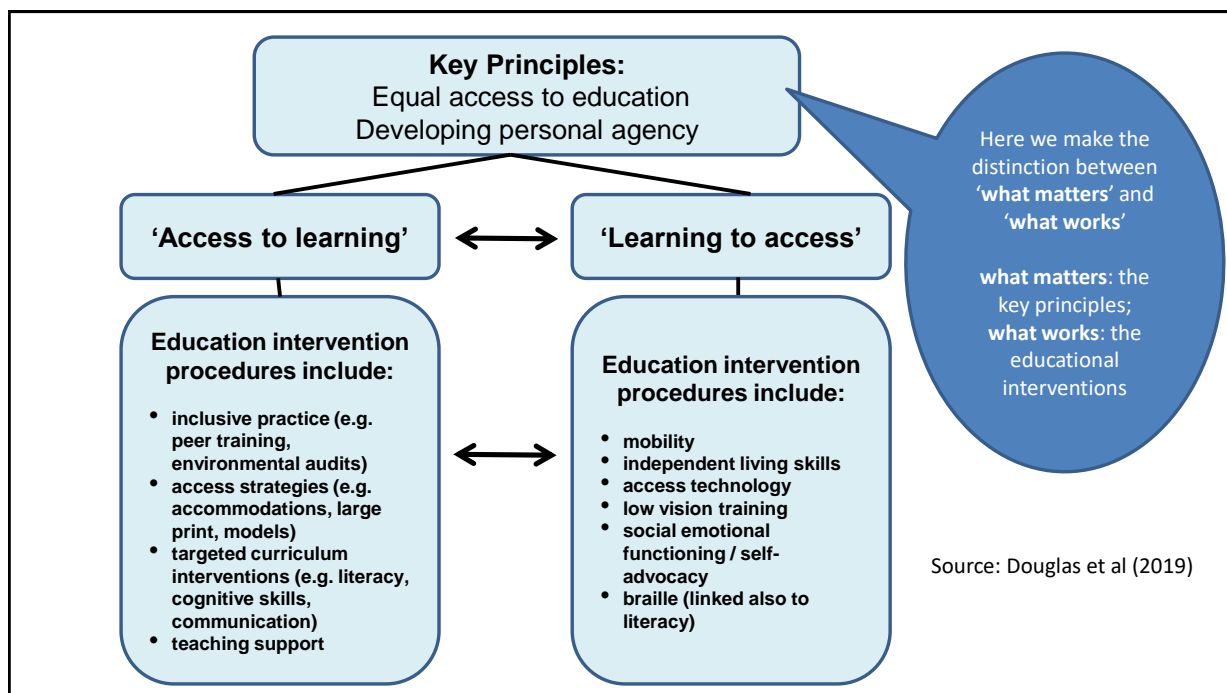
- The distinctive needs associated with VI leads to views of:
  - How things are taught (and presented) – **teaching strategies** which involve adjustments and strategies which enable access to core curriculum;
  - What is taught – **specialist curriculum** which focusses upon developing skills associated with the development of independence;
  - And the traditional view that **specialist teachers** are sometimes needed (this is partly in recognition that this is a low incidence disability in most parts of the world). [we will return to this later]

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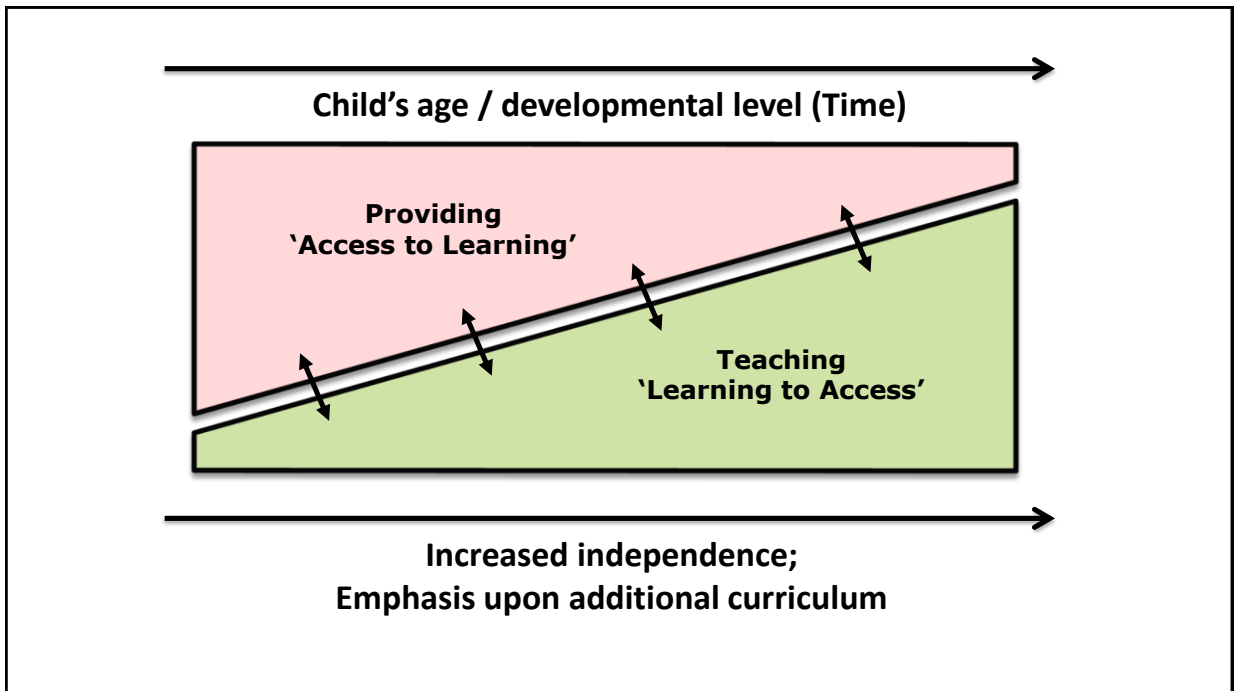
# Key traditions and views of vision impairment education

- As a result vision impairment education tends to have a dual focus:
  - **Equal access to education and Inclusive teaching** (accessible and modified materials, environmental audits and adjustments, peer and staff awareness training);
  - **Developing personal agency and independence** (mobility, living skills, technology).
- **Dual access model** (e.g. McLinden, Douglas et al., 2022)
  - **Access to learning approaches:** Inclusive/universal approaches and differentiation, ensuring that the child's environment is structured and modified to promote inclusion, learning and access to the core curriculum, the culture of the school and broader social inclusion. This might include: accessible and modified materials, environmental audits and adjustments, peer and staff awareness training.
  - **Learning to access approaches:** teaching provision which supports the child to learn independence skills and develop agency in order to afford more independent learning and social inclusion. This might include skills development in areas such as mobility, living skills, and technology.

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## Breath and pause...

- I have made an argument about the importance of articulating 'what matters'
- This gives the value system and theory to help guide the educational response... now we reflect upon:
- **'What works?'**

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## PART 3 – What works?



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## Example Literature review

- Rapid Evidence Assessment (REA) – Funded by the Welsh Government
- Systematically identify and report research studies concerned with the effectiveness of **educational interventions** to support children and young people with vision impairment.
- **Educational interventions** defined as ‘studies which sought to describe the effect of some kind of educational approach upon a targeted outcome. These studies might be qualitative designs, controlled trials, or single subject designs.’
- Outputs (in preparation):
  - Full reports (pp140)
  - Teacher guides (pp30)
  - See – Douglas et al. (2019a, 2019b), or Chapter 10 in McLinden et al. (2022)

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## Nature of evidence

- Empirical literature: Strong ‘evidence of need’; Weaker ‘evidence of effective intervention’ – relatively few empirical studies
  - Some things have not been researched
  - Challenging carrying out research in low incidence heterogeneous populations
  - There is other evidence which is not captured in ‘what works’ reviews
- Educational practice demonstrates that some interventions broadly work – e.g. learners with vision impairment are able to learn to:
  - use assistive technology successfully;
  - learn to touch type;
  - make use of long canes for mobility;
  - learn to read and write braille;
  - use low vision devices to access print;
  - benefit from optimised lighting.

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## Nature of evidence

- Children are generally not able to learn to do this without teaching, and without teaching by someone who:
  1. recognises that these things are possible;
  2. recognises these things are important;
  3. has specialist knowledge.
- But lack of research evidence means that interventions lack precision
  - when, to whom, and exactly how these interventions should be implemented
- Suggests educators must problem solve and gather evidence of progress – practitioner-researcher therefore a key (specialist) professional requirement.

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## OK – but tell me: ‘What Works’!?

- We must recognise that many things ‘work’, but other factors may dictate which approach to choose:
  - Values
  - Preferences (of learner and/or their parent/carer)
  - Developmental level
  - Additional difficulties
  - Context (including culture, resources, policies)
- As examples, consider the following contrasting approaches split between ‘access to learning’ and ‘learning to access’
  - For reference – all the suggestions ‘work’, but which is best?
  - The dual access model gives some guidance here

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### Approaches to developing literacy

| ‘Access to learning’ strategies   | ‘Learning to access’ strategies  |
|---|--|
| <ul style="list-style-type: none"> <li>• Identifies books of appropriate level with modified print, bold and attractive pictures.</li> <li>• Designs and produces bespoke modified print materials with modified pictures / associated material.</li> <li>• Encourages early writing with high contrast bold pen.</li> <li>• Introduces specialist equipment to create an optimised reading environment (lighting, angled desk)</li> <li>• Uses talking books.</li> </ul> | <ul style="list-style-type: none"> <li>• Introduces magnifiers to access print books.</li> <li>• Introduces eBooks, and teaches how print presentation can be adjusted.</li> <li>• Encourages learner to make their own adjustments to optimise lighting.</li> <li>• Teaches touch typing skills (and associated software).</li> <li>• Teaches methods for making adjustments to computers to improve accessibility (e.g. change resolution, increase icon size)</li> <li>• Teaches speed control for talking books</li> <li>• Where appropriate considers alternative routes to literacy (e.g. braille).</li> </ul> |

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# Competing priorities, and finding the balance?

- A key challenge facing educators and policy makers is knowing how to include the additional curriculum and the academic curriculum “given the time constraints of the school day” (Wolffe and Kelly, 2011, p. 341)
- Underpinning this challenge is that ‘access to learning’ and ‘learning to access’ approaches are targeting different educational outcomes
  - addressing the immediate access needs of children
  - longer-term independence development
  - There is significant evidence in the literature that there is commonly an (over)emphasis upon immediate access needs at the expense of longer-term development and goals
- Solution: *progressively* adjusting teaching practice.
- It is theoretical engagement – i.e. considering the values which underpin what we seek to achieve – that helps navigate dilemmas.

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| <p><b>Balance (progressive)</b></p> <ul style="list-style-type: none"> <li>• <b>[Print reading for illustration]</b></li> <li>• Provide <i>targeted</i> modified print materials with modified pictures / associated material.</li> <li>• Teach children use low vision devices (magnifiers) and technology from an early (primary) age; also touch typing; (including ‘normalising’ this behaviour).</li> <li>• This includes working with all stakeholders (children, parents, classroom teachers and assistants) to encourage and reinforce these approaches.</li> <li>• ‘Anticipatory teaching’ is generally advisable (avoid “we’ll do this when they need it in secondary school” mentality) – maximise independent access to print/literacy before secondary school age (practice).</li> </ul> |  |

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## CFVI

- In the second lecture we will discuss the “Curriculum framework for children and young people with vision impairment” (CFVI)
- This is an example of how in the UK we are trying to provide practical solutions and resources which help stakeholders navigate some of the uncertainty described above (e.g. QTVIs, Families, C&YP with VI, policy makers)



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## Conclusion

- Perhaps one of the hardest jobs as a QTVI is **articulating** the breadth and importance of the educational support and interventions required in Vision Impairment Education.
- Attention to the four aspects of the **practitioner-researcher framework** helps you:
  - recognise that these things are **possible, important and matter** (theory)
  - recognise that **specialist knowledge** is needed for targeted work;
  - recognise that **evidence** of progress must be systematically collected;
  - recognise the important role of **all stakeholders**.

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# Thank you

## Questions/discussion if time allows

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## References

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