

Supporting Equity and Educational Design (SEED)

Growing Awareness of Accessibility in Digital Classrooms in Ireland's Primary Schools

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Accessibility and Digital Literacy

- Digital technology shapes how learners communicate, learn and participate in civic life
- Accessibility and usability are deeply connected (Kreijtz et al. 2025)
- Lack of attention to accessibility can exclude individuals with visual, cognitive or physical disabilities
- Accessibility as a foundational concept of digital literacy
- The European Accessibility Act 2025) highlights the need for accessible digital environments across sectors including education

SEED Project Aims

Examine current practices and awareness of accessibility in Irish primary schools

Investigate how accessibility is currently addressed in classrooms

Identify gaps in teacher knowledge and available resources

Develop practical, curriculum aligned resources to support teachers

Context

- Inclusive design principles e.g., readability, colour contrast and multimodal representation
- Universal Design for Learning – proactive design that supports a wide range of learners
- European Accessibility Act
- UN Sustainable Development Goals 0 SDG 4 (Quality Education) and SDH 10 (Reduced Inequalities)
- Digital technology widely used in primary education but explicit attention to accessibility is often limited

SEED Toolkit

A practical, classroom-based toolkit to introduce accessibility concepts to primary school learners in an engaging and age-appropriate manner

Created to support teachers in embedding accessibility within existing classroom activities, particularly in senior primary classes

FACTS ABOUT HEDGEHOGS

Hedgehogs are small mammals. They have hard spikes on their backs, their sides and their heads. Hedgehogs have between five thousand and seven thousand spines or quills.



Hedgehogs eat whatever is available – caterpillars, earwigs, worms, beetles, frogs, fruit and other foods from gardens, even cat-food. **They don't drink milk.** Water is the best.

HEDGEHOGS CAN RUN BUT NOT VERY FAST.



A baby hedgehog is called a hoglet.

Hedgehogs are nocturnal animals.

Hedgehogs live in the wild in Africa, Asia, New Zealand and Europe. They live in gardens, hedges, woodlands and grasslands. They live in burrows (holes in the ground) or nests. Hedgehog nests are made from sticks, branches and leaves.



HEDGEHOGS ARE NOT VERY BIG.

Hedgehogs are not very fast.

Hedgehogs are not very big. They are smaller than most animals.



HEDGEHOGS CAN CURL UP IN A BALL WITH THEIR QUILLS STICKING OUT FOR PROTECTION

Hedgehogs sleep for about 18 hours per day. That's 3/4 of the day! Hedgehogs are nocturnal.

Asleep

Awake

Posters

Facts about Hedgehogs

What is a hedgehog?

- Hedgehogs are small mammals.
- They have hard spikes on their backs, sides and heads, called spines or quills (between 5,000 and 7,000).



African pygmy hedgehog (pet)

What do hedgehogs eat?

- Hedgehogs eat whatever they find – insects, worms, frogs, fruit and other foods from gardens, even cat-food.
- They don't drink milk. Water is the best drink for them.



Hoglet (baby)



Hedgehog (fully grown)

Over the year...

1. From November to March, they are curled up in their nests asleep. This is called hibernation.

2. In March, they emerge from their nests. They have lost around 33% (one-third) of their body weight, and they are very hungry and thirsty.

3. In June, the females give birth. For the first three weeks the hoglets stay in their nest and only drink from their mother.

4. In July, the hoglets start leaving the nest with their mother to find their own food.

5. From August to October, they eat as much as they can to gain weight for their hibernation. They also start building their nest for hibernation.



Irish hedgehog (wild)

Hedgehog habitats

- Hedgehogs live in the wild in Africa, Asia, New Zealand and Europe.
- They live in gardens, hedges, woodlands and grasslands.
- Hedgehog nests are made from sticks, branches and leaves.



Hedgehog with quills sticking out for protection.

Hedgehogs can...

- Hedgehogs can run, but they are slower than a human.
- They can hear sounds too high for humans to hear.
- Hedgehogs can see in the dark.
- They can smell things 100 times better than humans can.
- Hedgehogs can curl up in a ball with their quills sticking out for protection.

A hedgehog's daily life

- Hedgehogs sleep for around 18 hours a day.
- Hedgehogs are nocturnal. They come out of their nests at night.



Hedgehog sleeping in a blanket (pet).

Keyring cards



Layout and Structure

- The layout uses clear headings and bullet points to break information into manageable chunks.
- A single-column layout is used to support smooth reading.
- Plenty of white space is included to keep the poster clear and uncluttered.

Images and Alternative Text

- Every image has a short caption that explains what it shows.
- Images do not interrupt the flow of text and are not used as background elements.
- Alt text is included for all images, and the reading order in PowerPoint is arranged correctly for screen-reader users.

How we Created an Accessible Poster About Hedgehogs

This poster was designed using the principles of technical communication and the National Disability Authority's guidance on universal document design. Our goal was to make the information clear, readable, and accessible to as many people as possible.

Writing and Language

- Numbers over 10, four-digit numbers, and percentages are written in full for clarity.
- Technical words such as hibernation and nocturnal are explained in simple language.
- All text is written in plain language to support easy reading and understanding.

Fonts and Formatting

- A clear, familiar sans serif font is used, which is recommended for readers with lower literacy levels and for people with dyslexia.
- White text appears only on a darker background and is slightly larger to improve readability.
- There is no use of italics, block capitals, or underlining, and all text is written horizontally.
- All text is left-aligned to support smoother reading.

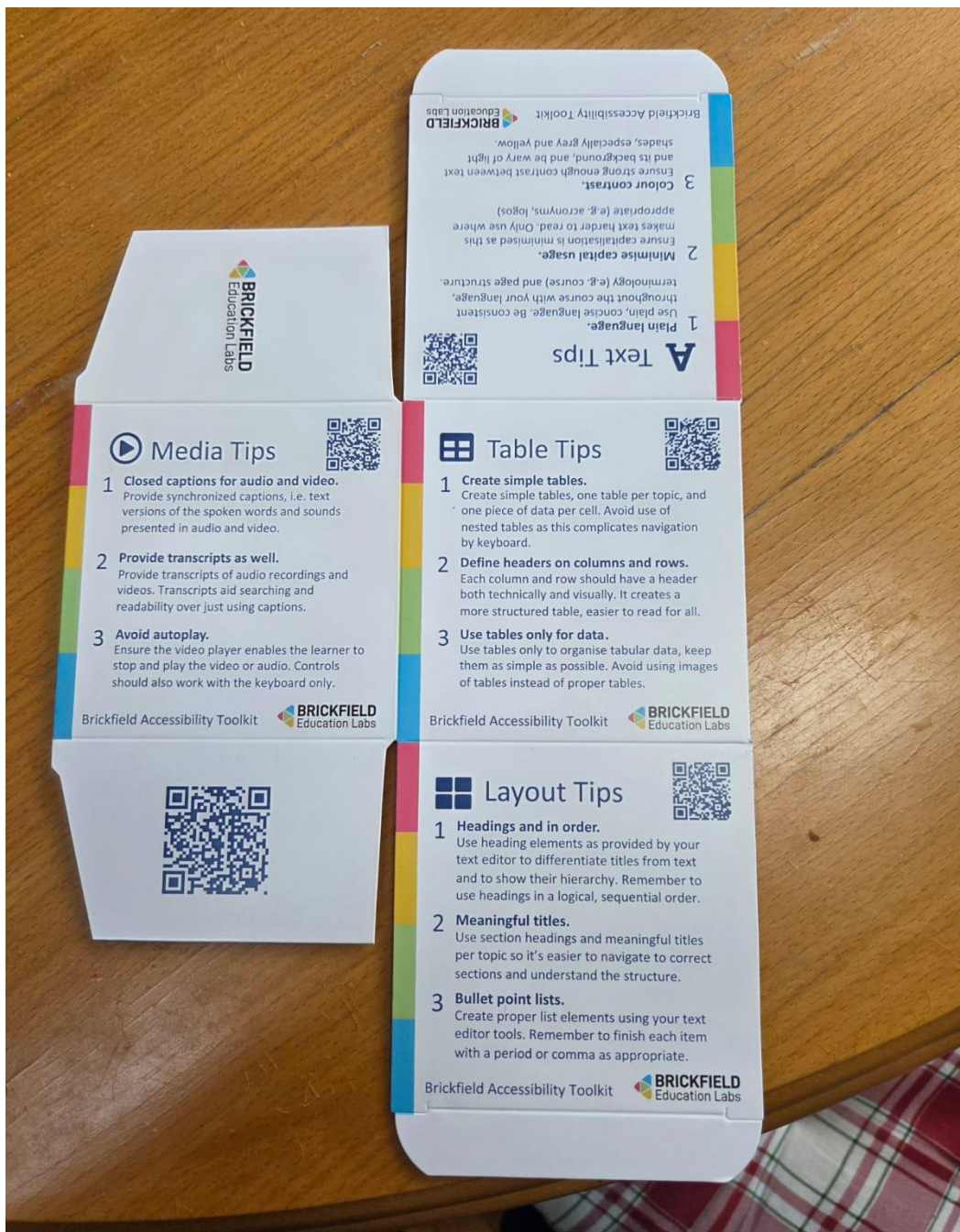
Colour and Contrast

- Colours that can be difficult for people with colour-blindness are avoided.
- Good contrast is maintained between text and background throughout the poster.
- No images are placed behind text.

Toolkit development

Unanticipated development = Irish-language version of student cube

Brickfield Education Labs provided access to an existing presentation design resource used in adult training contexts which was adapted for use in primary education settings



Methodology

- Ethical clearance March 2026
- Qualitative Study
- Purposive sampling to recruit 4th- 6th class teachers in DEIS and non-DEIS schools
- Semi-structured teacher interviews/surveys:
 - 1) How digital content is created and shared, supports and resources available to teachers, awareness of design principles and challenges integrating inclusive practice
 - 2) Teacher feedback of and observation on implementing toolkit
Analysis will inform further development of the toolkit

Implementation

Consultation with school principals to introduce project and resources

Positive feedback, strong support and recognition of relevance of accessibility within contemporary digital learning contexts

Appreciation for quality and durability of the printed materials and additional classroom resources to support teaching and learning

Initial response suggests toolkit aligns well school priorities and perceived as both practical and valuable for classroom use

Conclusion

- Digital accessibility as a foundational element of digital literacy within primary education
- Gap between high levels of digital engagement in classrooms and limited availability of accessible, affordable classroom materials to support teaching of inclusive design principles
- Accessibility can be embedded meaningfully within existing curricular activities
- Scalable, contextually relevant resources
- Role of early intervention in fostering accessible digital practices

Reference list

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