

Learning about neurodiversity at school—and beyond

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#LEANSproject

LEANS 
Learning About Neurodiversity at School



THE UNIVERSITY
of EDINBURGH

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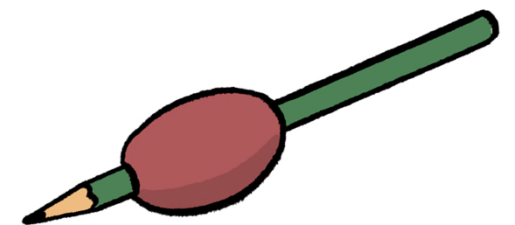
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Today's talk

1. The Learning About Neurodiversity at School (LEANS) programme
2. Why talk about both autism *and* neurodiversity?
3. Neurodiversity and the community: time for action!

There's much more online!

<https://salvesen-research.ed.ac.uk/leans>

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The Learning About Neurodiversity at School (LEANS) programme



Introducing LEANS

- LEANS is a **new resource pack** to introduce neurodiversity concepts to mainstream primary classes in an accessible and engaging way.
- **Free, off-the-shelf, available right now** (download)
- Designed for ages **8-11 years**
- A **whole-class, teacher-delivered** programme
- Links to existing curriculum topics and priorities
 - Inclusion, diversity
 - Wellbeing, health, safety
 - Citizenship, human rights, and more!



Defining neurodiversity for pupils



“Neurodiversity means that we are all different in how we think, feel, and learn, because our brains **process information** differently.

Neurodiversity includes everyone, because everyone has a brain!”

“Information processing” includes things like...

- Understanding language
- Paying attention and ignoring things
- Remembering
- Knowing where you are in space, moving your body
- *Many more that affect our daily experiences, and learning!*

More key messages for pupils



- Align neurodiversity with other types of human diversity already discussed at school (e.g. culture, language). This is another way we can differ!
- Like other types of diversity, it's about variation in **groups**, not individuals.
- Being in the minority (neurodivergent) isn't bad or wrong. There is no one "right" way to be.
- Impacts on daily life can be BIG.

Research says: knowledge and attitudes matter

- **Poor understanding, negative attitudes, stigma** contribute can contribute to, compound neurodivergent pupils' other challenges
- **Good news:**
 - Research *also* indicates that we can **address stigma** by increasing people's knowledge.
 - Has been shown specifically in schools, even over a short period.

→ **This is broadly the strategy LEANS takes**



LEANS goals: Positive changes at school

Post-participation in LEANS, we want pupils and teachers to...



- **KNOW:** To increase their **knowledge** of neurodiversity terms and concepts.
- **THINK:** To create more positive **attitudes** towards neurodiversity and neurodivergence.
- **DO:** To increase individuals' positive and inclusive **actions** within the school community.

Resources are grouped into topic units

1. Introducing neurodiversity
2. Classroom experiences
3. Communication
4. Needs and wants
5. Fairness
6. Friendships and relationships
7. Reflecting on our actions



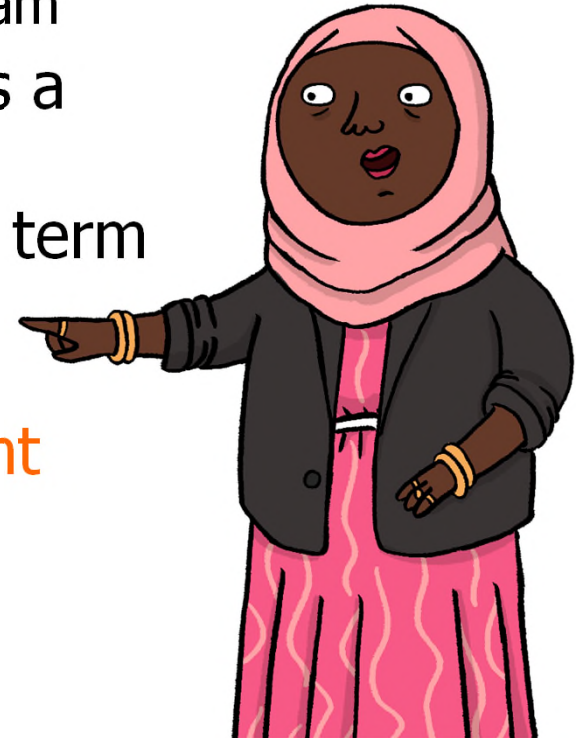
Units combine resource types

Different resources play complementary roles:

Videos	Directly explain tricky new concepts and vocabulary
Hands-on activities and discussions	Experience new ideas, make them real: "I saw that myself"
Stories	Illustrate individual perspectives, and range of school experiences
Unit posters	Classroom reminder of big ideas

Facts for schools

- Teachers *don't* need to be neurodiversity experts to deliver LEANS!
 - Background topic information
 - Extensive tips and guidance from our neurodiverse team
 - No required training course: Teacher Handbook is a "course in a book"
 - Time requirement: 1-2 hours/week over 1 school term
 - Estimated 15-19 hours total to deliver the content
 - Longer delivery possible, shorter delivery tricky!
- LEANS content is free, but it *is* a time investment to prepare and deliver.



Developing LEANS: How did we get here?

- Very open funding: not pre-committed to exact facts or formats
- **Participatory design process** with neurodiverse, experienced group of educators (professional + lived experience)
- Team had to decide...
 - What does “teaching about neurodiversity” mean for this age group?
 - Key definitions, learning objectives
 - What type of materials to make?
 - What guidance do teachers need?
- Later consultation stages with additional teachers, community members..



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Evidence and LEANS experiences

2021 evaluation in schools

- **Feasibility**

- Do schools, and individual teachers, want to use it?
- Are planned delivery, individual activities working?

- **Accessibility for pupils and teachers**

- **Safety for participating people**

- **Impact**

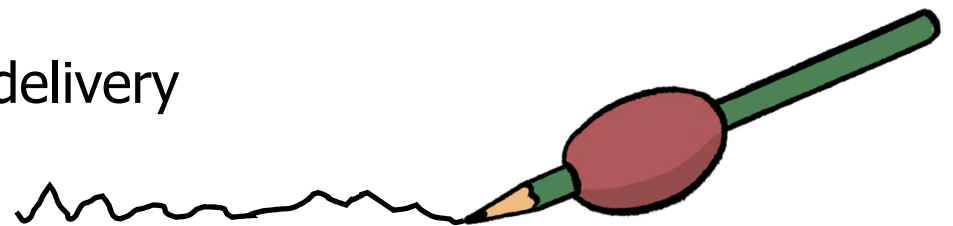
- Do children learn new things about neurodiversity?
- Are there shifts in attitudes or intended actions?

→ **KNOW-THINK-DO GOALS**



What we did

- Teachers delivered LEANS in 8 classes across 4 mainstream primaries
 - About 140 children completed LEANS (1 class withdrew)
 - 62 children had opt-in parental consent to share quiz data with researchers (average age 9.8 years)
- Children completed quizzes before and after LEANS
 - Attitudes and actions
 - Neurodiversity knowledge
- Additional qualitative data from pupils and teachers
 - Open-response quiz questions
 - Written teacher diaries during LEANS delivery
 - Child interviews



What we found

- **Feasibility**
- **Accessibility for pupils and teachers**
- **Safety for participating people**
- **Impact**

Found NO major feasibility or acceptability issues

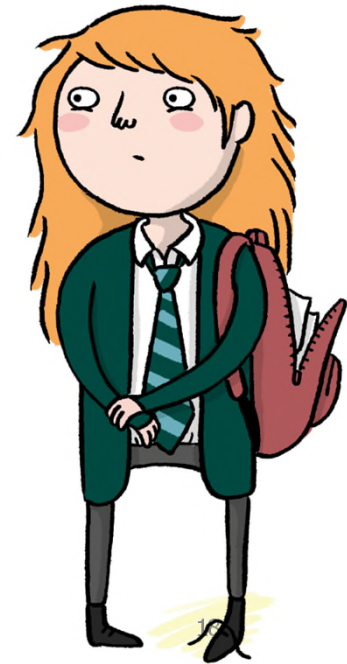
YES: lots of practical feedback to improve resources

Found NO safety issues, evidence of harms

YES: Evidence of changes to knowledge, attitudes, intended actions

Impact (Know-think-do)

- Defining neurodiversity
 - Increase from 18% correct answers to 60% correct answers
- Neurodiversity knowledge
 - Mean quiz score 5 out of 8; significantly above chance levels
 - Children show effective grasp of the concepts introduced in LEANS
- Attitudes and actions
 - Significant improvement in quiz scores
 - Increase in children endorsing attitudes and actions aligned with LEANS



Reactions from pupils



- **On opinion questions about LEANS...**
 - 81% agreed with the statement "I learned new things from the LEANS activities and stories."
 - 90% agreed "I think other schools should do LEANS too."
- *"[It was] fun... just how everyone was taking part, and different opinions I got to hear" [interview]*
- *"I learned about Neurodiversity and how brains process info differently. Depending on whether they are Neurodivergent or Neurotypical." [Quiz free-response]*
- *"If I treat everyone the same way it could be unfair" [interview]*
- *"People are different and shouldn't feel that they have to change." [interview]*

Teacher reflections on impact 1

"I think that studying LEANS genuinely made an impact on the class. Individual children... appeared to have a 'penny drop' moment..."

I think it helped children to have a better understanding of the way others are/feel, and also why learning can be different and is delivered differently to them."



LEANS in summary

- A free curriculum for mainstream primaries, available NOW
 - Introduce pupils aged 8-11 years to the concept of neurodiversity
 - How it impacts our experiences at school
 - Teacher delivered, includes all you need, no required training
- Goals: target what people **know**, **think** and intend to **do**
 - Improving school environment and daily experiences
 - Support inclusion, participation, attendance
- Evaluation evidence suggested LEANS is feasible, safe, and can change knowledge, attitudes, and intended actions

**Is it useful to teach
about neurodiversity
and autism?**



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**Yes, if our goal is to cultivate
better understanding and
daily-life experiences.**

Neurodiversity is broad

...and that is useful! Four reasons why:

1. Concept explicitly includes *neurotypical* people (usually a majority)
 - A reason to “buy in” to learning
 - Greatest potential for changed knowledge and attitudes?
2. Autistic people are often *multiply* neurodivergent. Autism not the whole story!
3. Neurodiversity helps us talk about people’s experiences, needs, similarities, differences *without* diagnosis as a precondition.
4. Tool to help autistic pupils reflect on *others’* needs and experiences.

Example: LEANS characters Rashida and Simon



Complementary concepts

- Diagnostic labels and the concept of neurodivergence have very different origins!
- Some people will understand themselves via diagnostic labels, *and* be in a neurodiverse classroom. Let's work with that!
- In LEANS...
 - Story content *does* talk about autism and relate it to neurodiversity concepts/vocabulary, because that's where the characters are.
 - Teacher guidance **does not** suggest that it's incorrect or unhelpful to talk about diagnoses!

Neurodiversity teaching and the community



Why do we think the community is so essential?

Schools



**Wider
community**

- Schools are part of the larger community! Two-way influence
- If we think that improving knowledge and attitudes is important in schools...why wouldn't it be important in other settings?

Promoting neurodiversity education

I would see the role of professionals as...

- **Being a trusted voice:** what's important, what's potentially beneficial, and why?
 - *Often also an independent voice!*
- **Signposting** people to readings, resources, programmes
 - In conversations/ providing support
 - Via your organisations' websites, newsletters etc
- **Using their connections** to other professionals and organisations

4 actions for professionals

1. Speak up for neurodiversity!

If your organisation is thinking about neurodiversity training, tools, events, speakers...

- If you support that thing, SAY SO!
- Help explain why neurodiversity is relevant to everyone.

BUT...

- Don't stop being critical! Look for lived experience, and/or reputable organisations.
- Think about what's **constructive**. Constructive may not be comfortable, or 100% positive...



4 actions for professionals

2. Study up, get comfortable with **neurodiversity vocabulary!**
 - See a suggested reading list on LEANS site (More Resources)
 - Think “Who are we talking about?” vs. policing terminology
3. Push back on **misinformation** where you find it, such as...
 - “Neurodivergence is the same as ASN/SEND/ALN”
 - “Neurodiversity is *only* about autism”
 - “Neurodiversity is trying to *replace* autism” (or other diagnoses)
4. **Actively signpost** colleagues, families, and others to reputable, neurodiversity-positive information

The LEANS Community (LEANS-C) impact project



Salvesen Mindroom Centre
No Mind Left Behind



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LEANS and the community

LEANS' funding will end, but neurodivergent people aren't going anywhere!

The goal:

- For people to *continue* discovering, adopting, and using LEANS after the research project officially ends
- Support options that *don't* rely on researchers
- Move knowledge and momentum out into the community!

LEANS Champions Programme

New, personalised source of support with LEANS programme and neurodiversity teaching

- LEANS Champions are experienced education professionals with specialised LEANS training (all volunteers)
- Can support and advise other educators in the UK and Ireland
- Ask about YOUR school and circumstances
- Please read our online info:

<https://salvesen-research.ed.ac.uk/leans/champions>



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Parent and carer power!

- YOU can help get neurodiversity teaching on school agendas
- **NEW: Companion resources** to the LEANS programme
 1. Info booklet for families
 2. School letter: propose LEANS
 3. Info booklet for schools
- Download free:
<https://www.mindroom.org/resources/leans-c/>

Everyone's Included:

Talking to your child's school about neurodiversity

Parent and Carer Information Sheet and FAQs



A final challenge to the community

Could YOU start a venue for people in your community or profession to talk about neurodiversity?

This is a place where community members can lead better than researchers can!



LEANS is here.



Salvesen Mindroom Research Centre

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<https://www.ed.ac.uk/salvesen-research/leans>

Join our mailing list on the **Contact us** page!

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Even more for later

LEANS links

- **LEANS signposting:** <https://salvesen-research.ed.ac.uk/leans/contact/signposting>
 - Big list of more links/where you might answer questions
- **More resources page:** <https://salvesen-research.ed.ac.uk/leans/more-resources>
 - Readings for adults
 - Community recommended resources list (includes some items for older and younger children)
 - Lists of organisations in UK and ROI
- **LEANS FAQs:** <https://salvesen-research.ed.ac.uk/leans/about/resources/faq>
- **LEANS recorded talks, articles, media:** <https://salvesen-research.ed.ac.uk/leans/media>



More options for teachers

- Connect with **organisations** for information, advice, direct support around neurodivergent young people.
- Choose **neurodivergent-authored content** and media, available for all ages
- Use **storytelling, fiction** as a tool to explore and remember others' perspectives and experiences.
- Read the [GTCS professional guide on understanding neurodiversity](#).

Get started with the lists on LEANS' More Resources page!