






About Neurodiversity

Neurodiversity is the diversity of human brains and minds – the infinite variation in neurocognitive functioning within our species.



Source: Craine (2020), in Kapp (ed.) (2020)
doi: 10.1007/978-981-13-8437-0_19

Neurodiversity in Class

Old Approaches	New Principles
strategy for <i>most</i> students; different approaches for <i>some</i>	universal strategy; choices to facilitate differentiation
<i>deficit</i> language	strengths language
focusing on what students <i>cannot</i> do	focusing on what students can do

Based on: Florian & Spratt (2013)
doi: 10.1080/08856257.2013.778111


New Principles for Neurodiversity

increased engagement improved behaviour

enhanced outcomes for all students

choice of materials

Sources: Moreno-De-Luca (2020), 10.1001/jama.2020.19051; Harrop et al (2019), doi: 10.1016/j.rasd.2018.09.008; Schuetze et al (2019), doi: 10.1016/j.dcn.2019.100668; Lane et al (2018), doi: 10.1177/1074295618786965



New Principles in Class

- Supports better academic outcomes through inclusion
- Supports positive behaviour through self-determinism
- Supports teacher wellbeing


Sources: Donati et al (2017), uri: dune.une.edu/theses/104; Shea et al (2013), doi: [10.4172/2165-7890.1000114](https://doi.org/10.4172/2165-7890.1000114); Green et al (2019), doi: [10.1177/1096250617697239](https://doi.org/10.1177/1096250617697239)



Resilience Factors

	Relationships	Choice & Control
NT Students	Sense of relatedness	Support for autonomy, less direct control
ND Students	Sense of relatedness	Providing choice for tasks
Teachers	Developing relationships	Choosing to focus on certain tasks



Sources: Zamorro et al (2021), uri: scholarworks.uark.edu/edrepub/127; Pepperdine (2018), doi: [10.11575/PRISM/33234](https://doi.org/10.11575/PRISM/33234); Koegel et al (2010), doi: [10.1007/s10803-010-0962-6](https://doi.org/10.1007/s10803-010-0962-6); van der Kaap-Deeder (2018), doi: [10.1037/dev000218](https://doi.org/10.1037/dev000218)



Focusing on Strengths

Feeling emotions like **Gratitude** or **Compassion** facilitates [...] healthy social relationships, and, at the same time, positive relationships [...] build lasting internal resources that [...] prepare us to cope with adversities in the future.

Source: Chaves (2021), in Kern & Wehmeyer (ed) (2021) doi: [10.1007/978-3-030-64537-3_11](https://doi.org/10.1007/978-3-030-64537-3_11)


Strategy 1: Teacher Clarity

What:



- Set clear lesson goals, expectations, instructions, and success criteria
- Clearly explain and demonstrate
- Be very clear about transitions

Why:

- Preference for literal meanings
- Pragmatic language challenges (e.g. understanding gestures and sarcasm)



Sources: Vicente & Falkum (2021), doi: 10.1111/mila.12371; Feldman et al (2019), doi:10.1016/j.ridd.2019.03.006


Strategy 2: Feedback

What:



- Timely, specific, and detailed
- Praise improvement by comparing with prior work and effort
- Clear guidance on how to improve

Why:

- Need for precise information
- Socio-emotional challenges
- Anxiety



Sources: Tay & Kee (2019), doi: 10.1080/2331186X.2019.1634920; Walters et al (2016), doi: 10.1007/s40489-016-0072-2


Strategy 3: Spaced Practice

What:


- Multiple exposures over several days
- Scaffolding with worked examples
- Multiple activities to support skill and knowledge development

Why:

- Reduces anxiety
- Increases positive experiences
- Consolidates longer-term gains



Sources: Walters et al (2019), doi: 10.1007/s40489-016-0072-2; Craske et al (2014), doi: 10.1016/j.brat.2014.04.006




Strategy 4: Classroom Discussion

What:


- Scaffolding with concept mapping and Think-Pair-Share strategies
- Relevant metacognitive skills are taught and modelled in advance


Why:

- Increases student comprehension
- Teaches the “hidden curriculum”



Sources: Kocak & Sari (2021), doi: 10.5539/jel.v10n4p170;
 Jackson & Hanline (2020), doi: 10.1177/1088357619889933;
 Sulaimani & Gut (2019), doi: 10.5590/IERAP.2019.09.1.03;
 Yager (2016), uri: digitalcommons.unl.edu/nchchip/246






Strategy 5: Differentiation (RTI)

What:


- Multi-tiered approach to teaching
- Regular testing to assess student skills
- Small group and individual supports supplement class-wide instruction


Why:

- Improves student readiness for post-school employment and education
- Supports the needs of all students, including neurotypical learners

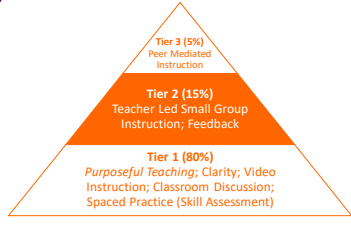


Sources: Choi et al (2020), doi: 10.32865/fire202061179
 Leach (2018), uri: daddcec.com/dadd-online-journal.html






Differentiation: Example Tiers




Tier 3 (5%)
Peer Mediated Instruction

Tier 2 (15%)
Teacher Led Small Group Instruction; Feedback

Tier 1 (80%)
Purposeful Teaching; Clarity; Video Instruction; Classroom Discussion; Spaced Practice (Skill Assessment)



Based on: Nilvius (2020), doi: 10.1108/JLLS-02-2020-0005; Tuba & Roble (2020), doi: 10.12691/education-8-11-7; Rutner (2018), pqid: 10977762; State of Victoria (2020), isbn: 978-0-7594-0820-3; Yates et al (2020), doi: 10.1080/1475939X.2020.1854337





Purposeful Teaching

- recognising our values 
- focusing on our values 
- acting on our values 

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Purposeful Teaching

teacher values 


1. **Respect** for self and others
2. **Caring, kindness, and compassion**
3. **Being inclusive and accepting**

Source: Mergler et al (2016), doi: 10.14221/ajte.2016v41n4.2

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Purposeful Teaching

for reflection... 

1. What are my **values**?
2. How have I lived my values (what can I be **grateful** for)?
3. How can I use the High Impact Strategies to put more of my values into **action**?

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