
All Means All!

A Practical Seven Step Guide for Inclusive Programming

Overview

This guide highlights effective methods for the creation and facilitation of inclusive learning materials in seven short steps. Relevant contextual information; recommendations for preparing content designed for all learners; techniques for implementing neurodiversity-friendly programming; ideological, practical, and environmental factors; guidance specifically related to digital content and accessibility; additional important considerations for inclusivity.

The guide draws from various important concepts, including but are not limited to disability justice, neurodiversity, inclusive education, and digital accessibility. As such, content intentionally embeds culturally sensitive promising practices rooted in principles of equity, diversity and inclusion.

IMAGO Paradigm

The IMAGO Paradigm™, developed by Dr. Morénike Giwa Onaiwu of Advocacy Without Borders, merges theoretical and practical elements to form an adaptable culturally informed and neurodiversity-aligned planning and program implementation model. Derived from a Latin noun whose first documented usage was in the late 18th century, imago is defined as “...the final, fully developed adult stage of an insect, typically winged” (primary meaning) or “...an internal, potentially unconscious idealized mental image or aspiration.”

However, the IMAGO Paradigm™ also refers to an acronym utilized as a mnemonic device to highlight the necessary components of the model itself. Inclusive programming - especially educational and digital content utilized with diverse learners, should reflect the elements below:

Inclusive, Multimodal, Accessible, Generalizable, Original

The information on the following pages highlights, in seven steps, various recommended ideologies and practices that can guide primary and secondary teachers, media professionals, and related support personnel (such as program facilitators, educational support staff, and volunteers) as they develop content and curriculum accessible to all types of learners. Helpful interdisciplinary resources and action tips are also provided.

First, internalize a rights-based approach to learning at the onset

From the very beginning, it is imperative that you and your team are fully committed to the inherent value of **inclusive education - the belief that being afforded the opportunity to learn is a fundamental human right that all people, children and adults, deserve**. Though we often associate learning with schools, and while schools are an important component, they are not the only place learning occurs. Inclusive education encompasses all learning environments, and it applies to all ages.

For inclusive education to be a reality rather than merely a lofty aspiration, we must create the conditions that make it possible for *every* person to obtain the education they are entitled to. That begins with our perceptions and our words, all of which bleed into our practices and often our policies. You do not need to possess expert level knowledge of inclusive education. You might not even be very familiar with it (yet), and that's okay; you can grow over time. However, you must believe it in order to embrace it. And you must embrace it to be able to embody it.

Challenge yourself!

- Increase your knowledge about learning and education as human rights.
- Question and challenge stigmatizing words in our communication and correspondence.
 - Use such instances as “teachable moments” to engage in productive dialogue about respectful and/or affirming language.
 - Understand, however, that changing the language without changing the practice only obscures inequity; it does not change it.
- Search for additional ways within your specific role/profession to maximize your position advocating for the rights and futures of diverse learners.

Resources

- *Universal Declaration of Human Rights* | United Nations, Article 26:
<https://www.un.org/en/about-us/universal-declaration-of-human-rights>
- *The Right to Education* | United Nations Educational, Scientific and Cultural Organization (UNESCO): <https://www.unesco.org/en/right-education>
- *Communicating About People with Disabilities* - National Disability Rights Network:
<https://www.ndrn.org/resource/communicating-about-people-with-disabilities/>
- United Nations. (n.d.). *United Nations Disability Inclusion Strategy*.
<https://www.un.org/en/content/disabilitystrategy/>
- United Nations Department of Economic and Social Affairs.(n.d.). *Disability*. Division for Social Inclusive Social Development. <https://social.desa.un.org/issues/disability>
- UNICEF (United Nations Children’s Fund). (2014). *Child Rights Education Toolkit: Rooting Child Rights in Early Childhood Education, Primary and Secondary Schools*.
<https://www.unicef.org/media/77146/file/UNICEF-CRE-Toolkit-with-appendices.pdf>

Second, seek to maximize everyone's ability to learn

“Educating the mind without educating the heart is no education at all.” – Aristotle

Universal Design for Learning (UDL) is an evidence-based framework of flexible, individualized strategies that help people of all ages learn in the way(s) best suited for them. There is no singular correct way to “do” UDL; it asserts that every learner has their own level of development and capabilities and that there are different parts of the human brain that manage the “why,” “what,” and “how.” As such, UDL must be personalized to meet the needs of each learner, offering “multiple means of engagement, representation, and action/expression.” UDL is utilized inside and outside the classroom, it can occur anywhere.

UDL requires thoughtful approaches and adequate planning time to make sure lessons are accessible to all. UDL in practice may look very different from one setting to another. In some instances, UDL might even seem chaotic or “disruptive” as concepts are learned in many different ways at once; in another, it might be quiet, self-guided exploration. Incorporating technology to aid in UDL instruction can be helpful, but it’s not mandatory; UDL does not require high-tech devices. UDL proponents advocate for making use of one’s readily available materials.

Also, embracing **Neurodiversity** (the neurological diversity of human brains) and incorporating the **Neurodiversity Paradigm** (summarized in a [quote by Dr. Nick Walker](#) below), is crucial: *“The neurodiversity paradigm...boils down to these fundamental principles: 1.) Neurodiversity is a natural and valuable form of human diversity; 2.) The idea that there is one “normal” or “healthy” type of brain or mind, or one “right” style of neurocognitive functioning, is a culturally constructed fiction; 3.) The social dynamics that manifest in regard to neurodiversity are similar to the social dynamics that manifest in regard to other forms of human diversity.”*

Challenge yourself!

- Explore and gain proficiency in neurodiversity-affirming practices.
- Avoid ableist language and incorporate neurodiversity-friendly terminology.
- Center the perspectives of neurodivergent individuals.
- Be creative in thinking about new UDL strategies to try! Vary your method(s) of delivering information (visual, auditory, tactile, multimedia, etc.) to increase accessibility.
- Allow learners choices in the different ways they can demonstrate understanding.
- Evaluate your physical space for neurodiversity accessibility to determine any areas that can be improved using the Sensory Environment Checklist (in the resources section)
- Become a reflective practitioner; take responsibility for your own lifelong learning in order to continue to evolve and grow as a person as well as in your praxis.

Second, seek to maximize everyone's ability to learn (continued)

Neurodiversity Resources

- Vance, T. (2020). *Better Than Social Stories: A Room for Us All*. Neuroclastic. [Article.] <https://neuroclastic.com/better-than-social-stories-free-download-a-room-for-us-all/>
- BBC (n.d.). *Neurodiversity and Buildings: Design for the Mind*. BBC User Design. Creating a Positive Environment. <https://bbc.github.io/uxd-cognitive/> {An Interactive Checklist!}
- UCL Arena Centre. (2023). *Supporting Neurodiversity in Education*. Teaching Toolkits. <https://www.ucl.ac.uk/teaching-learning/publications/2023/oct/supporting-neurodiversity-education>
- Neurodiversity Education Academy. (2023). *Articles and Resources*. <https://www.neurodiversityeducationacademy.org/articles-resources>
- NeuroClastic. (2020). *Understanding the Autistic Mind, Volume 1*. Notebooks for Navigating Different Minds. <https://neuroclastic.com/guide/>
- Dewar, E. (2023). *Neurodivergent Affirming Language Guide*. Neurodiverse Connection. Resources Library. https://ndconnection.co.uk/s/NdC_LanguageGuide_V2.pdf
- Dwyer, P., Ryan, J. G., Williams, Z. J., & Gassner, D. L. (2022). *First Do No Harm: Suggestions Regarding Respectful Autism Language*. *Pediatrics*, 149(Suppl 4), e2020049437N. <https://doi.org/10.1542/peds.2020-049437N>
- Gray, C. (2015). *It's NOT a Social Story If...* {A screening instrument}. <https://carolgraysocialstories.com/wp-content/uploads/2015/09/It-is-NOT-a-Social-Story-if....pdf>

UDL Resources

- UDL for Teachers. (n.d.). *Accessible Teaching Made Accessible for Teachers*. <https://udlforteachers.com/>
- UDL-IRN (2011) *Critical Elements of UDL in Instruction* (Version 1.2). Lawrence, KS: Author. <https://www.learningdesigned.org/sites/default/files/UDLCriticalElements.pdf>
- CAST (2018). *Universal Design for Learning Guidelines version 2.2*. <http://udlguidelines.cast.org>
- Understood for All; Posey, A. (n.d.). *Lesson Planning with Universal Design for Learning*. <https://www.understood.org/en/articles/lesson-planning-with-universal-design-for-learning-udl>
- CAST; Wakefield, M. (2020). *UDL Tips for Designing Learning Experiences*. Resources. <https://www.cast.org/products-services/resources/2020/udl-tips-designing-learning-experiences>
- Dzaman, S; Fenlon, D; Maier, J; Marchione. T. (2022). *Universal Design for Learning: One Small Step*. <https://openpress.usask.ca/universaldesignforlearning/> {free Open Access book}
- Sewell, A; Kennett, A; Pugh, V (2022). *Universal Design for Learning as a Theory of Inclusive Practice for Use by Educational Psychologists*. *Educational Psychology in Practice*, 38:4. (364-378.) DOI: 10.1080/02667363.2022.2111677
- IRIS Center. (n.d.). *Universal Design for Learning: Designing Learning Experiences That Engage and Challenge All Students*. {Module.} Peabody College, Vanderbilt University <https://iris.peabody.vanderbilt.edu/module/udl/#content>

Third, select evidence-based & individualized strategies

Differentiated Instruction is an evidence-based framework, but it is more than just a concrete group of strategies; it's also a distinct pedagogical style. Differentiated instruction asserts that everyone can learn with appropriate instruction that is designed to address their specific needs. Similar to UDL, it is not a reproducible set of steps to follow. Differentiated instruction can occur in various environments with learners of all ages and abilities. It requires adapting to the range of interests, perceived understanding, learning preferences, and preparedness levels of the learner(s). Like UDL, differentiated instruction does not require expensive, complicated, or high-tech materials. Differentiated instruction generally does require extra preparation time, but it is worth it as it leads to increased engagement and enhanced comprehension.

Breaking information down so it is easier to follow is key to inclusive education. **Plain language** is an important individualized tool that aids in cognitive accessibility. **Readability** is another.

Challenge yourself!

- Commit to using plain language and/or to assessing readability of your content.
- Draw on any existing knowledge by building in opportunities for bi-directional learning. Consider whole-group cooperative learning, small-groups, strategic pairs, etc.
- Make concessions for the additional time you will need for prepping, interaction, and likely covering the same material multiple times with different people in different ways
- Have a contingency plan for sensory overwhelm as differentiated instruction tends to make the learning environment more active, noisy, and potentially messy.

Resources

- Autistic Self Advocacy Network. (n.d.). *One Idea Per Line: A Guide to Making Easy Read Resources*. <https://autisticadvocacy.org/wp-content/uploads/2021/07/One-Idea-Per-Line.pdf>
- Self Advocates Becoming Empowered. (2012). *Making Information Accessible*. <http://www.scribd.com/doc/87047498/Self-Advocates-Becoming-Empowered-with-Autism-Now-Webinar-March-27-2012> {Presentation.}
- *Hemingway Readability App*. (n.d.). <https://hemingwayapp.com/>
- MacKay, K. (2021). *Models of Arts Integration: More Than One Way to Do It*. BYU Open Learning Network. https://open.byu.edu/advancingartsleadership/models_of_arts_integN
- Hernandez, M. (2024). *Guiding Students to Use Storytelling Across the Curriculum*. Edutopia. <https://www.edutopia.org/article/storytelling-framework-learning>
- Hidi, S., & Baird, W. (1986). *Interestingness—A Neglected Variable in Discourse Processing*. *Cognitive Science*, 10, 179–194. https://onlinelibrary.wiley.com/doi/pdf/10.1207/s15516709cog1002_3

Fourth, consider the value of collaboration

Collaboration and teamwork are essential components of inclusive education. Partnerships offer a helpful way to realistically implement the changes inclusive teaching requires to address the needs of all learners AND manage all of the other responsibilities with limited time and resources. Multidisciplinary teams that are thoughtfully put together can be a tremendous asset. Consider planning and co-leading lessons with colleagues, educators, support personnel and/or paraprofessionals, etc. Take it slowly (start with just one unit or topic area) to familiarize yourselves with one another's styles. Over time, learn how to fluidly shift between roles.

As **family involvement** is beneficial, collaborate with them when possible as well! Due to the intrinsic connection within families, learners' parents/caregivers and siblings are critical partners.

Challenge yourself!

- Leverage the strengths of a team: Move toward a "shared expertise" model in which all team members are valued and viewed as having vital roles and information.
- Utilize open, respectful communication, giving all perspectives consideration.
- Allow other colleagues chances to contribute to the creation of plans for implementing changes while also acknowledging the work they are already doing.
- Examine how you currently communicate and partner with families; does it need improvement?
 - If so, make the necessary changes; ignoring families' perspectives and point of view is a recipe for failure!
 - Continuously encourage constructive and proactive family interaction.

Resources

- Csillag, J. (2020). *DisCrit Summarized*. Schools for Freedom: Equity Inspired Education. <https://sites.google.com/view/schoolsforfreedom/discri-crit-summarized?authuser=0>
- National Association for the Education of Young Children. (n.d.). *Family Engagement in Action*. <https://www.naeyc.org/resources/topics/family-engagement>
- Elsharif M. M., Middleton S. L., Phan J. M., Azevedo F., Iley B., Grose-Hodge M., et al.. (2022). *Bridging Neurodiversity and Open Scholarship: How Shared Values Can Guide Best Practices for Research Integrity, Social Justice, and Principled Education*. Preprint. doi: 10.31222/osf.io/k7a9p
- Fairchild, M. (2021). *Collaborative Planning, the Forgotten Step of Accessible Development*. <https://www.deque.com/blog/collaborative-planning-the-forgotten-step-of-accessible-development/>
- Azevedo, F., Parsons, S., Micheli, L., Strand, J. F., Rinke, E. et al. (2019). *Introducing a Framework for Open and Reproducible Research Training*. <https://doi.org/10.31219/osf.io/bnh7p>

Fifth, make your animation (& audio/visuals, etc.) accessible

Humans are multimodal learners. We benefit significantly from having information presented to us in a broad range of ways. Technological advances have enabled widespread usage of various resources, such as digital tools. Unfortunately, these tools are often not universally accessible to all users. These barriers, however, don't have to exist. We can correct many of them if we employ thoughtful changes. Let's work together to promote true access for all.

Challenge yourself!

- Run an accessibility check (or several!) on your existing content.
- Incorporate explicitly accessible techniques into your work. Don't just do the bare minimum to comply with the law; push yourself to aim to be as accessible as possible!
- Take advantage of several of the free trainings available online to help you take your accessible practices to the next level.

Resources

- *Solid Start*. (n.d.) <https://www.solidstart.info/>
- *Places to Start* – Disability & Intersectionality Summit: <https://www.disabilityintersectionalitysummit.com/places-to-start/>
- Henry, SL. (2021). *Making Audio and Video Media Accessible*. W3C Web Accessibility Initiative. <https://www.w3.org/WAI/media/av/>
- Shadi Abou, Z. (2017). *Cognitive, Learning, & Neurological*. W3C Web Accessibility Initiative. <https://www.w3.org/WAI/people-use-web/abilities-barriers/#cognitive>
- Diversity and Ability. (n.d.). *Resources*. <https://diversityandability.com/resources/>
- Rooted in Rights. (2023). *Access That. Rooted in Rights*. A Program of Disability Rights Washington. Resources. <https://rootedinrights.org/resources/accessthat/>
- Sutton, M. *Start Building Accessible Web Applications Today*. {Free course!} <https://egghead.io/courses/start-building-accessible-web-applications-today>
- *User Experiences and Benefits to Organizations* | Web Accessibility Initiative (WAI) | W3C <https://www.w3.org/WAI/media/av/users-orgs/>
- Web.Dev. (Google Chrome), Fisher C. (n.d.) *Learn Accessibility* | <https://web.dev/learn/accessibility> {Free course!}
- The A11y Project. (n.d.). *Resources: Software, Books, Blogs, Online Tools, etc.* The A11y Project. <https://www.a11yproject.com/resources/>
- MDN Web Docs; Mozilla Firefox. (2023). *Accessibility: Make the Web Usable By Everyone*. <https://developer.mozilla.org/en-US/docs/Learn/Accessibility>
- *Planning Audio and Video Media* | Web Accessibility Initiative (WAI) | W3C <https://www.w3.org/WAI/media/av/planning/>
- Head, V. (2020). *Accessible Web Animation: The WCAG on Animation Explained*. CSS Tricks. <https://css-tricks.com/accessible-web-animation-the-wcag-on-animation-explained/>

Sixth, be sensitive to underrepresented groups and their priorities

Our world is full of diversity. We are similar in many ways, but we are also different in many ways. Some characteristics are not as frequently depicted, discussed, and/or understood as others. For example, **People of the Global Majority** (various racialized and ethnic groups, sometimes also referred to as people of color [POC], Black and Majority Ethnic [BAME], Black, Indigenous, People of Color [BIPOC], etc.) are often underrepresented.

People who utilize alternative augmentative communication (AAC) as opposed to speaking (or, in some cases, in addition to) are also underrepresented. Previously, the term “nonverbal” was often inaccurately used in reference to this group, but conventional speech from one’s mouth does not = “verbal” as the term simply means “related to or in the form of words.”

Challenge yourself!

- Encourage and support an advanced and modern way of thinking about and using AAC.
 - Call out biased, inaccurate, and stigmatizing misinformation about AAC users.
- Ensure that AAC users are *meaningfully* included in your activities and events.
- Actively educate yourself on important racial issues and ways to render support.
- Don’t be “colorblind” when it comes to racial matters. Find respectful, engaging, and relevant ways to incorporate race into discussions and activities.
- Familiarize yourself with issues relevant to the intersection of disability (including neurodivergence) and race, including those of AAC users within this demographic.

Resources

- Berne, P. (2015). *Disability Justice: A Working Draft*. Sins Invalid.
<https://www.sinsinvalid.org/blog/disability-justice-a-working-draft-by-patty-berne>
- Sulik, J., Bahrami, B., & Deroy, O. (2022). *The Diversity Gap: When Diversity Matters for Knowledge*. *Perspectives on Psychological Science*, 17(3), 752–767.
<https://doi.org/10.1177/17456916211006070>
- *LISTEN* | CommunicationFIRST: <https://communicationfirst.org/listen/>
- *Perspectives* | CommunicationFIRST: <https://communicationfirst.org/perspectives/>
- *AAC Info* | US Society for AAC: <https://ussaac.org/aac-info/>
- Malchiodi, C. (2019). *Kindling the Spark: The Healing Power of Expressive Arts*. *Psychotherapy Networker*. 1-11.
<https://www.cathymalchiodi.com/resources/expressive-art-therapy-articles-links/>
- The A11y Project. (n.d.). *Resources: Software, Books, Blogs, Online Tools, etc.* The A11y Project. <https://www.a11yproject.com/resources/>
- The Academic Autistic Spectrum Partnership In Research and Education (AASPIRE). *AASPIRE Inclusive Research Toolkit* | <https://aaspire.org/inclusion-toolkit/>

Seventh, be aware of important factors & address as needed

The following recommendations address several miscellaneous yet important points and issues that did not “fit” neatly into the previous categories, but need to be emphasized. They include:

Everyone has a role to play in improving the psychological well-being of children. It isn't just the responsibility of the family, or of the teacher, or of the therapist; it should be a collective societal effort. No matter your title or position, you have a responsibility; employ a balanced approach in your work; focus on a variety of outcomes - and be certain social and psychological development is taken into consideration.

Consider incorporating play-based techniques. Play-based learning processes have huge potential for enhanced accessibility and effectiveness. Moreover, because play-based methods often combine analytical and emotional learning, they frequently promote better acquisition of the learning material and produce higher levels of engagement than didactic strategies as well.

Be authentic in your growth (share your successes AND your failures). No one becomes an instantaneous “expert” at accessible, neurodiversity-affirming practice overnight. It takes time; it takes effort; it takes commitment; it takes patience. You ARE going to mess up - more than once. Learn through those struggles. Allow others to see you learning, growing, and striving to work through challenging circumstances. Celebrate successes. But don't be afraid to be genuine when things aren't working well; it is okay to acknowledge difficulty, seek help, and when necessary, change course. It is a natural part of the process, and a sign of progress.

Resources

- Ng B. (2018). *The Neuroscience of Growth Mindset and Intrinsic Motivation*. Brain Sciences, 8(2), 20. <https://doi.org/10.3390/brainsci8020020>
- The SHARE Team. (2018). *The Importance of Play-Based Learning*. Resilient Educator. <https://resilienteducator.com/classroom-resources/play-based-learning/>
- CAST. (n.d.). *National Center on Accessible Educational Materials for Learning*. <https://aem.cast.org/>
- Center for Disability Rights. (2018). *Disability Writing & Journalism Guidelines* https://cdrnys.org/wp-content/uploads/2018/04/Disability_Press_Guide.pdf
- The Greater Good Science Center; Smith, J.A. (2022). *How to Learn From Your Failures*. Greater Good Magazine: Science-Based Insights for a Meaningful Life. UC Berkeley. https://greatergood.berkeley.edu/article/item/how_to_learn_from_your_failures
- Wong, P. T. P., & Yu, T. T. F. (2023, February 17). *A Relativity Theory of Sustainable Wellbeing*. <http://www.drpaulwong.com/a-relativity-theory-of-sustainable-wellbeing/>

Suggested citation: Giwa Onaiwu, Morénike. (2023). *All Means All! A Practical Seven Step Guide for Inclusive Programming*. Advocacy Without Borders: Resources & Tools for Advocates and Allies. Available at: AdvocacyWithoutBorders.org

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- Stanford Center for Teaching and Learning. (n.d.). *Promote Inclusive Learning: Working Together Towards Inclusion*. Stanford University. <https://ctl.stanford.edu/promote-inclusive-learning>
- Capp M. J. (2017). *The Effectiveness of Universal Design for Learning: A Meta-Analysis of Literature between 2013 and 2016*. *Int. J. Incl. Educ.* 21, 791–807. doi: 10.1080/13603116.2017.1325074
- CAST (2018). *UDL and the Learning Brain*. <https://www.cast.org/products-services/resources/2018/udl-learning-brain-neuroscience>
- Chapman R. (2021). *Neurodiversity and the Social Ecology of Mental Functions*. *Perspect. Psychol. Sci.* 16, 1360–1372. doi: 10.1177/1745691620959833
- Csillag, J. (2022). *Schools for Freedom: Equity Inspired Education*. Resources and Tips from an Abolitionist Educator. <https://sites.google.com/view/schoolsforfreedom/home>
- Keith, J. (2021). *Learn Responsive Design: Learn How To Make Sites That Look Great and Work Well for Everyone*. Chrome, Learn Web Development. <https://web.dev/learn/design/>
- Tichá, R., Abery, B., Johnstone, C., Poghosyan, A., & Hunt, P. (Eds.) (2018). *Inclusive Education Strategies: A Textbook*. University of Minnesota; UNICEF; Armenian State Pedagogical University.
- Mittler, P. (2012). *Overcoming Exclusion: Social Justice through Education*. Routledge.
- Sousa, D. A., & Tomlinson, C.A. (2011). *Differentiation and the Brain: How Neuroscience Supports the Learner-Friendly Classroom*. Solution Tree Press.
- Center for Teaching Innovation, Cornell University. (2023). *Accessibility Guide*. <https://blogs.cornell.edu/ctiaccessibility/>

Thank you for your commitment to more accessible and neurodiversity-affirming strategies!
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