

Diseño

Universal para el

Aprendizaje



En el marco de la reforma educacional y su **eje inclusivo**, nace el Decreto N° 83/2015, que promueve la diversificación de la enseñanza en Educación Parvularia y Básica, y aprueba criterios y orientaciones de adecuación curricular para estudiantes que lo requieran (Mineduc, 2017)

Hasta acá, íbamos bien
pero aquí
empieza **el problema**

BCN Ley Chile

Portada Selección Contact

DECRETO 83 EXENTO

EXPANDIR

- ENCABEZADO
- ARTÍCULO 1
- ARTÍCULO 2
- ARTÍCULO 3
- ARTÍCULO 4
- ARTÍCULO 5
- DISPOSICIÓN TRANSITORIA
- PROMULGACIÓN
- **ANEXO CRITERIOS Y ORIENTACIONES DE ADECUACIÓN CURRICULAR PARA ESTUDIANTES CON NECESIDADES EDUCATIVAS ESPECIALES DE EDUCACIÓN PARVULARIA Y EDUCACIÓN BÁSICA**

II. RESPUESTA EDUCATIVA A LA DIVERSIDAD

Las estrategias para dar respuesta a la diversidad en el aula deben considerar la evaluación diagnóstica de aprendizaje del curso, la cual se realiza al inicio del año escolar, y proporciona información relevante al docente respecto del **progreso, estilo y ritmo** de aprendizaje de todos los estudiantes de un curso y de cada uno en particular, lo que permite planificar estrategias diversificadas que favorezcan el aprendizaje de todos. Esta evaluación es relevante porque aporta información de los factores que favorecen o dificultan el aprendizaje, y en consecuencia, para el diseño de respuestas educativas ajustadas a la diversidad.

El **Diseño Universal para el Aprendizaje** es una estrategia de respuesta a la diversidad, cuyo fin es maximizar las oportunidades de aprendizaje de todos los estudiantes, considerando la amplia gama de habilidades, estilos de aprendizaje y preferencias.

La inclusión se operacionalizó a través del **DUA** (Diseño Universal para el Aprendizaje) que introduce los **ESTILOS DE APRENDIZAJE** como eje central de su diseño, lo que queda **explícito** en el decreto.

¿Y qué hay con eso?



Este decreto cambia muchas cosas, por ejemplo, las **mallas curriculares de las carreras de pedagogía**, las que comienzan a incluir contenido sobre DUA, "estilos de aprendizaje" y los respectivos test para identificarlos.

Eso a su vez cambia el abordaje metodológico dentro del aula.

Todo lo anterior, basado en un **NEUROMITO**



A stylized illustration of a woman with long, wavy pink hair, shown in profile from the chest up. She is wearing a black top and a small pink earring. Her hands are clasped together near her mouth, as if she is about to whisper a secret. The background consists of diagonal stripes in shades of yellow and pink, with a pattern of black dots of varying sizes scattered across it.

¿Te cuento un secreto
(a voces)?

La **evidencia sobre el
neuromito de los estilos de
aprendizaje** es bastante
anterior al decreto (Coffield,
Moseley, Hall, & Ecclestone,
2004).

CONTINUEMOS...



El DUA tiene su origen en la arquitectura, donde Ronald Mace, pionero en el diseño accesible, acuña el término DU (Diseño Universal), al que posteriormente se le añadirá la "A" y será adaptado por un grupo de médicos a través de la organización **CAST**, como una respuesta metodológica para la inclusión educativa (Alonso, 2002).

Ann Meyer y David Rose, fundan en 1984 la organización CAST (Centro de Tecnología Especial Aplicada) y extienden el DUA fuera de las fronteras de EEUU. Declaran basar su propuesta en **evidencias... OJO ACÁ**, obtenidas a través de investigaciones que **ELLOS MISMOS DESARROLLAN...**

Fuente: <https://www.cast.org/our-work/research-design-development>

El DUA tiene su origen en las investigaciones llevadas a cabo por este centro en la década de 1990. Sus fundadores, David H. Rose (neuropsicólogo del desarrollo) y Anne Meyer (experta en educación, psicología clínica y diseño gráfico), junto con los demás componentes del equipo de investigación, han diseñado un marco de aplicación del DUA en el aula cimentado en un marco teórico que recoge los últimos avances en **neurociencia aplicada al aprendizaje**, investigación educativa, y tecnologías y medios digitales.



3. Fundamentos neurocientíficos: las redes cerebrales implicadas en el aprendizaje y los principios del DUA

Las últimas investigaciones en el terreno de la neurociencia han arrojado mucha luz acerca de cómo se comporta el cerebro durante el proceso de aprendizaje. Los avances tecnológicos (PET scan, qEEG, fMRI) han hecho posible encontrar muchas evidencias que permiten conocer la estructura del cerebro y comprender su funcionamiento de forma global y localizada durante el aprendizaje (Rose y Meyer, 2000). Así, se ha concluido que existe una **diversidad cerebral** y una **diversidad en el aprendizaje**.

También declaran basar sus propuestas en hallazgos de la **NEUROCIENCIA (obvio)**,
¿cuáles hallazgos,
cuáles fuentes?

No las exponen y cuando lo hacen,
son sus propias investigaciones y
se autocitan entre ellos...



References

Amst J. & Luo N., 2020, 'The intersection of Chinese philosophical traditions and UDL: Exploring current practice in Chinese early childhood classrooms', in [Gonzalez S. & Dalton E.](#) (eds.), Universal access through inclusive instructional design: International perspectives on UDL, pp. 233–241, Routledge, New York, NY.

[Gonzalez S. & Dalton E.](#), 2020, 'Universal access in online distance education: A case study from the Philippines', in [Gonzalez S. & Dalton E.](#) (eds.), Universal access through inclusive instructional design: International perspectives on UDL, Routledge, New York, NY.

Bloom B. (ed.), [Mackenzie M., Uyehara H. W. & Kriethwohl D.](#), 1986, Taxonomy of educational objectives, handbook I: The cognitive domain, David McKay Co. Inc., New York, NY.

Bray B. & [McCluskey K.](#), 2014, Continuum to develop expert learners, viewed 03 July 2020, from <https://www.personalizedlearning.com/2014/03/continuum-to-develop-expert->

[Center for Applied Special Technology \(CAST\)](#), 2018, Universal design for learning guidelines version 2.2 [Graphic Organizer], [Center for Applied Special Technology](#), Wakefield, MA.

[Center for Applied Special Technology \(CAST\)](#), 2020, About universal design for learning, viewed 03 July 2020, from <http://www.cast.org/cast-us/en/about-us/rm18-Xm1P5bZw>

[Center for Universal Design](#), 2008, Universal design principles, viewed 03 July 2020, from https://projects.cmu.edu/inclusive-design/vol/about_udl/index.html

Cook S. & Rao K., 2018, 'Systematically applying UDL to effective practices for students with learning disabilities', Learning Disability Quarterly 41(3), 179–191. 10.1177/0731948717749936 - DOI

Courney S., [Uyehara P.](#), Siker J. & LePage P., 2012, Improved lesson planning with Universal Design for Learning (UDL), Teacher Education and Special Education 36(1), 7–27. 10.1177/0888406412446178 - DOI

[Dalton E., Mackenzie J. & Gonzalez S.](#), 2012, 'The implementation of inclusive education in South Africa: Reflections arising from a workshop for teachers and therapists to introduce Universal Design for Learning', African Journal of Disability 1(1), a13 10.4102/ajod.v1i1.13 - DOI - PMC - PubMed

Davies P., [Gonzalez S.](#) & Spooner C., 2013, 'Measuring the effectiveness of universal design for learning intervention in postsecondary education', Journal of Postsecondary Education and Disability 26(3), 195–220, viewed 03 July 2020, from https://web.sagepub.com/home/jpe/article-pdf/26/3/195/3454647/26_3_195.pdf?pgg=1

Department of Basic Education , 2011, Guidelines for responding to learner diversity in the classroom, viewed 04 July 2020, from <https://education.gov.za/sites/default/files/eng/curriculum/2011/guidelines-for-responding-to-learner-diversity-in-the-classroom.pdf>

Department of Basic Education , 2014, National strategy on screening, identification, assessment and support, Government Printer, Pretoria.

Department of Education , 1997, Quality education for all: Overcoming barriers to learning and development: Report of the National Commission for Special Needs in Education and Training (NCSNET) and the National Commission on Education Support Services (NCSESS), Pretoria, viewed 03 July 2020, from <https://www.education.gov.za/Portals/0/Dc%2F%2FBranches/NSET/Inclusiv%20Ed>

Department of Education , 2001, Education White Paper 6 on special needs education: Building an inclusive education and training system, Government Printer, Pretoria.

Department of Social Development (DSD) , 2016, White paper on the rights of persons with disabilities, Department of Social Development, Pretoria, viewed 04 July 2020, from <http://www.gov.za/sites/default/files/docs/documents/2016/01/white-paper-on-rights-of-persons-with-disabilities-2016.pdf>

De Vries Lawrence M., 2020, Promoting inclusion education and intercultural competence in international service-learning project-based course in [Gonzalez S.](#) & [Dalton E.](#) (eds.), Universal access through inclusive instructional design: International perspectives on UDL, pp. 242–249, Routledge, New York, NY.

Doroshuk D. & [Gonzalez S.](#), 2014, 'The challenges of providing inclusive education in South Africa', South African Journal of Education 34(2), 1–14. 10.15700/2014.02.07.1114 - DOI

Fernald G., 1943, Remedial techniques in basic school subjects, McGraw-Hill, New York, NY.

Gardner H., 1983, Frames of mind: The theory of multiple intelligences, Basic Books, New York, NY.

Grant K. & Perez L., 2018, DIVE into UDL: Immersive practices to develop expert learners, International Society for Technology in Education, Arlington, VA.

[Gonzalez S.L. & Dalton E.M.](#) (eds.), 2020, Universal access through inclusive instructional design: International perspectives on UDL, Routledge, New York, NY.

[Gonzalez S.L., Makokela Z. & Rodriguez L.](#), 2006, 'The social context of the special education debate in South Africa', European Journal of Special Needs Education 13, 72–85. 10.1080/08856250601301017 - DOI

Hass Institute , 2019, Targeted universalism: Policy and practice, viewed 25 March 2020, from <https://hassinstitute.berkley.edu/news-and-events/>

Harris L. & [Vuyt L.](#), 2020, 'Understanding how UDL can serve as a framework for instructional decisions', in [Gonzalez S. & Dalton E.](#) (eds.), Universal access through inclusive instructional design: International perspectives on UDL, pp. 267–269, Routledge, New York, NY.

Katz J., 2012, Teaching to diversity: The three-block model of universal design for learning, Portage & Main Press, Winnipeg.

Katz J., 2013, 'The Three-Block model of universal design for learning (UDL): Engaging students in inclusive education', Canadian Journal of Education 36, 153–194.

[Kuznetsov A. & Lazarus S.](#), 2001, South Africa: First steps in the development of an inclusive education system', Cambridge Journal of Education 31(3), 305–317. 10.1080/03057640120086585 - DOI

Mariais P., 2016, 'We can't believe what we see': Overcrowded classrooms through the eyes of student teachers', South African Journal of Education 36(2), 1–30. 10.15700/eng36n2a1201 - DOI

[McKenzie J., Kelly J. & Shanda N.](#), 2018, Starting where we are: Situational analysis of the educational needs of learners with severe to profound sensory or intellectual impairments in South Africa, viewed 03 July 2020, from http://www.shructar.co.za/sites/default/files/frames_tool/images/147/dive_

Moo G., 2008, 'Curriculum planning for all learners: Applying Universal Design for Learning (UDL) to a high school reading comprehension program', Preventing School Failure: Alternative Education for Children and Youth 52(2), 21–30. 10.3200/PFSF.52.2.21-30 - DOI

Metcalfe D., Evans C., Flynn H. & Williams J., 2009, 'Direct instruction + UDL = Access for diverse learners: How to plan and implement an effective multisensory spelling lesson', TEACHING Exceptional Children Plus 5(8), Article 2.

[Meyer A., Rose D.H. & Gordon D.](#), 2014, Universal design for learning: Theory and practice, CAST Professional Publishing, Wakefield, MA.

Perez L., Grant K. & [Dalton E.](#), 2016, 'Universal Design for Learning (UDL) and online learning', in [Byrnes-Southern S. & Graziano K.](#) (eds.), Online teaching methods: The essential handbook for K-12 teacher, pp. 186–193, Information Today, Inc, Medford, NJ.

[Roggeveen E.](#), 2020, 'Developing inclusive education in Ireland: The case for UDL in initial teacher education', in [Gonzalez S. & Dalton E.](#) (eds.), Universal access through inclusive instructional design: International perspectives on UDL, Routledge, New York, NY.

Rose D. & Meyer A., 2002, Teaching every child in the digital age, Association for Supervision and Curriculum Development, Alexandria, VA.

Song Y., 2017, To what extent is Universal Design for Learning "universal"? A case study in township special needs schools in South Africa', Disability and the Global South 3(1), 910–929.

Tomlinson C.A., 1999, The differentiated classroom: Responding to the needs of all learners, Pearson Education, Hoboken, NJ.

UNESCO , 2020, Global education monitoring report 2020: Inclusion and education: All means all, UNESCO, Paris, viewed 05 July 2020, from <http://unesdoc.unesco.org/ark:/48223/pf00000573718 - PMC - PubMed>

United Nations , 2006, Convention on the rights of persons with disabilities, viewed 04 July 2020, from <http://www.un.org/disability/documents/convention/convention-a.pdf> - PubMed

United Nations: Committee on the Rights of Persons with Disabilities , 2016, General comment No. 4, (2016) on the right to inclusive education, United Nations, New York, NY.

Gronseth, Dalton, Mackenzie, Rose,
Meyer y Katz...una y otra y otra vez...

Available online at www.jmle.org



The National Association for Media Literacy Education's
Journal of Media Literacy Education 9 (2), 17 - 29

***Beyond Universal Design for Learning: Guiding Principles
to Reduce Barriers to Digital & Media Literacy Competence***

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CAST, which served originally as a technical support center for students with special needs in Massachusetts was seeking a different path to support students' growth and development, one based on capitalizing students' strengths, rather than primarily remediating weaknesses. Vygotsky's work, and others, served as the foundation for CAST's development of the conceptual framework of UDL (Meyer & Rose, 1998; Orkwis & McLane, 1998; Rose & Meyer, 2002). Inspired by the earlier architectural concept of Universal Design (UD) of physical environments originally developed by the late Ron Mace (Center for Universal Design, 1997), the UDL framework for curriculum design is based on the three primary brain networks of recognition, strategy, and affect. These networks account for the broad diversity of individual learning styles, and closely correlate with the work of Vygotsky. The three core principles of UDL were developed from this foundation.



Algunos
papers

Multiple Intelligences



Moving beyond VAKT, Harvard psychologist Howard Gardner wrote a seminal book, *Frames of Mind*, which first introduced and then expanded his theory of human multiple intelligences. Gardner explains that the multiple intelligences, or competencies, that people have relate to their own unique set of aptitudes and, therefore, how they might prefer to learn and demonstrate their knowledge. Gardner's original core set of seven intelligences was initially published in *Frames of Mind* (1983), with two more intelligences added in his book, *Intelligence Reframed* (1999). The nine multiple intelligences are as follows:

1. Verbal-linguistic intelligence (well-developed verbal skills and sensitivity to the sounds, meanings, and rhythms of words)
2. Logical-mathematical intelligence (ability to think conceptually and abstractly, and capacity to discern logical and numerical patterns)
3. Spatial-visual intelligence (capacity to think in images and pictures, to visualize accurately and abstractly)
4. Bodily-kinesthetic intelligence (ability to control one's body movements and to handle objects skillfully)
5. Musical intelligence (ability to produce and appreciate rhythm, pitch, and timbre)
6. Interpersonal intelligence (capacity to detect and respond appropriately to the moods, motivations, and desires of others)
7. Intrapersonal (capacity to be self-aware and in tune with inner feelings, values, beliefs, and thinking processes)
8. Naturalist intelligence (ability to recognize and categorize plants, animals, and other objects in nature)
9. Existential intelligence (sensitivity and capacity to tackle deep questions about human existence such as: What is the meaning of life? Why do we die? How did we get here?)

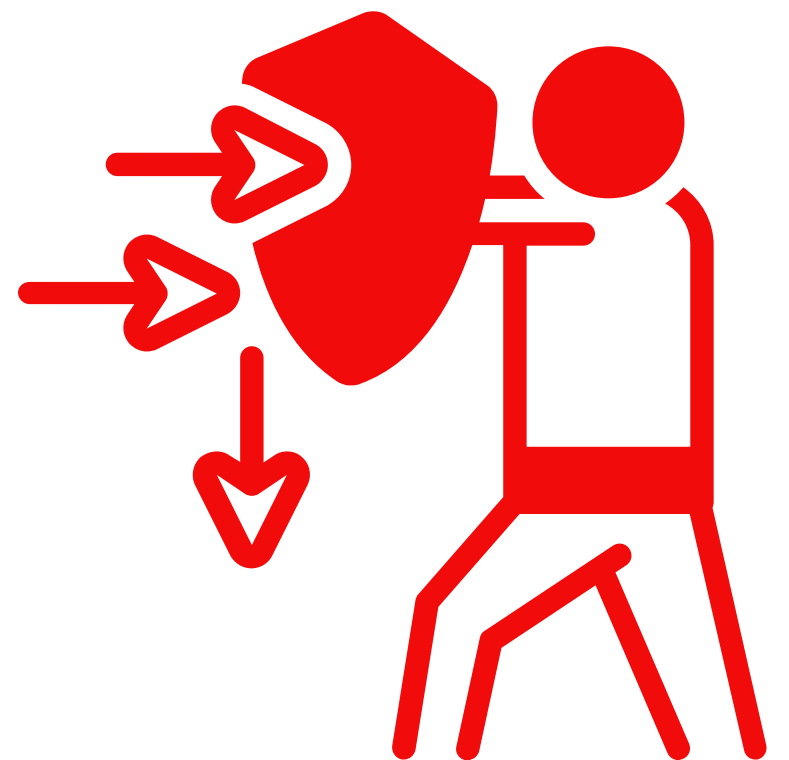
Algunos papers

Fuente: Gronseth, S. L. (2019). Universal Access Through Inclusive Instructional Design. Universal Access Through Inclusive instructional Design.
<https://doi.org/10.4324/9780429435515>

Los sustentos teóricos del DUA (antes vistos), propiciaron que en Chile, su implementación se operacionalizara en función de los "estilos de aprendizaje"



Las personas que defienden la propuesta del DUA, señalan que usar los estilos de aprendizaje en su implementación, es un error de interpretación. Sin embargo, en los papers que constituyen su evidencia, se incorporan en forma explícita.





No es de extrañar entonces que el neuromito más presente entre las y los profesores chilenos, sea el de los "estilos de aprendizaje"

ㄝ(ツ)ㄝ

Tabla 1. Ranking de neuromitos (docentes chilenos).

Estilos de aprendizaje

Neuromito	A favor (%)	En contra (%)	No lo sé (%)
Los estudiantes aprenden mejor cuando reciben información en su estilo de aprendizaje preferido (por ejemplo: auditivo, visual, kinestésico).	89.17	8.24	2.57
Está comprobado científicamente que existen múltiples tipos de inteligencias.	89.17	5.67	5.15
Sesiones cortas de ejercicios de coordinación pueden mejorar la integración de funciones cerebrales de los hemisferios izquierdo y derecho.	85.56	2.57	11.85
Diferencias en la dominancia hemisférica ("Cerebro izquierdo", "Cerebro derecho") pueden ayudar a explicar diferencias individuales entre estudiantes.	79.38	8.76	11.85

89%

Un decreto de ley, se cambia con otra ley.

Vamos a necesitar voluntad política para que la educación abra paso a la EVIDENCIA, desde donde se pueda nutrir la práctica educativa, para una mejor toma de decisiones pedagógicas.

Yo, ¡me siento optimista!



Escrito por Evelyn Cordero Roldán