

Deserts by Design

Accountability architecture, manufactured hermeneutical injustice, and the vanishing curriculum in segregated special education.

He learned the presidents from a chart at home. His school taught two subjects.

Reading and mathematics, and nothing else. No science, no history, no civics, no social studies. **Not a scheduling artifact, but the permanent shape of the program.** This paper is about why that shape exists.

The shape is not unique to one classroom. It is the predictable output of an accountability architecture that has governed American public education since 2002.

SOURCES No Child Left Behind Act (2002); Every Student Succeeds Act, 20 U.S.C. § 6301 et seq. (2015).

One statute defines the education, and measures a fraction of it.

ESSA DEFINES "WELL-ROUNDED"

Civics & government · history · geography · science · the arts · and more, the education every student is owed.

THE SAME LAW COUNTS

Reading · mathematics · (science, sparingly). **History, civics, social studies, geography: absent from the mandated assessments.**

The gap between what the statute defines and what it measures is the space in which the desert forms.

Untested hours convert into tested ones. Each conversion is locally rational.

The reductions fall hardest under improvement pressure, where scores are lowest, where poverty, English learners, and students with disabilities concentrate. The well-rounded subjects are delivered in inverse proportion to the pressure.

62% of districts increased elementary English or math time.

44% cut science, social studies, art, music, PE, lunch, or recess to fund it.

General education loses minutes. The self-contained room loses the subject.

GENERAL-EDUCATION SCHEDULE

Reading · math · a *diminished* science strand, because the master schedule still contains one.

SELF-CONTAINED SCHEDULE

Reading · mathematics · functional & life-skills blocks, **and nothing else.**

It is not a thinner version of the narrowing. It is the completed form of it.

THE LEFT HAND

Publishes a social-studies standard for these very students

An official instrument conceding, formally, that the subject is teachable to them.

vs

THE RIGHT HAND

Guarantees the subject is never delivered

The incentive design rewards converting the day into the two counted subjects. **Different offices, different documents.**

Every actor is behaving defensibly. The deletion is the cascade.

No design table contained anyone whose job was to ask what the incentive would do to the smallest, least visible unit in the system. **So moral argument addressed to individuals will not dissolve it**, only a change to the design, or an external obligation that overrides its incentives.

Drafters · state designers · administrators · principals · special educators, each intention defensible; the downstream effect invisible to all of them.

SOURCES Au (2007); McMurrer, Center on Education Policy (2007); Fitchett & Heafner (2010).

FRICKER'S CASE · IT ACCRETES

The concepts did not yet exist anywhere

A diffuse byproduct of unequal participation. Nobody manufactures it; at most, collective negligence.



THE MANUFACTURED VARIANT · IT IS BUILT

The concepts exist, and are withheld

Documentable, enumerable, reversible. Persisting after documentation, it supports a charge of **maintenance**.

The deleted subjects include the one that would let you name the deletion.

Science deleted	History deleted	Geography deleted	Civics deleted, and it is the subject that teaches you a right was violated.
--------------------	--------------------	----------------------	---

It manufactures the gap, and the inability to perceive the gap, concentrated on those least able to self-report.

One root, two opposite failures: needs read by visibility, not by need.

LOW VISIBILITY

Accommodation denied

"A person who needs so little must not really need it." The triviality of the request is held against it.

HIGH VISIBILITY

The person becomes the diagnosis

Only announced needs get serviced; the rest of personhood drops out. **A diagnosis does not take history class.**

The deleted content has already been delivered, engagingly, at consumer prices.

COMMERCIAL Discovery Tour Historian-curated <i>Assassin's Creed</i> worlds, peer-review evaluated, \$20 a seat.	CIVIC iCivics Justice O'Connor's free civics games, 145K teachers, 9M students.	PUBLIC America's Army · Ready To Learn Government already builds games for soldiers and media for literacy.
--	--	--

A rounding error against a single year's existing spending.

\$13.33

per student, one-time, a \$100M flagship budget ÷
7.5M children.

~\$133

per student, one-time, a \$1B moonshot across
many eras and subjects.

~1%

of one year's per-student special-ed spending, the realistic
program, one tenth of that.

The do-nothing baseline is not free. It is paid indefinitely, by the people least able to invoice anyone for it.

The proposal need not prove the path works. The authority must explain the desert.

- ✓ The literature is published.
- ✓ The commercial product shipped & was evaluated.
- ✓ The civic nonprofit scaled to 9M students.
- ✓ The price is a rounding error.
- ✓ The grant vehicle already exists.

"The deleted subjects include the one that would have given them the name."

The silence was not a judgment about the child, it was the output of a design. The only honest question left is not whether the path exists or what it costs, but **why the authority keeps choosing the desert for the children least able to ask.**

Placement and curriculum are independent variables. A literature that treats them as one keeps fixing the wrong one.

SOURCES Gilly, T. (2026). Deserts by Design. Real Safety AI Foundation, working paper (v0.4).

— REFERENCES & AUTHORITIES

Gilly, T. (2026). *Deserts by Design: Accountability Architecture, Manufactured Hermeneutical Injustice, and the Vanishing Curriculum in Segregated Special Education*. Working paper (v0.4), Real Safety AI Foundation.

Au, W. (2007). High-stakes testing and curricular control: A qualitative metasynthesis. <i>Educational Researcher</i> , 36(5), 258–267. https://doi.org/10.3102/0013189X07306523	Endrew F. v. Douglas County School District RE-1, 580 U.S. 386 (2017). Every Student Succeeds Act, 20 U.S.C. § 6301 et seq. (2015).
Baker, J. M., & Zigmond, N. (1995). The meaning and practice of inclusion for students with learning disabilities. <i>The Journal of Special Education</i> , 29(2), 163–180. https://doi.org/10.1177/002246699502900207	Éthier, M.-A., & Lefrançois, D. (2023). <i>Les usages pédagogiques des jeux vidéo Assassin’s Creed</i> . Presses de l’Université Laval. https://doi.org/10.1515/9782763757612
Bonifacic, I. (2020, May 14). Ubisoft’s educational Assassin’s Creed tours are free until May 21st. Engadget. https://www.engadget.com/ubisoft-ancient-greece-ancient-egypt-discovery-tours-free-1957495html	Fitchett, P. G., & Heafner, T. L. (2010). A national perspective on the effects of high-stakes testing and standardization on elementary social studies marginalization. <i>Theory & Research in Social Education</i> , 38(1), 114–130. https://doi.org/10.1080/00933104.2010.10473418
Chambers, J. G., Parrish, T. B., & Harr, J. J. (2004). What are we spending on special education services in the United States, 1999–2000? (Special Education Expenditure Project). American Institutes for Research. https://www.csef-air.org/publications/seep/national/AdvRpt1.pdf Encyclopaedia Britannica. (n.d.).America’s Army.In Britannica.Retrieved June 9, 2026, from https://www.britannica.com/topic/Americas-Army	Fricker, M. (2007). <i>Epistemic injustice: Power and the ethics of knowing</i> . Oxford University Press.
	Fuchs, D., & Fuchs, L. S. (1994). Inclusive schools movement and the radicalization of special education reform. <i>Exceptional Children</i> , 60(4), 294–309. https://doi.org/10.1177/001440299406000402

— REFERENCES & AUTHORITIES (CONTINUED)

Hinkle, A. R., Thurlow, M. L., Lazarus, S. S., & Strunk, K. J. (2022). State approaches to monitoring AA-AAAS participation decisions (NCEO Report 432). National Center on Educational Outcomes. iCivics. (n.d.). About: Our history. Retrieved June 9, 2026, from [https://vision.icivics.org/about/history/IndividualswithDisabilitiesEducationAct,20U.S.C.§1400etseq.\(2004\).](https://vision.icivics.org/about/history/IndividualswithDisabilitiesEducationAct,20U.S.C.§1400etseq.(2004).)

Kauffman, J. M. (1989). The Regular Education Initiative as Reagan-Bush education policy: A trickle-down theory of education of the hard-to-teach. *The Journal of Special Education*, 23(3), 256–278. <https://doi.org/10.1177/002246698902300303>

Kauffman, J. M., Gerber, M. M., & Semmel, M. I. (1988). Arguable assumptions underlying the Regular Education Initiative. *Journal of Learning Disabilities*, 21(1), 6–11. <https://doi.org/10.1177/002221948802100102>

Lazarus, S. S., & Quanbeck, M. K. (2023). The relationship between student placement and AA-AAAS participation rates (NCEO Report 439). National Center on Educational Outcomes.

McMurrer, J. (2007). NCLB year 5: Choices, changes, and challenges: Curriculum and instruction in the NCLB era (rev. December 2007). Center on Education Policy. Archived at <https://web.archive.org/web/20110612013220/http://www.cep-dc.org/displayDocument.cfm?DocumentID=312>

National Center for Education Statistics. (2024). Students with disabilities (Fast Facts). U.S. Department of Education. [https://nces.ed.gov/ipeds/data/ncesid/64NationalCenterforEducationStatistics.\(n.d.-a\).Studentswithdisabilities\(ConditionofEducationindicator\).U.S.DepartmentofEducation.RetrievedJune9,2026,fromhttps://nces.ed.gov/ipeds/data/ncesid/64NationalCenterforEducationStatistics.\(n.d.-b\).Expenditures\(FastFacts\).U.S.DepartmentofEducation.RetrievedJune9,2026,fromhttps://nces.ed.gov/fastfacts/display.asp?id=64NationalCenterforEducationStatistics.\(n.d.-c\).Expenditures\(FastFacts\).U.S.DepartmentofEducation.RetrievedJune9,2026,fromhttps://nces.ed.gov/fastfacts/display.asp?id=64NationalCenterforEducationStatistics.\(n.d.-d\).Alternateassessments:AA-AAAS.RetrievedJune9,2026,fromhttps://nceo.info/Assessments/aa-aas](https://nces.ed.gov/ipeds/data/ncesid/64NationalCenterforEducationStatistics.(n.d.-a).Studentswithdisabilities(ConditionofEducationindicator).U.S.DepartmentofEducation.RetrievedJune9,2026,fromhttps://nces.ed.gov/ipeds/data/ncesid/64NationalCenterforEducationStatistics.(n.d.-b).Expenditures(FastFacts).U.S.DepartmentofEducation.RetrievedJune9,2026,fromhttps://nces.ed.gov/fastfacts/display.asp?id=64NationalCenterforEducationStatistics.(n.d.-c).Expenditures(FastFacts).U.S.DepartmentofEducation.RetrievedJune9,2026,fromhttps://nces.ed.gov/fastfacts/display.asp?id=64NationalCenterforEducationStatistics.(n.d.-d).Alternateassessments:AA-AAAS.RetrievedJune9,2026,fromhttps://nceo.info/Assessments/aa-aas)

No Child Left Behind Act of 2001, Pub. L. No. 107-110, 115 Stat. 1425 (2002).

Oulitskaia, V. (2024). Using Assassin's Creed: Odyssey to teach Olympia as part of the Classical Civilisation A Level. *Journal of Learning Disabilities*, 57(1), 1–11. <https://doi.org/10.1017/S2058631024000400>

Péloquin, K., & Éthier, M.-A. (2023). The Discovery Tour as a mediated tool for teaching and learning history. In 'Assassin's Creed: Odyssey' (Ed. M.-A. Éthier, pp. 1–11). Cham: Springer. <https://doi.org/10.1515/9783111253275-008>

— REFERENCES & AUTHORITIES (CONTINUED)

Politopoulos, A., Mol, A. A. A., Boom, K. H. J., & Ariese, C. E. (2019). “History is our playground”: Action and authenticity in Assassin’s Creed: Odyssey. *Advances in Archaeological Practice*, 7(3), 317–323. <https://doi.org/10.1017/aap.2019.30>

Prince, M. J. (2017). Persons with invisible disabilities and workplace accommodation: Findings from a scoping literature review. *Journal of Vocational Rehabilitation*, 46(1), 75–86. <https://doi.org/10.3233/JVR-160844>

Rochat, Y. (2022). History and video games. In *Handbook of digital public history* (pp. 475–484). De Gruyter. <https://doi.org/10.1515/9783110430295-042>

Santuzzi, A. M., Waltz, P. R., Finkelstein, L. M., & Rupp, D. E. (2014). Invisible disabilities: Unique challenges for employees and organizations. *Industrial and Organizational Psychology*, 7(2), 204–219. <https://doi.org/10.1111/iops.12134>

Ubisoft. (2018, February 20). Assassin’s Creed Origins – Discovery Tour available now as free download. Ubisoft News. <https://news.ubisoft.com/en-gb/article/7yDbWvOpZLk1gAuRFHbQ3L/assassins-creed-origins>

Ubisoft. (2018, 2019, 2021). *Discovery Tour: Ancient Egypt; Discovery Tour: Ancient Greece; Discovery Tour: Viking Age* [Video game educational modes]. Ubisoft.

von Schrader, S., Malzer, V., & Bruyère, S. M. (2014). Perspectives on disability disclosure: The importance of employer practices and workplace climate. *Employee Responsibilities and Rights Journal*, 26(4), 237–255. <https://doi.org/10.1007/s10672-013-9227-9>