

The Long-Term Harm of Early Academic Training Peter Gray

A. Research Documenting Such Harm

- *Tennessee Preschool Experiment*. Academic preschool program for children in poverty. Compared those in program with those on wait list. By every measure, those in the program were doing worse by third grade than those who were not, and by 6th grade the difference was even greater.
- *German Kindergarten Experiment in 1970s*. By grade 4 those in play-based kindergartens outperformed those in academic kindergartens by every measure.
- *Florida Preschool Study in 1992*. By 4th grade children who had attended play-based preschool programs outperformed those who had attended academically oriented preschool programs on every academic measure.
- *Ypsilanti, Michigan, Experiment, 1960s – '80s*. Children randomly assigned to direct-instruction preschool showed more delinquency by age 15 and had higher rates of felony arrests by age 23 than those assigned to play-based preschool// Possible role of home visits.

B. Louis Benezet's Classic Experiment on Math Learning in Manchester, NH

Children not taught arithmetic until 6th grade performed as well as others on standard school arithmetic by the end of 6th grade and performed much better on story problems.

C. Difference Between Academic and Intellectual Skills; Why Intellectual Must Come First

-*Academic skills* are tried and true formal means of organizing, manipulating, or responding to specific categories of information to achieve certain ends. Can be taught by rote means.

-*Intellectual skills* have to do with a person's ways of reasoning, hypothesizing, and, in general, making sense of the world. These cannot be taught but are acquired by children through their own active exploration and thought about their experiences.

-Teaching academic skills before children are intellectually prepared for them can backfire. The learning is shallow and can interfere with subsequent understanding.

References

Some of my relevant essays, which include references to original research.

(You can find these essays by Googling Peter Gray followed by essay title.)

Long-term harm of early academic training.

How early academic training retards intellectual development.

When less is more: The case for less teaching of math in school.

Some other references

Durkin, K., Lipsey, M. W., Farran, D. C., & Wiesen, S. E. (2022). Effects of a statewide pre-kindergarten program on children's achievement and behavior through sixth grade. *Developmental Psychology*, 58, 470-484.

Benezet, L.P. (1935/1936). The teaching of Arithmetic: The Story of an Experiment. Originally published in *Journal of the National Education Association* in three parts. Vol. 24, #8, pp 241-244; Vol. 24, #9, p 301-303; & Vol. 25, #1, pp 7-8.

Marcon, R. A. 2002. "Moving up the grades: Relationship between preschool model and later school success." *Early Childhood Research & Practice* 4(1).

Schweinhart, L.J., & Weikart, D.P. 1997. The High/Scope Pre- school Curriculum Comparison Study through age 23. *Early Childhood Research Quarterly* 12, 117-143.

You can find pdfs of my academic articles at my [website](http://petergray.org) (petergray.org) and many of my essays about the role of play in education and development at my substack, [Play Makes Us Human](http://petergray.substack.com) (petergray.substack.com)