Strengthening Pennsylvania's Implementation of the Science of Reading through Teacher Preparation

Literacy is critical for success in school, work, and civic engagement. Research finds that reading failure can be reduced to fewer than 1 in 10 students when teachers provide scientifically based reading instruction.[1] In the wake of learning loss experienced in the COVID-19 pandemic, now more than ever, we must ensure aspiring teachers are prepared to teach children to read using scientifically based reading instruction.

The stakes for students in Pennsylvania

In Pennsylvania, only **34% of 4th grade students read proficiently** based on the most recent National Assessment of Education Progress (NAEP). That number falls precipitously for some of Pennsylvania's historically underserved students. This dismal data has nothing to do with the students and families and everything to do with **inequities in access to effective literacy instruction**.

Pennsylvania's Reading Data

Student group	# of students in Pennsylvania	% who read proficiently in 4th grade
ALL STUDENTS	1,731,734	34%
Hispanic students	237,422	20%
Black students	249,855	11%
English language learners	72,200	8%
Students with disabilities	338,713	11%
Students eligible for National School Lunch Program	782,049	18%

Teacher prep programs are key to implementing and sustaining science of reading at scale.

Are Pennsylvania's teacher prep programs ensuring aspiring teachers learn the most effective methods to teach reading?
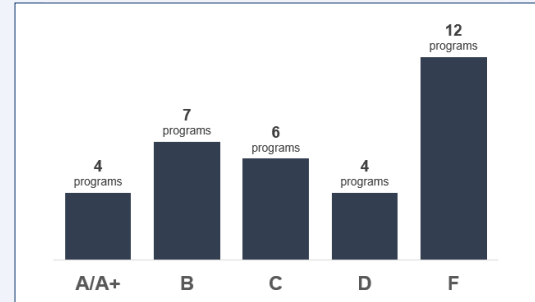
The National Council on Teacher Quality, a research and policy nonprofit, evaluated nearly 700 programs across the country, including 33 in Pennsylvania, on how well they prepare aspiring elementary teachers to teach reading.

This review considered attention to **the five core components of scientifically based reading instruction**—phonemic awareness, phonics, fluency, vocabulary, and comprehension—across four different instructional approaches (instructional hours, background materials, objective measures of knowledge, and opportunities to practice).

The review also deducted points when programs teach aspiring teachers content contrary to research-based practices; and considered whether programs provide instruction in how to support a range of learners (struggling readers, English language learners, and students who speak language varieties other than mainstream English).

1   See appendix for citation for this statement and data included throughout.

In Pennsylvania, 12% of the 33 programs evaluated earn an A for preparation in reading, meaning they adequately teach all five components of reading and provide little or no instruction on content contrary to research-based practices.

Pennsylvania ranks among the worst in the nation for the average number of components of reading its programs adequately address. In Pennsylvania:

- Programs are most likely to cover **comprehension** and least likely to cover **phonemic awareness.**
- **Four of 33 programs provide at least one practice opportunity** in each of these components.
- There are 15 programs (45%) in Pennsylvania that teach **multiple** techniques or approaches contrary to research-based practices, which can inhibit the reading progress of many students.
- Seventeen programs devote some instructional time to supporting **Struggling readers.**
- Nineteen programs devote some instructional time to supporting **English language learners.**

Better teacher preparation is essential to ensure all students effectively learn to read.

State policy question	Answer for Pennsylvania
Does Pennsylvania have standards for teacher prep programs that address all five core components of scientifically based reading?	Yes, the standards address all five core components with details related to the knowledge and skills needed to teach them
Does Pennsylvania require a licensure test that addresses reading?	Yes, the state requires a licensure test that addresses reading
What are the required or optional licensure tests that address reading?	Pennsylvania Educator Certification Test Grades Pre K - 4 (PECT)
Does Pennsylvania require the review of reading course syllabi as part of preparation program renewal?	Yes

"Every child has the right to read. Sending teachers into the classroom without the science behind how kids learn to read puts everyone in an unfair position. As teachers, we are in this profession to always do what is best and necessary. If we aren't properly taught by the institutions we put our trust and dollars into, we are made ineffective."

- Virginia Quinn-Mooney, First grade teacher

Recommendations for state leaders:

- Set specific, explicit, and comprehensive preparation standards for scientifically based reading instruction.
- Incorporate a specific evaluation of reading instruction in program renewal or reauthorization processes, and take action if programs are not aligned to the state's standards for scientifically based reading instruction.
- Require a reading licensure test aligned with scientifically based reading instruction for any PK–5 teachers to earn licensure, and publish the pass rates.
- Deploy a comprehensive strategy to implement scientifically-based reading instruction, and prioritize teacher prep.
- Use the bully pulpit to draw attention to the importance of teacher prep to sustain implementation of improved reading instruction.

*For more detail on these recommendations, visit **www.nctq.org/review/standard/reading-foundations**.*

Questions? Contact Shannon Holston, NCTQ Chief of Policy and Programs at shannon.holston@nctq.org.

Program grades in Pennsylvania

School	Program Level	Grade	Adequate coverage of core components: Graded (Up to 12 points per component; 8 points for adequate coverage; 4 or more contrary practices results in letter grade deduction)						Support for a range of learners: Ungraded (Up to 8 points per group)		
			Phonemic Aware-ness	Phonics	Fluency	Vocab-ulary	Compre-hension	Count of Contrary Practices (out of 9)	Struggling readers	ELLs	Speakers of language varieties
Alvernia University	UG	A	Yes (11 pts)	Yes (9 pts)	Yes (9 pts)	Yes (9 pts)	Yes (9 pts)	1	0 pts	8 pts	0 pts
Cabrini College	UG	F	No (4.12 pts)	No (4.55 pts)	No (5.25 pts)	No (4.69 pts)	No (5.75 pts)	4	0 pts	4 pts	0 pts
Cedar Crest College	G	D	No (6.64 pts)	Yes (9 pts)	Yes (9 pts)	No (3 pts)	No (7 pts)	0	2 pts	2 pts	2 pts
Cheyney University of Pennsylvania	UG	D	No (3 pts)	No (7.12 pts)	No (3 pts)	Yes (9 pts)	Yes (8.5 pts)	0	2 pts	2 pts	2 pts
Commonwealth University of Pennsylvania: Bloomsburg Campus	UG	A	Yes (10.41 pts)	Yes (11 pts)	Yes (11 pts)	Yes (10.44 pts)	Yes (11 pts)	1	4 pts	2 pts	2 pts
Commonwealth University of Pennsylvania: Bloomsburg Campus	G	C	Yes (8.57 pts)	Yes (8.25 pts)	Yes (8 pts)	No (7.5 pts)	No (7 pts)	0	0 pts	0 pts	0 pts

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National Council on Teacher Quality

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			Phonemic Aware-ness	Phonics	Fluency	Vocab-ulary	Compre-hension	Count of Contrary Practices (out of 9)	Struggling readers	ELLs	Speakers of language varieties
Commonwealth University of Pennsylvania: Lock Haven Campus	UG	B	No (6.79 pts)	Yes (9 pts)	Yes (9 pts)	Yes (9 pts)	Yes (10 pts)	0	2 pts	4 pts	0 pts
Commonwealth University of Pennsylvania: Mansfield Campus	UG	F	No (6.75 pts)	No (6.5 pts)	No (6.75 pts)	No (7 pts)	Yes (9.83 pts)	3	0 pts	3.5 pts	0 pts
Duquesne University	UG	F	No (0 pts)	No (2 pts)	No (0 pts)	No (5 pts)	No (5 pts)	0	0 pts	0 pts	0 pts
East Stroudsburg University of Pennsylvania	UG	D	No (7.36 pts)	No (7.72 pts)	Yes (8.5 pts)	Yes (12 pts)	No (5.17 pts)	1	2 pts	2 pts	0 pts
Eastern University	UG	F	No (6.64 pts)	No (7.97 pts)	No (6.12 pts)	No (7.25 pts)	Yes (8 pts)	2	2 pts	6 pts	4 pts
Eastern University	G	C	Yes (8.64 pts)	Yes (10.12 pts)	No (7.12 pts)	No (7.5 pts)	Yes (8 pts)	0	0 pts	0 pts	0 pts
Elizabethtown College	UG	F	No (7.82 pts)	Yes (8.81 pts)	No (4.12 pts)	No (4.5 pts)	No (5 pts)	1	0 pts	0 pts	0 pts
Gannon University	UG	A	Yes (9.12 pts)	Yes (10.12 pts)	Yes (9 pts)	Yes (12 pts)	Yes (12 pts)	1	6 pts	4 pts	0 pts
Geneva College	UG	B	Yes (8.3 pts)	Yes (9 pts)	Yes (8.25 pts)	Yes (11 pts)	Yes (12 pts)	5	4 pts	2.25 pts	0 pts
Grove City College	UG	B	Yes (9.5 pts)	Yes (12 pts)	No (7.5 pts)	Yes (8.5 pts)	Yes (11 pts)	0	2.75 pts	2.5 pts	0 pts
Indiana University of Pennsylvania	UG	C	No (6.93 pts)	Yes (8 pts)	Yes (9 pts)	Yes (11 pts)	Yes (11 pts)	6	8 pts	4.75 pts	4 pts
Juniata College	UG	B	Yes (9 pts)	Yes (9.31 pts)	Yes (10.88 pts)	Yes (12 pts)	No (6.92 pts)	1	8 pts	4 pts	6 pts
Kutztown University of Pennsylvania	UG	D	Yes (9.77 pts)	Yes (10.88 pts)	No (7.5 pts)	No (7.5 pts)	Yes (12 pts)	6	8 pts	4 pts	2 pts
Lincoln University of Pennsylvania	G	F	No (3.43 pts)	No (5.69 pts)	No (7 pts)	No (7.25 pts)	Yes (9 pts)	0	3.75 pts	4 pts	2 pts
Messiah University	UG	F	No (3.43 pts)	No (3.38 pts)	No (4.5 pts)	No (6 pts)	No (6.83 pts)	1	2 pts	0 pts	0 pts

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			Phonemic Awareness	Phonics	Fluency	Vocabulary	Comprehension	Count of Contrary Practices (out of 9)	Struggling readers	ELLs	Speakers of language varieties
Millersville University of Pennsylvania	UG	C	No (4.14 pts)	No (5.62 pts)	Yes (8.25 pts)	Yes (8.25 pts)	Yes (9.5 pts)	3	2.5 pts	5 pts	0 pts
Misericordia University	UG	B	Yes (9 pts)	Yes (9 pts)	Yes (9 pts)	No (7.69 pts)	Yes (8.62 pts)	2	4 pts	0 pts	0 pts
Neumann University	UG	B	Yes (9.18 pts)	Yes (12 pts)	Yes (11 pts)	Yes (10 pts)	Yes (12 pts)	7	4 pts	2.75 pts	0 pts
Point Park University	UG	F	No (7.29 pts)	No (6.75 pts)	No (6 pts)	Yes (8.25 pts)	No (6 pts)	4	2.75 pts	0 pts	0 pts
Robert Morris University	UG	C	No (6.75 pts)	No (7 pts)	Yes (9 pts)	Yes (9 pts)	Yes (9 pts)	0	6 pts	2.75 pts	2 pts
Saint Francis University	UG	F	No (7.61 pts)	No (6.72 pts)	No (7.5 pts)	No (7.5 pts)	Yes (8.5 pts)	3	5 pts	6 pts	0 pts
Shippensburg University of Pennsylvania	UG	F	No (5.04 pts)	No (7.5 pts)	No (6.75 pts)	No (6.12 pts)	No (6 pts)	3	4.33 pts	5 pts	2 pts
Shippensburg University of Pennsylvania	G	C	No (7.61 pts)	Yes (8.25 pts)	Yes (8.25 pts)	Yes (8 pts)	No (6.92 pts)	1	5.5 pts	2 pts	2 pts
Slippery Rock University of Pennsylvania	UG	F	No (4.11 pts)	No (7.45 pts)	No (6.19 pts)	No (6.94 pts)	No (6 pts)	6	2 pts	8 pts	2 pts
University of Pennsylvania	G	F	No (0.64 pts)	No (0.84 pts)	No (0.56 pts)	No (0 pts)	No (5.17 pts)	2	0 pts	2 pts	1.5 pts
West Chester University of Pennsylvania	UG	B	No (7.64 pts)	Yes (12 pts)	Yes (12 pts)	Yes (11 pts)	Yes (11 pts)	2	4 pts	4.75 pts	0 pts
Widener University	UG	A	Yes (11.4 pts)	Yes (11 pts)	Yes (12 pts)	Yes (12 pts)	Yes (11.4 pts)	1	8 pts	5.5 pts	2 pts

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