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Strategies for strengthening teacher self-efficacy

Findings from a meta-analysis with over 11,000 teachers show that training programs can improve teacher self-efficacy.



A summary of findings from
Täschner and colleagues, 2024

This report summarizes findings from: “‘Yes, I Can!’ A Systematic Review and Meta-Analysis of Intervention Studies Promoting Teacher Self-Efficacy”

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Täschner, J., Dicke, T., Reinhold, S., & Holzberger, D. (2024). “Yes, I Can!” A Systematic Review and Meta-Analysis of Intervention Studies Promoting Teacher Self-Efficacy. *Review of Educational Research*, <https://doi.org/10.3102/00346543231221499>.

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Rising turnover rates have increased the need for teacher support strategies.

Teacher turnover increased 4 percentage points above pre-COVID-19 levels, reaching 10 percent nationally at the end of the 2021-2022 school year.¹

Recent data from eight states show that teacher turnover rates in 2023 had reached the highest point in at least five years.²

Teacher turnover has been linked to lower math and reading scores, particularly in schools with greater proportions of low-performing and/or Black students.³

Schools can help support teachers (and their students) by offering education and training to support teachers' self-efficacy.

Teachers' self-efficacy is defined as teachers' belief in their ability to successfully perform teaching-specific tasks.



Teacher self-efficacy has been linked to a wide range of beneficial outcomes.⁴

Teacher self-efficacy

Teacher outcomes

- More job satisfaction
- More commitment to teaching
- Less emotional exhaustion
- Fewer stress symptoms
- Higher instructional quality
- Greater differentiated instruction
- More innovative pedagogy

Student outcomes

- Greater engagement in class
- Better relationships with teachers
- Higher academic achievement



How well do these programs work?


This review included 115 studies representing findings from 11,284 pre-service and in-service teachers. There was no evidence of differences in findings between pre- and in-service teachers.

On average, training programs **improved teachers' self-efficacy**, regardless of teachers' career stage.

68.1% of teachers in the training programs had higher self-efficacy compared to the average control group teacher.
g = 0.47, RVE SE = 0.04, CI [0.40, 0.54], p < .0001

90% chance that training programs will increase self-efficacy for teachers in future programs.
Assuming teachers are similar to those in the review, you are more likely than not to benefit from implementing a similar training program.

Training programs that included a **moment of reflection** showed greater benefits on teacher self-efficacy than interventions without such a moment.

 **Moment of Reflection** = Taking time for introspection during a training program

Included reflection: g = 0.71, RVE SE = 0.11, CI [0.50, 0.93]
Did not include reflection: g = 0.29, RVE SE = 0.10, CI [0.10, 0.49]

Four key sources of self-efficacy that programs can target



Mastery Experience

Gaining expertise by actively doing something



Vicarious Experiences

Observing a model doing something



Social Persuasion

Receiving verbal support for doing a specific activity



Physiological & Emotional Reactions

Using physical and emotional reactions to gauge confidence in a situation



Activities for strengthening teacher self-efficacy

The authors compiled recommended activities related to each of the four sources of teacher self-efficacy.

MASTERY EXPERIENCE

Gaining expertise by actively doing something



Examples activities:

- Role plays
- Internships or practicums
- Mini-lesson instruction to peers
- Micro-teaching

VICARIOUS EXPERIENCES

Observing a model doing something



Example activities:

- Videotaped teaching models
- Observation of peers and experienced teachers
- Vignettes

SOCIAL PERSUASION

Receiving verbal support for doing a specific activity



Examples activities:

- Discussion with colleagues or peers
- Feedback from peers, experienced teachers, or academic staff
- Coaching from peers or experienced teachers
- Collaboration with peers or experienced teachers

PHYSIOLOGICAL & EMOTIONAL REACTIONS

Using physical and emotional reactions to gauge confidence in a situation



Example activities:

- Yoga
- Meditation
- Breathing techniques
- Other types of mindfulness exercises

Strategies for strengthening teacher self-efficacy

Along with the previously listed activities, the authors recommend:

- Providing ample opportunity for teachers to practice core teaching strategies and observe others implementing those strategies
 - Examples:
 - [High-Leverage Practices | TeachingWorks](#)
 - [Core Teaching Practices | Michigan Department of Education](#)
- Offering opportunities for classroom visits and conversations with colleagues or instructional coaches
- Prioritizing time for self-reflection during education and training events



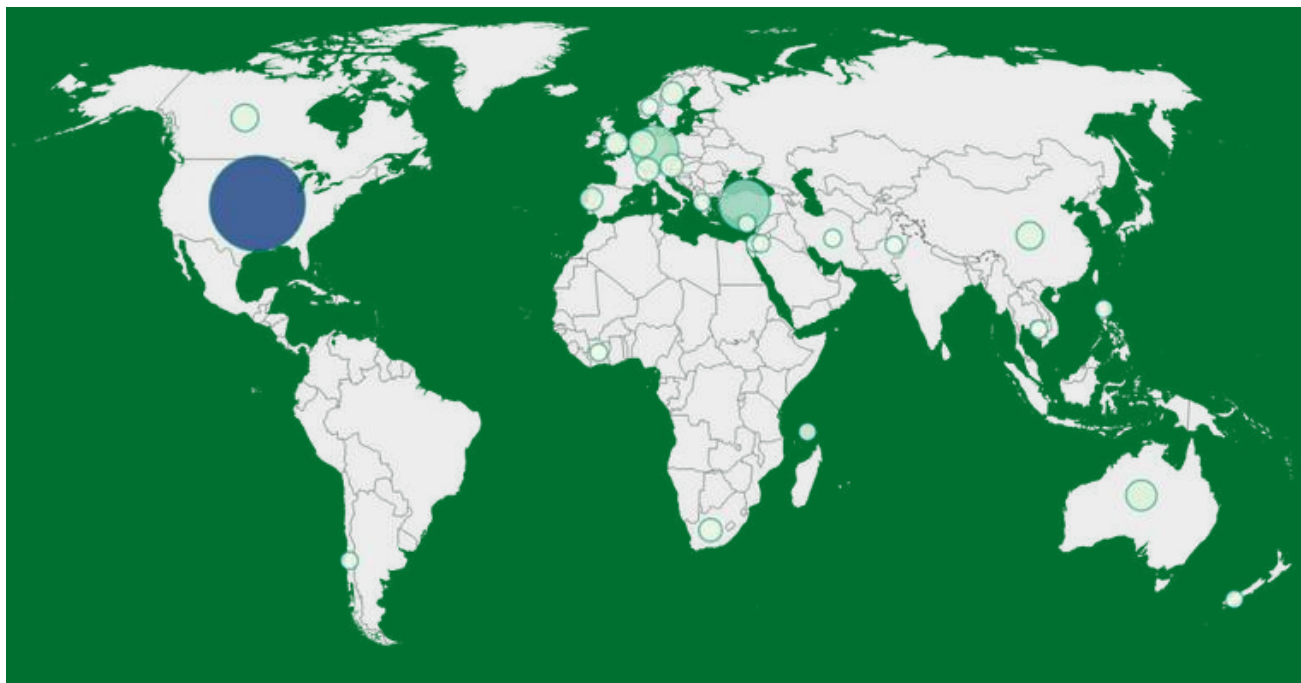
Which teachers, schools, and programs were included in this study?

The analysis included 115 representing 11,284 pre-service and in-service teachers

Schools



Most studies took place in U.S. schools.



A larger dot indicates more studies in a given location.

United States: 50
Turkey: 13
Germany: 11
Australia: 4
Canada: 3
China: 3
Netherlands: 3

Austria: 2
England: 2
Portugal: 2
South Africa: 2
Sweden: 2
Switzerland: 2

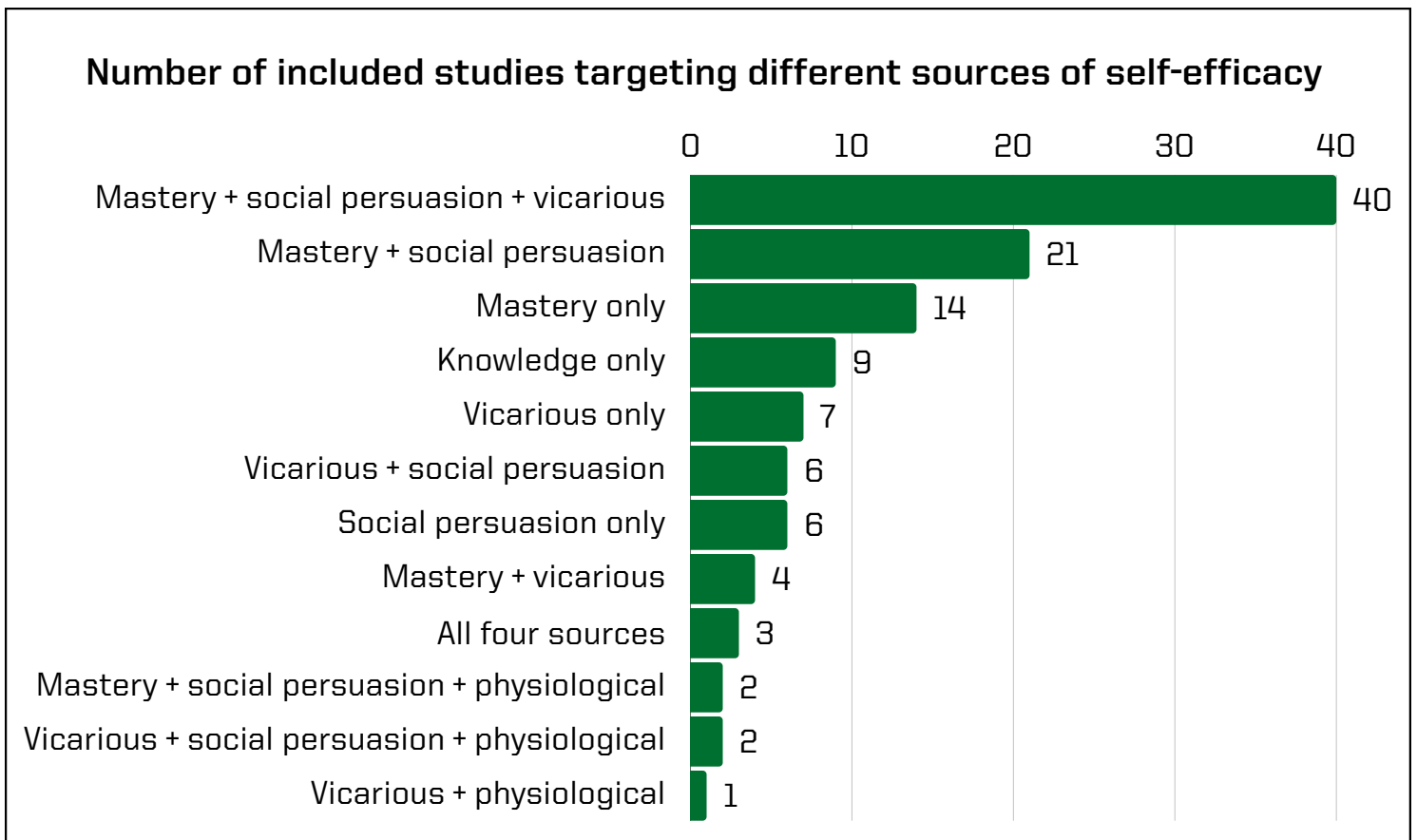
Countries with one study:

Cambodia
Chile
Cote d'Ivoire
Cyprus
Greece
Iran
Israel
Jordan
New Zealand
Norway
Pakistan
Philippines
Seychelles

Programs

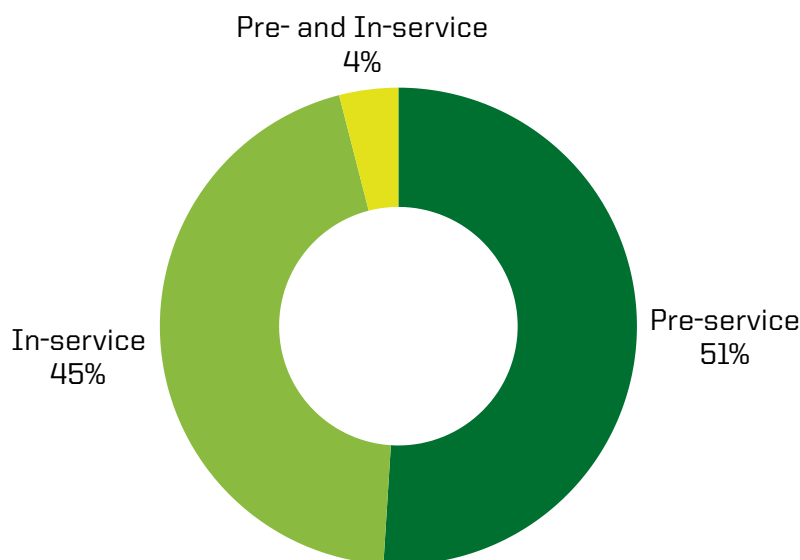
The authors defined included training programs as “all organized learning opportunities that differ from the everyday experiences of pre- and in-service teachers.”

Most studies included programs that targeted a combination of sources of self-efficacy.



Note: No studies targeted only physiological reactions. Moments of reflection were mentioned in 66 studies.

Which teachers were included in this study?



Methods

5,032 articles from initial search

896 articles screened for full text

115 articles included

Additional analyses

The authors conducted a variety of additional analyses to check the robustness of findings. These included considerations such as teachers' in-service vs pre-service status, different combinations of self-efficacy sources targeted by the program, and intervention duration. More information can be found in the supplemental materials included with the article and on the Open Science Framework: <https://osf.io/65vfg/>

Limitations to Note

Less than half of the 115 studies reached a study quality rating of at least two points out of four possible points ($n = 55$). However, study quality did not significantly moderate the programs' effects ($p = 0.18$).

Analyses indicated an above-average proportion of studies with large samples and positive effect sizes and missed smaller samples with larger standard errors and studies with negative effect sizes. The overall effect size might thus overestimate the true effect.

References:

1. [Educator Turnover Has Markedly Increased, but Districts Have Taken Actions to Boost Teacher Ranks: Selected Findings from the Sixth American School District Panel Survey | RAND](#)
 2. [More teachers are quitting than usual, driven by stress, politics, data shows \(usatoday.com\)](#)
 3. Ronfeldt, M., Loeb, S., Wyckoff, J. (2013). How teacher turnover harms student achievement. *American Educational Research Journal*, 50(1), 4-36.
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For a complete list of references documenting these benefits, see page 3 of the original article.



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