Supporting Trainers Who Build Special Education Teacher Capacity for Comprehensive Academic Instruction

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Background

SETTT for Success is a system for designing and delivering effective professional development. It features technology-based supports for trainers who provide professional development to teachers of students with significant cognitive disabilities. The project's ultimate goal is to support change in teaching practice in order to improve the quality of academic instruction for students with the most significant cognitive disabilities -- those who take statewide alternate assessments.

The purpose of this study was to evaluate the impact of SETTT for Success on trainer knowledge and PD design.

Research Questions

1. What impact does SETTT for Success have on trainers' TPACK+ knowledge?
2. What impact does SETTT for Success have on trainers' design of PD for educators?
3. What are educators' reactions to the PD conducted by trainers?

This poster describes the methods and results of this study.

Methods

Trainer Activities

Trainers used the SETTT for Success PD cycle to design, implement and evaluate their PD. The PD cycle is grounded in the ADDIE framework and allows flexibility and personalization depending on the trainers' local context.

Table 1. SETTT for Success PD cycle: Trainers Use ADDIE SETTT Go!

Analyze	Design	Develop	Implement	Evaluate
• Use student assessment data to understand student needs • Evaluate local constraints and opportunities	• Draft and refine teacher PD goals • Determine how to evaluate the effectiveness of the PD	• Create effective, academic-focused teacher PD • Plan learning activities that address teacher PD goal	• Deliver the PD	• Interpret post-PD data to evaluate the effectiveness of the PD

Trainer Supports

Trainers have several supports for implementing the SETTT for Success PD cycle.

- A curated, open-access **resource collection** that supports trainers' own learning, teacher PD, and resources that teachers may use with their students
- Nine self-directed **learning modules** for trainers to learn how to design, develop, implement, and evaluate PD
- Virtual **coaching** for additional support in all PD cycle phases
- A **community of practice** (COP) to share their learning and grow their expertise

Participants

- Included trainers of teachers of students with ESN; seven sites in three states
- Fourteen trainers completed project activities in at least 1 year during a 2-year pilot intervention:
  - » Cohort A comprised eight trainers who collaborated on codesign of the model in a previous project phase and continued into the pilot intervention.
  - » Cohort B comprised seven trainers in new sites that started during the pilot phase.
- Most were from urban schools ($n = 8$), while others were from rural schools ($n = 3$) and suburban schools ($n = 1$).
- Roles of trainers included classroom teacher, teacher leader, building administrator, district staff, instructional coach, district representative, regional education agency staff, state or regional agency staff, and other (e.g., alternate assessment lead, special education coordinator).

Measures

TPACK+ Knowledge Survey

- Assessed trainer knowledge of TPACK+ components as applied to teaching scenarios
- Adapted from Archambault and Crippen's (2009) TPACK instrument to include UDL
- 5-point Likert scale (1 = *poor* to 5 = *excellent*) to rate their knowledge of how to complete each activity associated with teaching teachers

PD Evaluation Rubric

- Evaluated the extent to which trainers applied key concepts from the SETTT for Success PD approach to the educator PD they provided
- Consisted of criteria organized by phases of the SETTT PD cycle and rated on a 3-point scale (*not apparent*, *emerging*, *evident*)
- Applied to artifacts trainers produced during the PD cycle

Educator Reactions to PD

- One set of common anchor items was used to evaluate participant reactions to PD
- Assessed perceived importance of the content, whether the PD showed trainers new ideas to improve their work with students, whether the PD was worth their time and effort, and their intent to apply what they learned in their practice

Results

Trainers

- Increased their TPACK+ knowledge and demonstrated they could apply what they learned to design PD

Educators attending the PD

- Reported the PD experiences as valuable; most reported they intended to apply what they had learned

What impact does SETTT for Success have on trainers' TPACK+ knowledge?

Table 2. Means and Standard Deviations of TPACK+ Pre- and Posttest Scores, by Cohort

Cohort and TPACK+ component	Pretest score	Year 1 posttest score	Year 2 posttest score	Year 3 posttest score	r
Cohort A					
N	8	8	4	5	
PK	3.9 (0.4)	4.1 (0.5)	4.1 (0.8)	4.2 (0.2)	.51
TK	2.9 (1.1)	3.4 (0.7)	3.8 (0.3)	3.9 (0.3)	.51
CK	3.3 (0.8)	4.3 (0.9)	4.0 (0.0)	4.3 (0.5)	.62
TCK	3.3 (0.7)	3.9 (0.8)	4.1 (0.5)	4.4 (0.3)	.78
PCK	3.7 (0.5)	4.1 (0.6)	4.2 (0.4)	4.5 (0.3)	.72
TPK	3.3 (0.6)	3.7 (0.8)	4.1 (0.2)	4.2 (0.4)	.64
TPCK	3.3 (0.8)	3.7 (0.6)	3.8 (0.3)	4.3 (0.3)	.50
Cohort B [a]					
N	5	5	4		
PK	3.5 (0.3)	4.1 (0.3)	4.1 (0.6)		.46
TK	3.1 (0.5)	3.5 (0.7)	3.8 (0.8)		.30
CK	4.0 (0.3)	4.3 (0.4)	4.3 (0.4)		.47
TCK	3.1 (0.3)	3.9 (0.5)	4.1 (0.5)		.79
PCK	3.6 (0.3)	4.1 (0.5)	4.3 (0.4)		.78
TPK	3.0 (0.5)	3.8 (0.6)	4.3 (0.4)		.84
TPCK	3.5 (0.8)	4.1 (0.6)	3.9 (0.7)		.21

Note. Standard deviations are presented in parentheses. PK = pedagogical knowledge, TK = technological knowledge, CK = content knowledge, TCK = technological content knowledge, PCK = pedagogical content knowledge, TPK = technological pedagogical knowledge, TPCK = technological pedagogical content knowledge. *r* = associated effect size for the mean difference between the pretest and last posttest

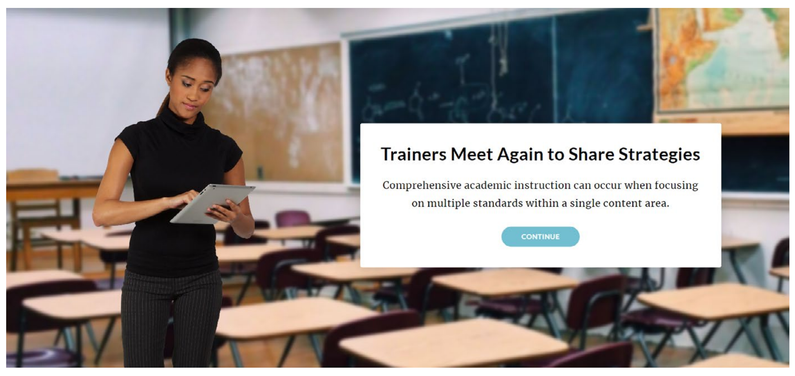
[a] Cohort B started a year later and did not have a third posttest.

What impact does SETTT for Success have on trainers' design of PD for educators?

Table 3. Rubric Results for Professional Development (PD) Design (N = 11 PD Cycles)

Criterion	*Not evident*	*Emerging*	*Evident*
The teacher's learning goals directly relate to local opportunities and constraints.	1		10
The teacher's learning goals are related to student-achievement data. [a]	2	1	7
The teacher's learning goals consider what knowledge, attitudes, skills, aspirations, or behaviors need to change for teachers to improve academic instruction.		2	9
The teacher's learning goals are specific and measurable.			11
The teacher's learning goals build teacher capacity for future comprehensive academic instruction.		2	9
The PD plan assures teacher engagement with the PD content through active learning strategies.	1	3	7
The PD plan includes high-quality resources that support attainment of the teacher's learning goals.		2	9
Trainers delivered the sessions as specified in the PD plan. [a]		1	9
The trainer implemented the steps of the evaluation plan. [a]	1	1	8
The trainer used the evaluation results to consider the success of the implemented PD. [a]	1	1	8

Note. [a] One observation is missing for these criteria ($N = 10$).



Screenshot from a SETTT self-directed module

What are educators' reactions to the PD conducted by trainers?

Table 4. Professional Development (PD) Results of Session-Evaluation Survey

Survey statement	A/SA n	A/SA %	D/SD n	D/SD %
The PD experience addressed content that is important for professionals working with students with significant cognitive disabilities.	87	98.9	1	1.1
The PD experience presented me with new ideas to improve my work with students with significant cognitive disabilities.	82	96.5	3	3.5
I intend to apply what I learned in this PD experience to my professional practice.	90	97.8	2	2.2
Completing this PD experience was worth my time and effort.	85	92.4	7	7.6

Note. A/SA = *agree* or *strongly agree*; D/SD = *disagree* or *strongly disagree*.

Implications

- The SETTT for Success approach may be scaled for more teachers and their students.
  - » Potential value in teaching trainers a process for planning and evaluating PD, such as SETTT for Success; may have potential to scale across local and state educational agencies to support teachers, particularly when coaching for teachers is not possible.
- Call for future research to identify efficient and effective supports for sustained classroom implementation of multiple instructional practices (Simonsen et al., 2025).
  - » Includes approaches to designing professional learning to support trainers in providing in-service PD; follow-up support that leads to long-term teacher change and implementation of multiple effective instructional practices.

Additional Information

SETTT website
settt.atlas4learning.org

Accessible PDF

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