



6-6-2022

Examining the implementation of Teacher–Child Interaction Training-Universal in public schools

Catherine DeCarlo Santiago
Loyola University Chicago, csantiago4@luc.edu


Yvita Bustos
Loyola University Chicago, ybustos@luc.edu

Susana Sosa
Loyola University Chicago, ssosa@luc.edu

Roxanna Flores Toussaint
Loyola University Chicago

Sarah Gebhardt
Glenview School District 34, Glenview

Follow this and additional works at: https://ecommons.luc.edu/psychology_facpubs

 *See next page for additional authors*
Part of the [Psychology Commons](#)

Recommended Citation

Santiago, Catherine DeCarlo; Bustos, Yvita; Sosa, Susana; Toussaint, Roxanna Flores; Gebhardt, Sarah; and Stern, David. Examining the implementation of Teacher–Child Interaction Training-Universal in public schools. *Psychology in the Schools*, 59, 11: 2208-2228, 2022. Retrieved from Loyola eCommons, Psychology: Faculty Publications and Other Works, <http://dx.doi.org/10.1002/pits.22753>

This Article is brought to you for free and open access by the Faculty Publications and Other Works by Department at Loyola eCommons. It has been accepted for inclusion in Psychology: Faculty Publications and Other Works by an authorized administrator of Loyola eCommons. For more information, please contact ecommons@luc.edu.



This work is licensed under a [Creative Commons Attribution-NonCommercial-No Derivative Works 4.0 International License](#).

© 2022 The Authors. *Psychology in the Schools* published by Wiley Periodicals LLC.

Authors

Catherine DeCarlo Santiago, Yvita Bustos, Susana Sosa, Roxanna Flores Toussaint, Sarah Gebhardt, and David Stern

Examining the implementation of Teacher–Child Interaction Training–Universal in public schools

Catherine DeCarlo Santiago¹  | Yvita Bustos¹ | Susana S. Sosa¹ | Sarah A. Jolie¹ | Roxanna Flores Toussaint¹ | Sarah Gebhardt² | David Stern³ | Karen S. Budd³

¹Department of Psychology, Loyola University Chicago, Chicago, Illinois, USA

²Glenview School District 34, Glenview, Illinois, USA

³LearnVentures LLC, Oak Park, Illinois, USA

Correspondence

Catherine DeCarlo Santiago, Department of Psychology, Loyola University Chicago, Chicago, IL 60660, USA.

Email: csantiago4@luc.edu

Funding information

Illinois Children's Healthcare Foundation

Abstract

The Teacher–Child Interaction Training–Universal (TCIT-U) is a professional development program for teachers that promotes positive relational interactions and strengthens classroom management. This study examines the implementation of TCIT-U in a public school district to guide future implementation and sustainability. This study uses qualitative methods to examine the implementation of TCIT-U across preschool through second-grade classrooms in a suburban public school district in Illinois, United States. Eight teachers and five coaches participated in focus groups, while three administrators completed interviews. Qualitative data from focus groups and interviews are supplemented by quantitative data on satisfaction, teacher sense of efficacy, teacher observations, and school records. Results demonstrated high levels of acceptability, good feasibility, high satisfaction, and several notable improvements across teachers and students, such as improved teachers' confidence and self-efficacy in managing classrooms. Nevertheless, there were implementation challenges, including timing, competing demands, and district priorities. The results from this study offer guidance for

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2022 The Authors. *Psychology in the Schools* published by Wiley Periodicals LLC.

future implementation of TCIT-U as an acceptable, feasible, and universal intervention.

KEYWORDS

implementation, mixed methods, qualitative, Teacher–Child Interaction Training

1 | INTRODUCTION

Research suggests that nearly 25% of elementary aged children have emotional or behavioral difficulties ranging from minor to severe (Simon et al., 2015). Furthermore, approximately 50% of these children do not receive any services (Simon et al., 2015). These emotional and behavioral difficulties often continue into later childhood (Shaw, 2013) and interfere with both academic and social-emotional development (Moilanen et al., 2010). Thus, there is a need for early interventions to reduce the number of children who experience difficulties and to provide support to children showing early signs of such difficulties. Universal and preventive interventions with young children help to ensure that all children receive supports needed for healthy development across social-emotional and academic domains (Durlak et al., 2011). School and classroom interventions improve access to supports for children who might not otherwise receive interventions (Jaycox et al., 2010; Simon et al., 2015).

Teacher–Child Interaction Training–Universal (TCIT-U) is a professional development program for teachers aimed at strengthening positive relationships and classroom management (Budd et al., 2016). TCIT-U was adapted from Parent–Child Interaction Therapy (PCIT), which is an effective, evidence-based treatment program for children between the ages of 2 and 7 with behavioral concerns (Ward et al., 2016). TCIT-U builds upon conceptual principles that are the foundation of PCIT, including adult–child attachment and social learning theories, and applies these within the classroom setting (Zisser-Nathenson et al., 2018). Similar to PCIT, TCIT-U includes two phases, child-directed interaction (CDI) and teacher-directed interaction (TDI). In the CDI phase, teachers learn how to reinforce behaviors using positive statements and responsive communication (Budd et al., 2016). In the TDI phase, teachers learn how to provide effective, direct instructions and consistent follow through, and how to implement disciplinary procedures for severe behaviors (i.e., aggressive, destructive behaviors; Budd et al., 2016). TCIT-U teachers receive didactic instruction regarding specific skills for each phase, followed by live coaching sessions in which teachers receive immediate feedback on their skills (Budd et al., 2016). PCIT and TCIT-U are both data-driven interventions with consistent observations of skills to inform coaching goals to progress toward mastery of the CDI and TDI skills.

Furthermore, TCIT-U follows a *Train-the-Trainer* Model, which is utilized to support sustainability long-term. TCIT-U's Train-the-Trainer model supports school professionals in developing the expertise to train and implement TCIT-U independently after initial training and consultation. Utilizing this model, a local team is trained through an initial workshop, on-site visits during the delivery of TCIT-U with an initial cohort of teachers, ongoing consultation regarding teacher and child progress, live coaching, and competency checks showing understanding and skills in delivering TCIT-U with fidelity. Consultation as needed is provided with a second cohort of teachers. In this way, sustainability is built into the TCIT-U model and builds local capacity and infrastructure to promote ongoing implementation of TCIT-U.

Evidence suggests that TCIT-U promotes positive teacher–student relational interactions and strengthens classroom management, creating a supportive context that mitigates risk related to poverty, stress, learning difficulties, or trauma (Gershenson et al., 2010). TCIT-U has shown promise in promoting self-regulation and reducing behavioral concerns among young children (Budd et al., 2016). For example, TCIT-U has produced overall improvement in social-emotional skills during a 3-month follow-up among children who have been maltreated (Kanine et al., 2018) and an increase in total protective factors among at risk children (Garbacz et al., 2014). Teachers also benefit from TCIT-U as it helps prevent burnout due to classroom stress and increasing classroom

engagement (Lyon et al., 2009). By using the CDI and TDI skills, teachers experience increased compliance and reduced disruptive behavior from their students (McIntosh et al., 2000). TCIT-U has been successful with children from diverse backgrounds, including children from minoritized groups, at-risk youth from urban areas, children from low-income households, and children with disabilities (Davidson et al., 2021; Gershenson et al., 2010; Lyon et al., 2009). Adaptability of TCIT-U has also been evaluated with children in different grade levels, with classrooms as early as head start, a program supporting school readiness from birth to age 5 (Fawley et al., 2020; Garbacz et al., 2014). This program has been implemented in different classroom settings, such as public and private schools, religiously affiliated schools, and daycare centers (Fernandez et al., 2015; Gershenson et al., 2010). Along with the positive classroom and child outcomes, teachers have demonstrated good attendance, engagement with the program, and high levels of satisfaction (Budd et al., 2016).

Despite these promising outcomes, successful implementation and sustainability of evidence-based interventions within schools remain challenging (Forman et al., 2009). Child outcomes depend on both effective intervention *and* effective implementation (Fixsen et al., 2005). When implementation of a school-based program is poor, even highly effective interventions can fail to produce significant improvements for children (Fixsen et al., 2005). Therefore, it is important to examine factors that may promote or impede effective implementation. Past TCIT-U studies have used measures such as observations of teacher skill acquisition, teacher attendance for training sessions, teacher homework completion from training (e.g., skill practice), and teacher satisfaction to examine engagement and satisfaction with TCIT-U (Budd et al., 2016). The variability found in child outcomes suggests differences in implementation across teachers (Garbacz et al., 2014). Past TCIT-U implementation studies have suggested that community-level factors, such as funding and policies, are critical for the fit and successful implementation of TCIT-U (Budd et al., 2016). Only one study, however, has used qualitative methods to examine the implementation of TCIT-U (Davidson et al., 2021). Focus groups were conducted with teachers implementing TCIT-U in special education classrooms (Davidson et al., 2021). Thus, additional qualitative or mixed methods research with multiple stakeholders and broader implementation settings is needed.

When working within schools, it is particularly important to consider a social-ecological framework given that contextual factors (e.g., school policies or climate, administrator support, training, and coaching) may impact how evidence-based interventions are implemented and sustained (Domitrovich et al., 2008). TCIT-U is a professional development program that specifically aims to train teachers in behavior management strategies through live coaching. Therefore, an in-depth examination of the perspectives and experiences of teachers and coaches, in addition to key stakeholders (i.e., school administrators), is critical for identifying both barriers and facilitators to implementing a new program. More research is needed to examine how to best implement TCIT-U in schools and classrooms to expand TCIT-U to a larger population (Fernandez et al., 2015). The 2000 Surgeon General's Report on Children's Mental Health proposed that improving the capacity of schools to be "a key link to a comprehensive, seamless system of school- and community-based identification, assessment and treatment services" should be prioritized (U.S. Public Health Service, 2000).

The Consolidated Framework for Implementation Research (CFIR) provides a useful social-ecological framework for understanding facilitators and barriers to intervention implementation (Damschroder et al., 2009). This social-ecological framework examines multiple levels of contextual factors that impact implementation including *intervention characteristics*, *inner setting*, *outer setting*, *characteristics of individuals* (e.g., characteristics of those who implement the intervention), and *process*, which are all factors that determine implementation success (Damschroder et al., 2009). *Intervention characteristics* include evidence strength and quality, design quality and packaging, adaptability of the intervention, and complexity of the intervention, which can also impact the success of implementation (Lyon & Bruns, 2019). The *inner setting* is the organization in which the intervention is implemented and includes the school, school climate, culture and norms, relationships, as well as leaders within the school, such as principals (Lyon & Bruns, 2019). For example, principal support has been identified as a crucial factor in the promotion and implementation of an intervention (Lyon & Bruns, 2019). The *outer setting* includes the school district context, such as needs, policies, initiatives, incentives, and funding (Lyon & Bruns, 2019). *Characteristics of individuals* that can impact implementation include attitudes, beliefs, self-efficacy in applying the intervention, years

of experience, and years within an organization (Lyon & Bruns, 2019). Furthermore, *the process* involves engaging individuals in implementation, execution, reflection, and evaluation (Lyon & Bruns, 2019). At each level of CFIR, these factors can impact implementation either directly or indirectly as facilitators or barriers to implementation (Damschroder et al., 2009). Examining the implementation of an intervention from this social-ecological lens can provide insight into how to best support and sustain an intervention within a school setting (Lyon & Bruns, 2019).

This study uses qualitative methods to examine the implementation of TCIT-U across preschool through second-grade classrooms in a public school district in Illinois, USA. This qualitative approach is supplemented by quantitative data on satisfaction, teacher sense of efficacy, teacher observations, and school records. TCIT-U has support for effectiveness as delivered by research staff (e.g., Lyon et al., 2009) and has demonstrated feasibility when implemented by school staff (Budd et al., 2016). An in-depth examination of implementation and sustainment of TCIT-U as delivered by school staff, utilizing qualitative methods, and engaging multiple stakeholders (teachers, coaches, and administrators), however, has not yet been conducted. The research questions are: (1) Is TCIT-U a feasible, acceptable, and useful intervention? (2) What are the key factors that facilitate the successful implementation of TCIT-U? (3) What are the key barriers or challenges to implementing TCIT-U? Districts that have evidence of the positive impact of interventions are more likely to invest in continuing such programs. Further, by exploring challenges associated with the implementation of TCIT-U through qualitative methods, districts have knowledge and input on how to overcome such challenges and improve implementation long-term. This mixed-methods investigation of TCIT-U implementation will enhance our understanding of factors that promote effective implementation and sustainment of TCIT-U in real-world settings.

2 | METHOD

2.1 | Participants

A suburban school district within the Midwest region self-selected to apply for a small amount of funding to bring TCIT-U to their school district to build universal classroom supports. In the district, approximately 92% of teachers and 60% of students identified as White, less than 25% of the student population identified as low-income, and 16% identified as English language learners. All school administrators (district administrator and school principals) in addition to all coaches and teachers who were involved in the training and implementation of TCIT-U within this school district were invited to participate in the research evaluation of the program, which included completing surveys and participating in focus groups. Seven coaches (29–46 years old; 100% female) were trained in TCIT-U, though one coach did not complete the implementation at the end of the school year. Among coaches, 85.7% identified as White and 14.3% identified as Hispanic/Latina. Twelve teachers were also trained, though only eight completed demographic data (26–60 years old; 87.5% female). All eight teachers identified as White. Regarding education status, 85.7% of coaches attained a Master's degree, and 14.3% attained a doctoral degree. Among teachers, 100% attained a Master's degree. Eight teachers and five coaches participated in the focus groups, and three administrators participated in individual interviews.

2.2 | Procedure

TCIT-U was implemented in a suburban school district near a Midwestern city in the United States. The TCIT-U program utilized the Train-the-Trainer model with the goal of supporting sustainability. In June 2019, TCIT-U leaders trained eight coaches, and training satisfaction data were collected. Baseline data for students were also collected before the implementation of TCIT-U began. Coaches then trained 12 teachers with support from TCIT-U leaders at the start of the academic school year in August 2019. Teachers were first trained in CDI, which focuses on improving social interactions between teachers and students. After the completion of this phase, teachers were trained in TDI. In TDI, training is provided on skills and techniques to manage behavior in the classroom. Both CDI and TDI trainings were followed by a

series of observations and coaching. Live coaching was implemented for both CDI and TDI, in which the coach would provide in the moment feedback as the teacher interacted with students in the classroom with the use of an earpiece. Coaches coded teacher's use of TCIT-U skills with a coding scheme that is based off the Dyadic Parent-Child Interaction Coding System for PCIT (DPICS-III; Eyberg, 2005). From August 2019 to March 2020, data were collected on training and coaching satisfaction, teacher observations, and school records. Due to the Coronavirus Disease 2019 (COVID-19) pandemic school closures, the coaching phase during TDI was disrupted abruptly in March 2020, in which 3 months of the intervention and coaching were lost with the transition to remote learning.

Focus groups for teachers and coaches were conducted virtually through Zoom after school closures in May 2020. Two focus groups lasting 1 h each were conducted with teachers based on their availability for attendance. One hour-long focus group was conducted with coaches. Individual interviews were conducted with three administrators for approximately an hour per interview. Focus groups and interviews were led by doctoral graduate students who were part of the research evaluation team, with focus groups consisting of two team members, a moderator, and an observer. Interviews were conducted individually by doctoral graduate students with administrators. Consent was obtained verbally at the beginning of each focus group and each interview due to meeting virtually per COVID precautions. Interviews and focus groups were audio-recorded then transcribed by the research team and reviewed for accuracy. Data were then coded and analyzed.

2.3 | MEASURES

2.3.1 | Demographic information

As part of satisfaction surveys, coaches and teachers provided demographic information regarding their age, race and ethnicity, and education status.

2.3.2 | Teacher sense of efficacy

Teachers completed the Teacher Sense of Efficacy Scale (TSES) at baseline and after implementation (Tschannen-Moran & Hoy, 2001). The TSES is a 24-item scale that assesses teachers' sense of their capabilities in student engagement, classroom management, and instructional practices. Teachers respond on their efficacy using a 9-point Likert-type scale that ranges from 1 (*Nothing*) to 9 (*A great deal*). Alphas for the three subscales ranged from .76 to .87.

2.3.3 | Teacher observations

Teachers were observed by coaches at baseline and regularly throughout CDI and TDI phases to collect information on teacher use of TCIT-U skills. Behavioral observations were rated according to a modified version of the Dyadic Parent-Child Interaction Coding System for PCIT (DPICS-III; Eyberg, 2005). Each teacher observation interval conducted was for 5 min. During the CDI Phase, teachers were observed 55 times across coaches (range = 3–9 observations per teacher; $M = 6.0$; $SD = 1.7$). During the TDI Phase, teachers were observed 69 times across coaches (range = 0–9 observations per teacher; $M = 4.3$; $SD = 2.9$). Teacher use of CDI skills: behavioral descriptions of student behavior (e.g., "You are drawing a picture!"), reflections (e.g., teacher reflects back what the student said), and labeled praise of students (e.g., "Good job putting your coat away") were coded. Likewise, teacher use of TDI skills included coding use of direct commands and questions with students, as well as follow-up to either of these (e.g., addressing noncompliance or using reflection or labeled praise after a student response to a question). Finally, negative talk (e.g., criticism) was also coded.

2.3.4 | Satisfaction

Teachers and coaches also provided ratings of their satisfaction with training and coaching across the intervention. Satisfaction was rated with a five-point Likert-type scale of 0 (*Strongly disagree*) to 4 (*Strongly agree*). Additionally, teachers rated the following six domains: the usefulness of the trained skills, whether it made them feel more effective as teachers, if the training activities were helpful in understanding the TCIT-U material, the knowledge of the presenters, the organization of the training, and the usefulness of the training itself.

2.3.5 | School records

District partners shared deidentified school records for children in TCIT-U classrooms and comparison classrooms (similar classrooms without TCIT-U implementation) at two timepoints: at the end of first trimester (November 2019) and at the end of second trimester (March 2020). Classrooms included: early childhood (ages 3/4), early childhood (ages 4/5), and 1st/2nd grade. The school records included information on social-emotional development and classroom behavior rated on a four-point system (e.g., *not yet*, *emerging*, *developing*, *secure*). Some examples include following directions, accepting redirection from teacher, independent management of classroom rules and routines, the ability to be involved in activities and attend to them, participation in classroom conversations, and peer collaboration.

2.3.6 | Focus group and interview script

Utilizing a deductive approach, the script for focus groups and interviews was developed utilizing the Consolidated Framework for Implementation Research (CFIR), an existent social-ecological framework for understanding the implementation of interventions within schools (e.g., Damschroder et al., 2009; Lyon & Bruns, 2019). Example questions included “What effects do you think TCIT-U has had, if any, on how teachers interact with children?” (Intervention Characteristics: TCIT-U Outcomes), “How adaptable was the intervention (e.g., for use with English language learners, special education etc.)?” (Intervention Characteristics: Adaptability), and “How much did you feel your school was ready to start TCIT-U?” (Inner Setting: Readiness for Implementation). Full scripts are available upon request.

2.4 | Qualitative analysis

Transcripts were transcribed and then reviewed to remove all identifying information. Next, transcripts were segmented into units for coding and imported to Dedoose, a qualitative data software (Dedoose Version 9.0.17., 2021). Based on the deductive approach, transcripts were coded with predetermined codes using the CFIR framework that was also used to develop the focus group script (Damschroder et al., 2009; Lyon & Bruns, 2019). Five broad categories (e.g., intervention characteristics, inner setting, outer setting, characteristics of individuals, and process) included their own subcodes related to the implementation of an intervention in a school-based setting. The focus group code book included coding at the broad level (one of the five broad categories) and any subcodes, which sometimes included more than one level of subcodes. Therefore, any level of subcodes were able to be analyzed. Transcripts were double coded by trained graduate research assistants. Coded transcripts were then reviewed for any discrepancies at the broad level and at all levels of subcodes. All discrepancies were then resolved by thorough discussion between coders or brought to the team for discussion and consensus. General themes most

frequently discussed were identified under all subcodes. Themes extracted were then compared, discussed, and reviewed by the research team.

3 | RESULTS

3.1 | Quantitative data

3.1.1 | Teacher sense of efficacy

Teachers' overall sense of efficacy in student engagement significantly improved from pre ($M = 6.91$) to post ($M = 7.84$) implementation of TCIT-U ($t = -2.66, p < .05$). Teachers' sense of efficacy in instructional strategies also significantly improved from pre ($M = 6.71$) to post ($M = 7.64$) implementation ($t = -3.23, p < .05$). Teachers' sense of efficacy in classroom management also improved from pre ($M = 6.90$) to post ($M = 7.59$) implementation and was marginally significant ($t = -2.10, p = .052$). Every item on the TSES scale increased from baseline to post assessment demonstrating an increase in self-efficacy across all items. Increase in items ranged from 0.4 to 1.35 on average across participants.

3.1.2 | Teacher observations

During the CDI phase, teachers were observed a total of 55 times across coaches. During the TDI phase, teachers were observed a total of 69 times across coaches. Thus, a total of 124 observations were completed throughout the year. Hierarchical linear modeling analyses revealed that teacher use of behavioral descriptions for students in their classroom significantly increased over the course of CDI ($Coeff = 0.58, SE = 0.23, p = .03$). During TDI, teacher use of questions directed toward students significantly increased over time ($Coeff = 0.46, SE = 0.17, p = .03$). No other significant changes were found.

3.1.3 | Satisfaction

See Table 1 for a summary of satisfaction across teachers and coaches. Teachers reported high levels of satisfaction across phases of TCIT-U. Coaches reported high levels of satisfaction with their training.

3.1.4 | School records

Repeated measures ANOVAs were used to assess for changes in child classroom behavior over time and across TCIT/Comparison groups as rated by teachers on school records (i.e., report cards). There were no statistically significant time \times group interactions for 1st and 2nd grade nor for early childhood ages 3 and 4. Early childhood ages 4 and 5 showed significant time \times group interactions for *self-help and asking for help*, $F(1, 31) = 9.307, p < .05, \eta_p^2 = .231$, showing that the TCIT-U group demonstrated greater change ($M_{T1} = 2.20; M_{T2} = 2.75$) compared with the comparison group ($M_{T1} = 2.77; M_{T2} = 2.85$). Similarly, early childhood ages 4 and 5 also showed significant time \times group interactions for *participation by responding to stories, questions, and statements*, $F(1, 31) = 4.373, p < .05, \eta_p^2 = .124$, showing that the TCIT-U group demonstrated greater change ($M_{T1} = 2.00; M_{T2} = 2.50$) compared with the comparison group ($M_{T1} = 2.46; M_{T2} = 2.62$). The TCIT-U group showed greater improvement in both indicators over time, though the starting point was lower.

TABLE 1 Satisfaction

Teacher satisfaction Statement	CDI training		CDI coaching		TDI training	
	Strongly agree (%)	Somewhat agree (%)	Strongly agree (%)	Somewhat agree (%)	Strongly agree (%)	Somewhat agree (%)
These sessions taught me skills I can use in my interactions with the children in my classroom.	91	9	92	8	100	--
These sessions made me feel better able to communicate with the children in my room.	91	--	75	25	92	8
These sessions made me feel better able to control and discipline the children in my room.	64	27	75	25	75	25
The activities helped me learn the material presented.	73	27	83	17	83	17
The trainers were knowledgeable and experienced in the topic covered.	91	9	92	8	100	--
The presentations and activities were organized and clear.	100	--	92	8	100	--
Overall, the sessions were useful.	91	--	92	8	92	8
Coach satisfaction Statement	TCIT-U training		TCIT-U training		TCIT-U training	
	Strongly agree (%)	Somewhat agree (%)	Strongly agree (%)	Somewhat agree (%)	Strongly agree (%)	Somewhat agree (%)
The didactic sessions provided enough information to teach me the essential skills of CDI & TDI.	86	14	86	14	14	14
The written assignments and manual provided helpful background information and resources.	100	--	100	--	--	--
The practice exercises in the Teacher Manual helped to clarify the TCIT-U skills.	71	29	71	29	29	29
The role-play activities helped me practice the material presented.	100	--	100	--	--	--
The opportunity to practice coding helped me learn to use the TCICs coding system.	86	14	86	14	14	14
The opportunity to practice with children helped me learn to use the CDI & TDI skills.	100	--	100	--	--	--
The opportunity to practice coaching helped me to learn coaching skills.	83	17	83	17	17	17
The presentations and activities were organized and clear.	71	29	71	29	29	29
I feel confident that I am prepared to be a TCIT-U coach.	71	29	71	29	29	29

Abbreviations: CDI, child-directed interaction; TDI, teacher-directed interaction; TCIT-U, Teacher-Child Interaction Training-Universal.

3.2 | Qualitative themes

Themes were identified across CFIR. See Table 2 for a summary of themes and sample quotations.

3.2.1 | Intervention characteristics

3.2.1.1 | Training

Teachers and coaches reported that the TCIT-U training was comprehensive, thorough, and valuable. Across teachers and coaches, almost all participants reported they learned a lot and enjoyed the training. Overall, the training was engaging and very well-received. Despite the positive reviews, there were several suggestions for future implementation. First, there were disparate views related to the time spent on training, with several teachers, coaches, and administrators suggesting less training time, while a few teachers reported wanting more time and additional practice. Second, several coaches noted the timing of the training could be closer to the start of the school year. Finally, some coaches viewed the creation of videos during training as somewhat burdensome despite the learning that occurred.

3.2.1.2 | Coaching

The majority of teachers reported that live coaching was helpful and valuable for progressing their skills. Coaches noted that delivery of coaching provided a structured way to provide positive feedback to teachers. Moreover, teachers reported enjoying this positive feedback and using the skills more when praised for their use of skills.

Coaching challenges that emerged included technology challenges and distractions from classroom teaching. Specifically, two teachers reported that the observations were distracting and would have preferred feedback at the end of the observation. In addition, several teachers and coaches reported issues with using the headphones. Two teachers reported not using the headphones for their sessions. Instead, coaches sat within a close proximity and whispered to the teacher. Both of these teachers reported this method of coaching was helpful and a solution to difficulty with headphone use.

3.2.1.3 | TCIT-U outcomes

TCIT-U was viewed as positive for teachers, students, and classrooms as a whole. All teachers found TCIT-U as useful and helpful. Multiple teachers reported that the TCIT-U skills helped them communicate more effectively in interactions with their students. Many school staff noted that TCIT-U helped strengthen their efficacy as teachers and coaches, including building confidence, improving communication skills, and building warm, supportive relationships with students. Students were more engaged and there was a positive energy within classrooms. Overall, students responded well to TCIT-U. Students were engaged, and TCIT-U helped build confidence among students and create a sense of belonging. TCIT-U was also helpful for managing some challenging behaviors among students and worked especially well for attention-seeking students to focus attention on their positive behaviors.

3.2.1.4 | Adaptability

Across teachers, TCIT-U was viewed as adaptable for students with diverse needs. Teachers noted TCIT-U was beneficial for all students and worked for classroom instruction, small group instruction, and pullout services. One teacher adapted the TCIT-U skills for use in her EL/bilingual classroom and was supported by a bilingual coach in implementing the skills. Several teachers also discussed the use of TCIT-U with children with autism. Teachers noted strengths of TCIT-U and helpfulness across a range of abilities and needs, though some teachers noted that they did not feel all of the strategies were helpful with nonverbal students.

TABLE 2 Qualitative themes endorsed by teachers, coaches, and administrators

	Theme	Sample quotations
Intervention characteristics		
Training	Training was valuable. Suggestions were provided related to timing.	<p>Teacher: "I think that the presenters were very knowledgeable about everything that they did, and everything we talked about."</p> <p>Coach: "I thought the summer training was great and comprehensive, and I felt really supported through it, and I felt like I learned a whole lot."</p> <p>Coach: "Just the lag time between training and when school actually started... I think the intensity of the training was amazing, and if that could have occurred in August, it would have been even more amazing, because then you're using those skills a few weeks later. So, for me, that would be the only thing that was missing was just the timeline of it."</p>
Coaching	Coaching was helpful. Challenges included technology and distractions from classroom teaching.	<p>Teacher: "The most valuable thing is having this other amazing professional adult in the room with me, coaching me a couple of times... It's like learning how to ride a bike and then having someone, they're holding the bike with you and then they're like, "You're doing it, you're doing it!" And just like, along with you the whole way."</p> <p>Teacher: "the situation with the headphones, that was the most awkward part. And it wasn't just keeping them in the ears, it's also like just having my ears plugged up when I'm sitting there doing a lesson. It made it hard to connect to the kids. It was hard to get used to."</p>
TCIT-U outcomes	TCIT-U was viewed as positive for teachers, students, and the classrooms as a whole.	<p>Teacher: "I would say using it during my first year, I've gained more confidence, not just in interacting with my students, but any students within the classroom that I can help the teacher in any way with that positive behavior. I think it helped me a lot. I hope I can continue to use [TCIT] next year."</p> <p>Coach: "I saw a change in how teachers talk to students on a daily basis. Phrasing things more positively, giving more direct commands of what they expect them to do, rather than telling them</p>

(Continues)

TABLE 2 (Continued)

	Theme	Sample quotations
Adaptability	TCIT-U was viewed as adaptable for students with diverse needs.	<p>what not to do, and I thought that was pretty powerful."</p> <p>Teacher: "Working with so many different students as a Special Ed teacher, I think [TCIT] would be or it was beneficial for all of them."</p> <p>Teacher: "It was most helpful with my autistic children. I mean, I had a child that if I hadn't used those skills, I would have really struggled. And it was amazing. The one student that I had that it made a huge difference in, I mean, it was very noticeable."</p>
Intervention challenges	Competing demands and time commitment notes as challenges.	<p>Coach: "I would say that making time for it was challenging. I think given my role in just being pulled into different places, and I know everyone has the same issue being pulled into a million different places at no notice, so a well-intentioned time to coach with a teacher when there's a crisis happening. It gets thrown out the window."</p> <p>Coach: "but that being said, it [TCIT] is a mindset shift for a lot of teachers. So, I think it feels very taxing until they get more fluent with it. So in that way, it's tough because there are a number of other initiatives that they're devoting a lot of brain space to as well."</p>
Comparison to other interventions	TCIT-U was understood as an approach that could be part of the infrastructure of the school, though some challenges were noted integrating with other interventions.	<p>Coach: "There were ways to work [responsive classrooms] that were really helpful, particularly with behavior descriptions. So, if there was resistance to labeled praise, it was very easy to say just describe what they're doing then, and that went very well. It's a weird skill to develop, that being said, it feels inauthentic, especially at first. So it was clunky. But philosophically, that was a match, and that was fine. And I think there's more clash with some of the TDI, but in the CDI phase it was pretty easy to work around a lot of it."</p> <p>Administrator: "And we didn't really want to advertise it as an intervention. It needs to be part of the infrastructure at tier one. It's good practices for all teachers and for all kids. And so we actually deemphasize that word "intervention"</p>

TABLE 2 (Continued)

	Theme	Sample quotations
		because we don't want it to be viewed as something, in addition to anything. We wanted it really to become part of the fabric of the core experience for kids."
Inner setting		
Compatibility	TCIT-U intervention aligned with values of the school/district.	Administrator: "It sounded like a positive concept, a supportive concept. My recollection was, [TCIT] was primarily focused on coaching teachers in real time, regarding the language they use with children, the feedback they provided, in very specific ways for specific purposes. So it seemed perfectly relevant and appropriate, particularly for our primary classroom setting. So my initial impressions were positive."
Receptivity of school staff	Overall, there was a high level of receptivity across administrators and coaches, with some variability noted among teachers.	Coach: "And I was really excited. I thought [TCIT] would be a really good way for me to work with teachers and have really specific structured feedback to give them, which obviously I do generally when I'm consulting with them, but having a really specific training, and then follow up. I was excited about being able to start that process and go through it with them." Administrator: "Mindset and understanding the big picture of what the goal of this. For me, that's the crucial difference between one teacher embracing it and being successful and another teacher just not at that level of readiness yet."
Support	Staff noted the level of support and awareness from administration impacted the implementation process.	Teacher: "I would say our assistant principal, he was evaluating me this year and after one of my observations, one of the things he said was how much I was interacting with the students positive way. He really noticed that like it really stood out to him. I was like, "Oh yeah, all this training I've been doing." So he was aware of it then, but again, I'm not sure that our principal knows what TCIT is." Coach: "Yeah, I think encouragement would be helpful at the building level. Everybody likes recognition, and they did all work at it. And in some cases where buy in honestly was a major issue, it would have been helpful to have some

(Continues)

TABLE 2 (Continued)

	Theme	Sample quotations
Readiness/readiness to continue	Readiness varied, with acknowledgment that this was the first year implementing.	encouragement of professional choices... That being said, I don't think it was a big issue." Administrator: "I feel like from the district level, we probably could have prepared people a little bit better for the time commitment it was going to be, what exactly the program was."
Networks and communications	Several school staff noted it would be helpful to increase building-wide awareness of TCIT-U, though this was challenging due to small pilot.	Administrator: "But I still engage in conversations about [TCIT] throughout the year. I got feedback from teachers participating in it. However, if it was shared at a whole staff meeting, there would have been very little context for it because there was a limited pilot of people participating. We could have set aside the time and explain to people what was occurring so that staff-wide, there'd be some awareness of it. But again, it didn't really make the short list of high priority items that we were talking with people about all time."
School culture	School staff discussed culture as positive and collaborative, though recognized not all will want to try something new.	Teacher: "I mean, I think buy-in is huge. And I think we all went into [TCIT] with some experience, saying "Okay. Well, let's give it a try." But there are plenty of teachers to not... sound negative, but who may go into it like, "However, I like to do this other thing."

Outer setting

Needs and resources

District and contextual challenges included competing district priorities, funding, and staffing (e.g., substitute teachers for training days).

Administrator: "...it was not good timing for this to occur. We were supporting staff with rolling out some pretty major literacy initiatives, some other social emotional initiatives. And I think [TCIT] came up as something that the district just couldn't really pass up on, because it seemed like such a nice opportunity. So I think they jumped on it without a lot of broad discussion around, would we be able to really fully invest our time and energy?"

Administrator: "We went way, way over the dollar amount provided by the grant because the DESSA, DECA, all of that was extra that we were asking. We were asking teachers to participate, and that involved the level of co-planning and additional consult with our coaches. I

TABLE 2 (Continued)

Theme		Sample quotations
		think we figured it was like an extra 15 h for the school year. So we did end up paying everyone involved a stipend. And then just the training, getting subs for the training for teachers to come. So it was definitely a cost."
Characteristics of individuals		
Knowledge and beliefs about the intervention	Overall, a positive outlook regarding knowledge and attitudes about TCIT-U was shared.	Teacher: "But I'm very, very, very glad that I did [TCIT]. Overall, I think, for me personally, I had some very, very challenging students on my caseload this year, and so it [TCIT] was incredibly, incredibly helpful for me, just for me mentally, I guess, to work with the coaches and just attending all these presentations. And I think it just helped me personally with just my overall outlook, because I was really burnt out."
Readiness for change	Many participants were at different stages of their readiness to change,	Teacher: "I actually, on the first day, took the pride skills and copied that, and hung it in every area of my classroom, just because I need the visual reference. I had them everywhere, like "What am I doing now? What am I doing now?"
Experience	Teachers varied in experience.	Teacher: "And this is my 18th year in the district, so I'm not a new teacher, but I don't know, it [TCIT] was everything. And so I feel like... I don't know, just everything about this, it was everything that I needed. So this was perfect. So I feel like it just rekindled everything and I'm like, "Yes. Yes, this is what I want to do. Yes, this is exactly... I do want to teach special ed, I am good at this, I can do this."
Learning styles	Many school staff also noted that TCIT-U was compatible with multiple learning styles.	Teacher: " I learn by doing, so for me, getting the feedback... I found it was a little bit different, and distracting in some ways, so I would agree with that part. But for me, the distraction was, "What can I do different? What can I do better?" Or "What should I keep doing?" And I noticed when I would get positive feedback about something that said "Nice behavior description," then I would immediately start rapid firing them."

(Continues)

TABLE 2 (Continued)

	Theme	Sample quotations
Process		
Facilitators of engagement	TCIT was appealing due to perceived benefit and fit.	Administrator: "I have found that when something adds value, you don't have to do a lot of convincing people to stick with [TCIT]. They want to do more of it. They're like, "Oh my gosh, this is really impacting my students and my practice positively. I'm all in on this."
Barriers of engagement	Competing demands were noted. Training all members of teams was suggested.	Teacher: "I also feel that when you have teaching teams, it is kind of critical that the team is doing it, as opposed to just one person. I teach in a classroom, and I have two associates that are with me. Trying to deliver the information so that they could use some of the skills, it just seemed like we should have all been a part of it."
Execution	Teachers reported continued implementation of TCIT-U.	Teacher: "And like I said, the more I'm on it and as close to 100% consistent as I can be, the more of an impact it [TCIT] has."

Abbreviation: TCIT-U, teacher-child Interaction Training-Universal.

3.2.1.5 | *Intervention challenges*

Several challenges were noted in relation to implementing TCIT-U with fidelity (e.g., adhering to the TCIT-U model). Scheduling issues for observations, coaching, and feedback between coaches and teachers were also difficult, given that both teachers and coaches have busy schedules that may not always align. These issues were linked to competing demands and multiple initiatives within the school district. Overall, there was a need for greater awareness of the time commitment for coaches and teachers. Further, one teacher reported that time outside of the classroom to attend trainings was another salient cost for teachers. It was also noted that some of these challenges would ease with time as coaches and teachers became more comfortable with TCIT-U.

3.2.1.6 | *Comparison to other interventions*

TCIT-U was understood as an approach that could be part of the infrastructure of the school, and a core experience for children. Indeed, coaches echoed similar sentiments that TCIT-U was less of an intervention, and more of a layer that could be added to the classroom, and more of a way of teaching rather than a set curriculum. Still, some teachers struggled integrating TCIT-U with another intervention (Responsive Classroom). While not all teachers implemented Responsive Classroom, those who did discussed the ways that TCIT-U was both compatible and challenging to integrate with this other approach.

3.2.2 | Inner setting

3.2.2.1 | *Compatibility*

Across administrators, coaches, and teachers, participants reported that the TCIT-U intervention aligned with their perspectives on how classrooms should operate and was a good fit for the values of the school. For example, teachers, coaches, and administrators noted the positive language used in TCIT-U, and how it is a recommended ratio of positive

to negative comments which was easily achievable with the use of TCIT-U skills. Administrators viewed the intervention as highly relevant for their classrooms. Further, this school district was dedicated to building more universal interventions, and TCIT-U fit well with this initiative. Social-emotional needs of the students were a priority, and the TCIT-U intervention fit well as a way to meet the social, emotional, and behavioral needs of the students.

3.2.2.2 | *Receptivity of school staff*

Overall, administrators were very receptive to TCIT-U and held positive views about the philosophy of the intervention and the potential benefits for students. Coaches were also highly receptive, and administrators noted that coaches who were selected for participation had a growth mindset. One administrator described that the coaches selected were a “10” in their receptivity to the intervention. Administrators, however, reported that teacher receptivity was varied. Coaches also reported excitement for the intervention and for working with teachers.

3.2.2.3 | *Support*

Staff also noted how the level of support from administration impacted the implementation process and buy-in for TCIT-U within their schools.

3.2.2.4 | *Implementation readiness/readiness to continue*

Some administrators noted that they were prepared and ready to expand implementation for the next year, while some noted that they were not as prepared as they would have hoped for the first implementation, which led to some challenges.

3.2.2.5 | *Networks and communications*

Several school staff noted a need for building-wide meetings to discuss the value of TCIT-U, as it can help foster the implementation climate and support buy-in through encouragement. Others discussed why it was challenging to engage in these broader discussions because this first year of TCIT-U was a smaller pilot.

3.2.2.6 | *School culture*

School staff also discussed the culture of the school as overall positive and collaborative in their efforts to best support students. Some staff, however, noted that not all members are on board to try new initiatives, which can make implementation challenging.

3.2.3 | *Outer setting*

District and larger contexts are also important within which an organization resides are also important to consider. For example, one administrator noted that there were other district priorities that made the timing of adoption difficult. In addition, the availability of substitute teachers was a district challenge. Finally, costs not covered by the grant were noted as another challenge. For example, due to the approximate 15 h of planning and consultation with coaches before implementation, each coach was also compensated with a stipend which was an additional financial cost.

3.2.4 | *Characteristics of individuals*

3.2.4.1 | *Knowledge and beliefs about the intervention*

Some school staff mentioned familiarity with TCIT-U before beginning the program, and others quickly developed enthusiasm after hearing about the program and starting it. Overall, a positive outlook regarding knowledge and attitudes about TCIT-U were shared during the focus groups.

3.2.4.2 | *Readiness for change*

Many participants were at different stages of their readiness to change and incorporate their use of the intervention. More specifically, some noted their excitement in continuing their use of TCIT-U, while one teacher noted they had more concrete questions about the implementation of TCIT-U in the classroom setting.

3.2.4.3 | *Experience*

Teachers varied in experience, with some teachers noting TCIT-U helped strengthen skills, while others noted that their years of expertise helped them in the implementation process of TCIT-U.

3.2.4.4 | *Learning styles*

Many school staff also noted that TCIT-U was compatible with multiple learning styles, though some desired additional practice.

3.2.5 | **Process**

3.2.5.1 | *Facilitators of engagement*

Central to the TCIT-U implementation was engaging teachers, coaches, administrators, and other facilitators. Coaches became involved after learning about the opportunity from a district administrator. Teachers reported they volunteered to be a part of the TCIT-U program, though some had initial hesitations. Overall, teachers thought TCIT-U would be a good fit with their student population and as having potential benefits. Suggestions for future engagement from both coaches and teachers included having a school-wide presentation of TCIT-U and having previously participated teachers speak about their experience with TCIT-U. Then, having teachers volunteer to participate after a general introduction.

3.2.5.2 | *Barriers of engagement*

Administrators discussed seeking out special education teachers in particular, who would be amenable to the pilot and have the “mindset to participate.” An unanticipated challenge was finding substitutes for special education teachers given the time required for training in TCIT-U. Further, coaches consisted of psychologists and social workers, who often had competing demands to attend to the social emotional needs of the larger school population. Coaches and administrators both noted that future implementation would need to be more mindful of selection of participants, such that participants would be spread across disciplines, and selecting teachers who were already skilled and experienced, rather than teachers who were in need of growth, so that implementing TCIT-U would be a smoother process.

3.2.5.3 | *Execution*

Teachers reported implementation of TCIT-U skills across classroom settings. One teacher began utilizing visual aids as reminders of TCIT-U skills to implement. A suggestion was to ensure all teachers and staff (teacher aides, etc.) in the classroom were trained TCIT-U.

4 | **DISCUSSION**

This mixed-methods evaluation of TCIT-U demonstrated high levels of acceptability, good feasibility, and several notable improvements across teachers and students. High levels of satisfaction were also reported. Teachers demonstrated improvements in their sense of efficacy related to student engagement and instructional strategies.

Although the sense of efficacy related to classroom management was trending toward significance, this aspect of efficacy was not significant possibly due to the TDI phase being truncated as a result of COVID-19 and associated school closures. In addition, past research has also shown an increase in positive teacher behavior during TCIT-U (Lyon et al., 2009), consistent with the current study finding an increase in behavioral descriptions across CDI. During TDI, teacher use of questions significantly increased. These questions may have been academic questions during direct instruction (e.g., “What is 2 plus 2?”) which are often necessary during instruction or this could be a result of not finishing TDI coaching, which emphasizes effective commands and questions with follow up (e.g., labeled praise following a student response to a question). This study adds to the current literature examining the effects of TCIT-U on student functioning by including report card data. Although limited in timeframe, the current study found greater increases in student engagement indices (e.g., student self-help or asking for help, student participation) for students ages 4–5 in TCIT-U compared with non-TCIT classrooms.

In general, TCIT-U was well-received, with several key factors facilitating implementation. These factors included high-quality training and coaching, notable improvements, adaptability, and compatibility with school priorities. Training and coaching were viewed as valuable. Coaches and teachers alike discussed positive outcomes related to confidence, classroom management, and positive interactions with students. Consistent with other studies examining TCIT-U with various populations (Davidson et al., 2021; Gershenson et al., 2010; Lyon et al., 2009), TCIT-U was viewed as adaptable to different classroom settings including special education. Similarly, TCIT-U was viewed as compatible with school priorities and values, which is critical for implementation (Damschroder et al., 2009). The participating teachers and coaches described TCIT-U as working well across various learning styles, levels of experience, and personal values. Thus, the intervention characteristics were well received, with only a few modifications recommended, such as timing.

Despite the positive feedback on TCIT-U, there were challenges that arose. Notably, coaches suggested altering the timeframe of TCIT-U training to be closer to the start of the academic year so there was less of a lag between training and beginning the intervention with teachers. Coaches also noted that competing demands and job responsibilities sometimes prevented regular observation and coaching of teachers. In fact, both teachers and coaches described multiple initiatives being rolled out in the district simultaneously and the time commitment of TCIT-U along with other district priorities was challenging to manage. Both teachers and coaches also discussed support from administrators as critical to managing these challenges. Some noted a supportive administrator really encouraged them despite the time commitment, while others were unsure their principal was aware of the hard work they were doing. Administrators who were interviewed agreed that it was a challenging time to adopt TCIT-U as other initiatives were also being introduced, and as COVID-19 unexpectedly closed schools to in-person learning before the end of the first year of implementation. Administrators also highlighted the financial resources needed to support training, substitute teachers for training days, and time for coaching. To overcome such barriers to implementation, it is recommended that sufficient discussion and planning take place to optimize the timeline, delineate roles and time allotted for roles, prioritize or space out new initiatives, and gain administrator support across levels (school and district administrators). These inner and outer setting supports appear critical to sustainment. In addition, several teachers suggested leveraging those who participated in the pilot to encourage expansion to new cohorts of teachers (e.g., as key opinion leaders).

4.1 | Limitations and future directions

Despite mixed-methods data related to the implementation of TCIT-U, this study has several limitations. First, random assignment for TCIT-U and comparison classrooms was not possible in this evaluation, limiting conclusions from school records and teacher sense of self-efficacy comparisons. Second, the timeline and evaluation were impacted by COVID-19. TCIT-U training occurred in June of 2019 and implementation began during the 2019–2020 academic year. Although implementation occurred from September through March, coaching of

teachers and classroom TDI skills was unexpectedly disrupted in March 2020 due to school closures associated with COVID-19. This disruption impacted the evaluation in addition to implementation. Satisfaction with TDI coaching was not able to be collected and student assessments and report card data were also limited. Finally, this disruption may have impacted the qualitative perspectives shared via focus groups and interviews. In fact, the district opted not to continue TCIT-U the following year due to remote learning demands and continued COVID-19 disruption.

Future research should continue to use both qualitative and quantitative methods to explore facilitators and barriers to the implementation of TCIT-U. This study can identify areas for continued support to promote the success of TCIT-U in schools. As this study was disrupted by COVID, examining changes over time among schools that are able to complete both CDI and TDI phases of training and coaching would provide valuable information regarding teacher and child outcomes. This would also allow for further examination of the impact on student report cards, attendance, and behavior management as well as teacher sense of self-efficacy beyond what was possible in this current study given the limitations of school disruptions from COVID. Further, to understand the feasibility of implementing TCIT-U across schools, examining the implementation of TCIT-U across both high-resourced and low-resourced schools may be important for future research. While TCIT-U is based on the train the trainer model, this study is limited to only initial implementation, and future research should examine the impact of TCIT-U across time and across cohorts using this train the trainer model to examine the sustainability of the TCIT-U intervention and the impact on teachers and student. This study demonstrated the importance of gathering information from teachers, coaches, and administrators as key stakeholders who should continue to be included in future research.

4.2 | Conclusion

This study demonstrated the positive impact of TCIT-U on teachers, coaches, and student outcomes. Despite the challenges and disruptions due to COVID, this study demonstrated that TCIT-U can improve teachers' confidence and self-efficacy managing classrooms while increasing engagement and impacting competencies among students. Qualitative results indicate strengths across intervention characteristics and process, with minor suggestions related to timing and engagement. Likewise, the teachers and coaches were engaged and receptive. Still, barriers in the inner and outer setting may have impacted the sustainability of TCIT-U, including competing district priorities, administrator support, and financial resources. Still, results from this study provide guidance for future implementation of TCIT-U as an acceptable, feasible, adaptive intervention that can be used across classrooms as a universal approach to support students and teachers.

ACKNOWLEDGEMENTS

The authors also gratefully acknowledge our district partners, coaches, and teachers. This study was supported by the Illinois Children's Healthcare Foundation (PI: Santiago).

DATA AVAILABILITY STATEMENT

Deidentified quantitative data are available from the corresponding author upon reasonable request.

ORCID

Catherine DeCarlo Santiago  <http://orcid.org/0000-0001-9276-7871>

REFERENCES

- Budd, K. S., Garbacz, L. L., & Carter, J. S. (2016). Collaborating with public school partners to implement Teacher-Child interaction training (TCIT) as universal prevention. *School Mental Health: A Multidisciplinary Research and Practice Journal*, 8(2), 207-221. <https://doi.org/10.1007/s12310-015-9158-8>

- Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science*, 4(1), 1–15. <https://doi.org/10.1186/1748-5908-4-50>
- Davidson, B. C., Davis, E., Cadenas, H., Barnett, M., Sanchez, B. E. L., Gonzalez, J. C., & Jent, J. (2021). Universal Teacher-Child interaction training in early special education: A pilot cluster-randomized control trial. *Behavior Therapy*, 52(2), 379–393. <https://doi.org/10.1016/j.beth.2020.04.014>
- Dedoose Version 9.0.17. (2021). *Web application for managing, analyzing, and presenting qualitative and mixed method research data*. SocioCultural Research Consultants, LLC. <https://www.dedoose.com>
- Domitrovich, C. E., Bradshaw, C. P., Poduska, J. M., Hoagwood, K., Buckley, J. A., Olin, S., Romanelli, L. H., Leaf, P. J., Greenberg, M. T., & Jalongo, N. S. (2008). Maximizing the implementation quality of evidence-based preventive interventions in schools: A conceptual framework. *Advances in School Mental Health Promotion*, 1(3), 6–28. <https://doi.org/10.1080/1754730X.2008.9715730>
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82, 405–432. <https://doi.org/10.1111/j.1467-8624.2010.01564.x>
- Eyberg, S. M. (2005). Tailoring and adapting parent-child interaction therapy to new populations. *Education and Treatment of Children*, 28(2), 197–201. <http://www.jstor.org/stable/42899841>
- Fawley, K. D., Stokes, T. F., Rainear, C. A., Rossi, J. L., & Budd, K. S. (2020). Universal TCIT improves teacher-child interactions and management of child behavior. *Journal of Behavioral Education*, 29(4), 635–656. <https://doi.org/10.1007/s10864-019-09337-6>
- Fernandez, M. A., Gold, D. C., Hirsch, E., & Miller, S. P. (2015). From the clinics to the classrooms: A review of teacher-child interaction training in primary, secondary, and tertiary prevention settings. *Cognitive and Behavioral Practice*, 22(2), 217–229. <https://doi.org/10.1016/j.cbpra.2014.01.004>
- Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature*. University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231).
- Forman, S. G., Olin, S. S., Hoagwood, K. E., Crowe, M., & Saka, N. (2009). Evidence-Based interventions in schools: Developers' views of implementation barriers and facilitators. *School Mental Health*, 1(1), 26–36. <https://doi.org/10.1007/s12310-008-9002-5>
- Garbacz, L. L., Zychinski, K. E., Feuer, R. M., Carter, J. S., & Budd, K. S. (2014). Effects of Teacher-Child interaction training (TCIT) on teacher ratings of behavior change. *Psychology in the Schools*, 51, 850–865. <https://doi.org/10.1002/pits.21788>
- Gershenson, R., Lyon, A., & Budd, K. (2010). Promoting positive interactions in the classroom: Adapting parent-child interaction therapy as a universal prevention program. *Education and Treatment of Children*, 33(2), 261–287. <http://www.jstor.org/stable/42900066>
- Jaycox, L. H., Cohen, J. A., Mannarino, A. P., Walker, D. W., Langley, A. K., Gegenheimer, K. L., Scott, M., & Schonlau, M. (2010). Children's mental health care following Hurricane Katrina: A field trial of trauma-focused psychotherapies. *Journal of Traumatic Stress*. <https://doi.org/10.1002/jts.20518>
- Kanine, R. M., Jackson, Y., Huffhines, L., Barnett, A., & Stone, K. J. (2018). A pilot study of universal teacher-child interaction training at a therapeutic preschool for young maltreated children. *Topics in Early Childhood Special Education*, 38(3), 146–161. <https://doi.org/10.1177/0271121418790012>
- Lyon, A. R., & Bruns, E. J. (2019). From evidence to impact: Joining our best school mental health practices with our best implementation strategies. *School Mental Health*, 11(1), 106–114. <https://doi.org/10.1007/s12310-018-09306-w>
- Lyon, A. R., Gershenson, R. A., Farahmand, F. K., Thaxter, P. J., Behling, S., & Budd, K. S. (2009). Effectiveness of teacher-child interaction training (TCIT) in a preschool setting. *Behavior Modification*, 33(6), 855–884. <https://doi.org/10.1177/0145445509344215>
- McIntosh, D. E., Rizza, M. G., & Bliss, L. (2000). Implementing empirically supported interventions: Teacher-child interaction therapy. *Psychology in the Schools*, 37(5), 453–462. [https://doi.org/10.1002/1520-6807\(200009\)37:5<453::AID-PITS5>3.0.CO;2-2](https://doi.org/10.1002/1520-6807(200009)37:5<453::AID-PITS5>3.0.CO;2-2)
- Moilanen, K., Shaw, D., & Maxwell, K. (2010). Developmental cascades: Externalizing, internalizing, and academic competence from middle childhood to early adolescence. *Development and Psychopathology*, 22(3), 635–653. <https://doi.org/10.1017/S0954579410000337>
- Shaw, D. S. (2013). Future directions for research on the development and prevention of early conduct problems. *Journal of Clinical Child & Adolescent Psychology*, 42(3), 418–428. <https://doi.org/10.1080/15374416.2013.777918>
- Simon, A. E., Pastor, P. N., Reuben, C. A., Huang, L. N., & Goldstrom, I. D. (2015). Use of mental health services by children ages six to 11 with emotional or behavioral difficulties. *Psychiatric Services*, 66(9), 930–937. <https://doi.org/10.1176/appi.ps.201400342>

- Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17(7), 783–805. [https://doi.org/10.1016/S0742-051X\(01\)00036-1](https://doi.org/10.1016/S0742-051X(01)00036-1)
- U.S. Public Health Service. (2000). *Report of the surgeon general's conference on children's mental health: A national action agenda*. Department of Health and Human Services.
- Ward, M. A., Theule, J., & Cheung, K. (2016). Parent–child interaction therapy for child disruptive behaviour disorders: A meta-analysis. *Child Youth Care Forum*, 45(2016), 675–690. <https://doi.org/10.1007/s10566-016-9350-5>
- Zisser-Nathenson, A. R., Herschell, A. D., & Eyberg, S. M. (2018). Parent-child interaction therapy and the treatment of disruptive behavior disorders. In Weisz, J. R. & Kazdin, A. E. (Eds.), *Evidence-based psychotherapies for children and adolescents* (pp. 103–121). The Guilford Press.

How to cite this article: Santiago, C. D., Bustos, Y., Sosa, S. S., Jolie, S. A., Flores Toussaint, R., Gebhardt, S., Stern, D., & Budd, K. S. (2022). Examining the implementation of Teacher–Child Interaction Training–Universal in public schools. *Psychology in the Schools*, 59, 2208–2228. <https://doi.org/10.1002/pits.22753>