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# Motivational Interviewing Skills for Coaching: A Feasibility Study Examining Training Fidelity, Satisfaction, and Impact

Andy J. Frey <sup>a</sup>, Jason W. Small <sup>b</sup>, Shantel Crosby<sup>c</sup>, Jon Lee <sup>c</sup>, and Hill M. Walker<sup>d</sup>

<sup>a</sup>University of Missouri; <sup>b</sup>Oregon Research Institute; <sup>c</sup>University of Louisville; <sup>d</sup>University of Oregon

## ABSTRACT

Coaching is recognized as an implementation strategy to support teachers' use of effective instructional practices, and motivational interviewing (MI) has been recognized as a promising implementation technique to support this strategy. In this article, we present the results of a feasibility study to evaluate the fidelity, satisfaction, and impact of an MI skills training for instructional support personnel (ISP). Thirty-one ISP were randomized to Coaching with MI skills (C-MI) or Coaching with Business-as-Usual Skills (C-BAU) conditions. ISP in both conditions received training in a four-step coaching model designed to impact instructional practices with teachers. Trainees in the C-MI condition also received skill-based training in MI. Following training, Trainees in both conditions implemented the coaching model with up to two teachers. Training fidelity and satisfaction with the training were high in both conditions. At posttest, trainees in the C-MI condition reported significantly higher levels of coaching self-efficacy and demonstrated MI competency (i.e. skill in a simulated practice setting) compared to trainees in the C-BAU condition. Additionally, trainees in the C-MI condition met established thresholds of MI proficiency (i.e. skill while implementing the CBP procedures with teachers) at statistically higher rates than trainees in the C-BAU condition. The findings suggest that this training approach results in high demonstrated MI competence and self-efficacy. The implications of these findings and future research are discussed.

## ARTICLE HISTORY

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Two decades ago, a seminal review by Fixsen et al. (2005) examined the adoption and implementation of evidence-based practices across several disciplines and demonstrated that despite significant knowledge regarding which intervention approaches worked to solve significant social problems, our ability to adopt and apply effective practices with fidelity remains limited. Since that time, the field of education has acknowledged coaching as a viable implementation strategy for improving the fidelity of evidence-based practices (Ennis et al., 2019; Owens et al., 2014; Pas et al., 2023). Erchul (2023) notes that a single definition of coaching does not currently exist yet recognizes the following definition by Kraft et al. (2018) as useful for distinguishing coaching

from other professional roles. Kraft et al., describe the coaching process as one in which:

... instructional experts work with teachers to discuss classroom practice in a way that is (a) individualized—coaching sessions are one-on-one; (b) intensive—coaches and teachers interact at least every couple of weeks; (c) sustained—teachers receive coaching over an extended period of time; (d) context specific—teachers are coached on their practices within the context of their own classroom; and (e) focused—coaches work with teachers to engage in deliberate practice of specific skills. (p. 553)

Coaching models are relatively consistent regarding implementation procedures and typically include a) initial meeting; b) assessment of current practices or fidelity; c) feedback session; and d) planning component. Several factors have been identified that may impact the quality of a coaching relationship, including teacher motivation, openness to receiving coaching, intervention complexity, and teacher burnout and stress (Holdaway & Owens, 2015). Herman et al. (2022) also note that interviewing skills, or the way coaches talk and respond to a teacher while implementing coaching procedures can also impact the quality of the coaching relationship.

The lack of attention to how communication skills contribute to coaching has led Frey et al. (2017) and W. M. Reinke et al. (in press) to conclude there is a substantial need for professional development models that clearly and comprehensively specify: (a) the conversational skills school professionals need to successfully influence teacher practices; (b) the scope and sequence of professional development systems, capable of equipping professionals who coach, with these requisite skills; and (c) proficiency standards for conversation skills that are empirically associated with improvements in teacher implementation of effective management practices and student outcomes.

Motivational interviewing (MI) is “a particular way of talking with people about change and growth to strengthen their own motivation and commitment” (Miller & Rollnick, 2023, p. 3). Lyon et al. (2024) identified MI as the predominant method within the coaching and consultation literature to enhance implementer motivation. In a recent scoping review, J. Small et al. (2025) identified several MI-infused coaching models designed to strengthen teachers’ classroom management repertoire. To date, most MI-focused research has not sufficiently conceptualized or measured MI skill as a training outcome or as a specific technique within the coaching process. This is particularly noteworthy, given that researchers and practitioners employing MI outside of school-based contexts have observed for decades that skillful MI use does not occur without sufficient training and also noted that documenting the effects of training is challenging due to the lack of measures with evidence of reliability and validity (Miller & Rollnick, 2023). MI literature makes clear learning the approach requires training recipients to participate in didactic workshops, receive individualized feedback, and access

to ongoing support promoting reflection and improved implementation. Prioritizing training and documenting MI quality, as noted by J. Small et al. (2025) as well as the guest editors of this special issue (See introduction to the special issue), show that applications of MI in school settings should transparently describe training procedures, including the credentials of the trainer, the implementation strategies (e.g., workshops, consultation) and techniques (e.g., role-play, modeling, feedback) used, and the post-training support needed to minimize post-training drift. Addressing these gaps in the literature requires researchers to consider and rigorously measure MI skill as outcome in the context of training studies.

### **Motivational Interviewing Training and Assessment System**

The Motivational Interviewing Training and Assessment System (MITAS) is a comprehensive professional development system that closely matches the training procedures used to develop skilled practitioners in the field of substance and alcohol use (Frey et al., 2017). To date, it is the only empirically based and publicly available (<https://moprevention.org/rumis/>) MI training model that has been developed for school-based practice. Researchers have used the MITAS to train early childhood consultants, social work students who support middle school students, school psychologists working with advanced placement high school students, and Instructional Support Personnel (ISP; e.g., school social workers, school psychologists, school counselors, resource teachers, behavioral consultants) who support caregivers with parenting practices (Frey et al., 2017, 2022; Iachini et al., 2018; O'Brennan et al., 2020; J. W. Small et al., 2021). In these contexts, participants have rated engagement as high, completion of the MITAS as feasible, and have reported high levels of satisfaction. A few of these evaluations have shown encouraging gains in MI competency following training, and J. W. Small et al. (2021) and Frey et al. (2022) also demonstrated that MITAS participants were able to meet established thresholds of MI proficiency, or MI skill levels, during intervention implementation.

From 2016–2019, the MITAS was used to support the training of ISP who coach and consult with teachers. This version of the MITAS retained the MI training content, format, and training techniques used in previous MITAS versions but differed in two ways. First, we incorporated Miller and Rollnick (2023) recent updates to MI. Second, we tailored the MITAS's interactive content to align with the delivery of MI within structured coaching focused on increasing teachers' use of positive feedback and opportunities to respond (i.e., the proximal outcomes of the study). The MITAS training for this study consisted of (a) four MI skills modules (A-D) delivered via interactive in-person workshops, (b) post-workshop standardized teacher routines, and (c) an on-going

professional learning community. Prior to participation in the MITAS, participants also received training in coaching procedures and target teacher practices. Each of these training components is described below.

### *Training in coaching procedures and target teacher practices*

The coaching procedures included the following steps: Engage, Review Current Practices, Focus, and Plan. An overview of the steps is provided in [Table 1](#). While coaching models or frameworks in the literature use somewhat different procedures, the rationale for the coaching procedures we selected (i.e., Engage, Review Current Practices, Focus, and Plan) was that they were common in the literature and because it was important to have the initial step primarily focused on relationship building since MI places a premium on this activity. These steps align very well with popular models such as (a) the *Classroom Check-Up*, which is a brief motivational enhancement intervention for consulting with teachers around classroom behavior management skills (W. Reinke et al., 2008; W. M. Reinke et al., 2011) and (b) the 5-step problem solving approach (Kratochwill & Pittman, 2002), which includes relationship development, problem identification, problem, analyses, implementation and evaluation.

The teacher practices targeted during the coaching process were teacher's provision of opportunities to respond (OTR) and positive feedback, which included teacher use of behavior specific praise and general praise. These were chosen because they are: (a) increasingly identified as a component of EBPs (Hattie & Timperley, 2007; Matheson & Shriver, 2005); (b) correlated with academic engagement and reduced classroom disruptions (T. M. Scott et al., 2014; Sutherland et al., 2003); and (c) resistant to sustainable change with typical coaching (Lewis et al., 2014).

**Table 1.** Coaching best practice (CBP) model overview.

Step	Session	Activities, Strategies, and Objectives
1. Engage	1	<ul style="list-style-type: none"> <li>• Introductions and overview of coaching model steps/session</li> <li>• Complete Teacher Purpose Interview</li> <li>• Complete Values Discovery Activity</li> <li>• Prepare for Step 2/Session 2</li> </ul>
2. Review Current Practices	2	<ul style="list-style-type: none"> <li>• Discuss OTRs and Positive Feedback handout</li> <li>• Discuss teacher observation graphs</li> </ul>
3. Focus	2 or 3	<ul style="list-style-type: none"> <li>• Reflect on observation data</li> <li>• Identify potential behavior change</li> </ul>
4. Plan	4	<ul style="list-style-type: none"> <li>• Identify goals</li> <li>• Complete Teacher Action Form</li> <li>• Offer ongoing support</li> </ul>
	Additional as needed.	<ul style="list-style-type: none"> <li>• Extended consultation</li> <li>• Provide closure</li> </ul>

### ***MI skills modules***

There were four MI skills modules. Module A introduced trainees to key MI concepts and definitions and provided an overview of relational and technical skills and strategies. Module B introduced trainees to open-ended questions and reflections within the engagement process (e.g., 1<sup>st</sup> step of the coaching model). Module C emphasized Exchanging Information and Focusing, continued to emphasize open-ended questions and reflections, and introduced the other two skills associated with MI practice: affirmations and summaries. In Module C, all four OARS are practiced within the context of the 2nd (reviewing current practices) and 3rd (focusing) steps of the coaching model. Trainees are also taught to recognize commitment language, elicit change talk, and soften sustain talk during module C. The final MI module, Module D, corresponded to the last coaching step (i.e., plan). In this module, trainees learn to hold focus on one or more areas of instruction identified by the teacher as a priority and to evoke the teacher's reasons for wanting to change, or the why and how of change. Thus, trainees were taught how to recognize, encourage, and respond effectively to change talk, and then transition to a written action plan. Each module had numerous opportunities for active engagement embedded within the presentations, as well as exercises that corresponded to activities completed in the four-step coaching model. A summary of MI modules A-D, including the title, topics covered, and learning objectives is available in [Table 2](#).

### ***Standardized teacher and professional learning community***

The standardized teacher routine provides an opportunity for trainees to practice and receive individualized feedback on their application of what was taught in training. During this component of the training, a trainer plays the role of the teacher and provides performance feedback following role play, with an emphasis on ways the trainee used MI skills effectively as well as how they could improve. The professional learning community (PLC) component included monthly consultation groups, in which trainees who used MI could meet to discuss and reflect on the conversations they had with teachers.

The current study took place within the context of a larger randomized controlled trial (RCT) that evaluated the process and impact of training ISP to use MI skills as a coaching technique. Essentially, we conducted two related studies simultaneously, with one focused on evaluating training outcomes (i.e., impact of training on MI skill use) and the other focused on coaching outcomes (i.e., impact of coaching on teacher and student outcomes). Herein, we present the first of the two studies. The purpose of this training feasibility study was to evaluate the MITAS training model with respect to implementation fidelity, satisfaction, and impact on training outcomes. Specifically, we

**Table 2.** Summary of MITAS modules A-D.

Module A: Introduction
Topics Covered <ul style="list-style-type: none"> <li>• The History of MI</li> <li>• The Theory of MI</li> <li>• Key concepts of MI: Ambivalence, Change Talk, Sustain Talk, and the Fixing Reflex</li> <li>• The MI Spirit: Finding the right mind-set and “posture”</li> <li>• The Technical Skills of MI: OARS</li> <li>• The MI Tasks: The roadmap of MI</li> </ul>
Learning Objectives <ol style="list-style-type: none"> <li>(1) Define MI and describe its key concepts</li> <li>(2) Explain and describe the MI Spirit and OARS</li> <li>(3) Recognize how the MI processes and skills complement and support the CBP procedures</li> </ol>
Module B: Engage
Topics Covered <ul style="list-style-type: none"> <li>• Teacher Interview</li> <li>• Values Discovery</li> <li>• Affirmations Exercise</li> <li>• Summaries</li> </ul>
Learning Objectives <ol style="list-style-type: none"> <li>(1) In the context of work with teachers, demonstrate the use of open-ended questions and affirmations.</li> <li>(2) Define/describe simple and complex reflections.</li> <li>(3) Demonstrate the use of reflection in the context of a support staff-teacher interaction.</li> <li>(4) Define/describe a summary and demonstrate its use in the context of a support staff-teacher interaction.</li> <li>(5) Identify the critical role of values in any discussion of change.</li> <li>(6) Generate at least two open-ended values questions.</li> <li>(7) Identify OARS skills within a verbatim transcript.</li> </ol>
Module C: Exchange Information and Focusing
Topics Covered <ul style="list-style-type: none"> <li>• Strategies for exchanging information (elicit-provide-elicite)</li> <li>• How to search for Target Behaviors</li> <li>• Responding to sustain Talk</li> </ul>
Learning Objectives <ol style="list-style-type: none"> <li>(1) Be able to exchange information in an MI adherent fashion</li> <li>(2) Be able to describe <i>focusing</i> and <i>evoking</i>, and how the processes are facilitated by the MI Spirit and use of OARS</li> </ol>
Module D: Plan
Topics Covered <ul style="list-style-type: none"> <li>• Planning for change</li> <li>• Signs of readiness</li> <li>• Transition from Evocation to Planning</li> <li>• Differentiating Motivational Obstacles to Change</li> <li>• Eliciting and Strengthening Confidence Talk</li> </ul>
Learning Objective <ol style="list-style-type: none"> <li>(1) Identify teacher change focus and evoke their motivations for changing</li> </ol>

evaluated two indicators of training fidelity: trainer adherence and trainee responsiveness (i.e., engagement). Regarding satisfaction, we were interested in trainees’ perceptions of acceptability, appropriateness, and feasibility. Finally, we evaluated three measures of training impact: trainees’ consultation self-efficacy, MI competency (i.e., trainees’ MI skill in a simulated practice setting), and MI proficiency (i.e., trainees’ MI skill while implementing the coaching procedures with teachers). We hypothesized that adherence, engagement, and satisfaction would be similar for participants in both conditions. We also hypothesized ISP randomized to the MI skills condition would report higher consultation self-efficacy and score better on measures of MI

competency. Finally, we hypothesized that more ISP in the MI skills condition would meet established thresholds of MI proficiency during their coaching sessions with teachers than with their CBP only counterparts.

## Method

### Participants

We recruited and randomized ISP participants across three waves. Participating ISP from waves 1 and 2 (academic year 2022–23) worked within one district in Lexington, Kentucky. ISP participating during wave 3 (academic year 2023–24) worked within another district in Jefferson County, Missouri. In total, 31 ISP were recruited. ISP were randomized to one of two conditions: Coaching with MI Skills (C-MI) or Coaching with Business-as-Usual Skills (C-BAU). Fifteen ISP were randomized to the C-MI condition and 16 were randomized to the C-BAU condition. Two ISP dropped out prior to training (1 in each condition) and two ISP dropped out after training (1 in each condition), reducing the sample of participating ISP to 27 (C-MI = 13, C-BAU = 14). ISP demographics are reported in Table 3. ISP in the two conditions did not differ on collected demographic variables, including education level and title. Additionally, the two groups were comparable with respect to previous MI training, current use of MI, MI competency, and consultation self-efficacy at baseline. For each ISP, two general education teachers were recruited to participate in the study. One teacher dropped out of the study during wave 2 citing that she did not have time to participate. Thus, in total 53 teachers participated across the three waves (26 working with coaches randomized to C-MI and 27 working with coaches randomized to C-BAU). All

**Table 3.** ISP demographics by condition.

	Total ( <i>n</i> = 27)	C-BAU ( <i>n</i> = 14)	C-MI ( <i>n</i> = 13)	Chi-Square	<i>p</i> -value
Age <i>M</i> ( <i>SD</i> )	39.8 (8.7)	38.3 (8.4)	41.5 (9.1)	−0.94	.356
% Female	17 (63.0)	9 (64.3)	8 (61.5)	0.02	.883
% Caucasian	23 (85.2)	12 (85.7)	11 (84.6)	0.01	.936
% Black	5 (18.5)	3 (21.4)	2 (15.4)	0.16	.686
Education Level				1.61	.448
% BS/BA degree	1 (3.7)	0 (0.0)	1 (7.7)		
% MS/MA degree	17 (63.0)	10 (71.4)	7 (53.8)		
% Ed.S degree	9 (33.3)	4 (28.6)	5 (38.5)		
Title				5.46	.141
% Coach	4 (14.8)	0 (0.0)	4 (30.8)		
% Behavior Interventionist	6 (22.2)	3 (21.4)	3 (23.1)		
% SISIP	11 (40.7)	7 (50.0)	4 (30.8)		
% Administrator	6 (22.2)	4 (28.6)	2 (15.4)		
MI exposure and use					
% No previous MI training	24 (88.9)	12 (85.7)	12 (92.3)	0.30	.586
% No current use of MI	20 (74.1)	10 (71.4)	10 (76.9)	0.11	.745

Ed.S. = Education Specialist degree (i.e., MA/MS +1 year); SISIP = Specialized Instructional Support Personnel. WASE = Written Assessment of Simulated Encounters. Reported test statistics are *t* for continuous and  $\chi^2$  for dichotomous measures.



**Table 4.** Teacher demographics by condition.

	Total ( <i>n</i> = 53)	C-BAU ( <i>n</i> = 27)	C-MI <sup>†</sup> ( <i>n</i> = 26)	Chi-Square	<i>p</i> -value
% Female	39 (75.0)	20 (74.1)	19 (76.0)	0.03	.873
Teacher Race				2.88	.237
% Black	5 (9.6)	1 (3.7)	4 (16.0)		
% White	44 (84.6)	25 (92.6)	19 (76.0)		
% Multi-racial	3 (5.8)	1 (3.7)	2 (8.0)		
Education Level				1.58	.665
BA/BS degree	34 (65.4)	16 (59.3)	18 (72.0)		
MA/MS/Ed.S.	17 (32.7)	10 (37.0)	7 (28.0)		
Doctoral degree	1 (1.9)	1 (3.7)	0 (0.0)		
Teaching Experience					
% teaching 5+ years	16 (30.2)	9 (33.3)	7 (26.9)	0.26	.611
% teaching SPED 5+ years	15 (28.3)	8 (29.6)	7 (26.9)	0.05	.827

<sup>†</sup>Baseline data were only available for 25 of 26 CBP+MI teachers. Ed.S. = Education Specialist degree (i.e., MA/MS +1 year). Reported test statistics are *t* for continuous and  $\chi^2$  for dichotomous measures.

teachers were informed they would be randomly assigned to MI and non-MI conditions during the consent process. Teacher demographics are reported in Table 4. There were no statistically significant differences in demographics between teachers in the C-MI and C-BAU conditions.

### Procedures

This study was approved by the University of Louisville Human Subjects Protection Program (IRB of Record, IRB # 19.0607). All participating ISP and teachers provided their written informed consent. We partnered with school districts to identify school personnel (i.e., employed by the district) who engage in academic or behavioral coaching with teachers as part of their core job responsibilities. To isolate the MI training for our feasibility study, we randomized ISP to training and coaching procedures that were identical, except for the MI skills training. ISP in both conditions received in-person training in coaching procedures and teacher instructional practices module and participated remotely (via zoom) in standardized teacher routines prior to implementation with teachers and ongoing support via PLCs during implementation with teachers. ISP in the C-MI also received in-person skill-based training in MI (Modules A-D). While participants in both conditions participated in the standardized teacher routines and PLC meetings, MI was not discussed in the C-BAU condition; the trainers had not themselves been trained to use MI. ISP in both conditions implemented the coaching procedures with 53 regular education teachers. We standardized the coaching procedures and target teacher practices across conditions to isolate the impact of the MI skills.

## Measures

Measures were collected to document implementation fidelity, satisfaction, and impact of the trainings.

**Training fidelity.** The *facilitator's checklist* is a researcher-developed checklist designed to document which components the trainers provided to ISP (i.e., adherence) and the extent to which trainees were engaged in the components (i.e., responsiveness); each subscale contained four items measured on a 5-point Likert scale. Delivery of components was reported using a dichotomous response (i.e., yes, no) for each participant. Engagement was assessed using a 6-item scale, rated on a five-point Likert scale. Trainers reported on each participant's engagement in the training by responding to the four items assessing the trainees' (a) attentiveness, (b) overall motivation to participate, (c) willingness to ask questions, and (d) willingness to try new techniques.

**Training satisfaction.** Upon completion of each training component, ISP reported on the acceptability, appropriateness, and feasibility (Weiner et al., 2017) of the training. Each item was rated on a 5-point Likert scale with higher scores indicating higher levels of acceptability, appropriateness, or feasibility. Coefficient alpha for the measure was .901 for acceptability, .916 for appropriateness, and .895 for feasibility.

**Training impact.** Outcomes to assess training impact included consultation self-efficacy, MI competency (i.e., skill in a simulated practice setting), and MI proficiency (i.e., skill while implementing the CBP procedures with teachers).

**Consultation self-efficacy.** Prior to training, ISP from both conditions completed an adapted and abbreviated version of Guiney et al. (2014) *Consultation Self-Efficacy Scale* (CSES). The scale incorporated 16 of 19 items that Guiney and Zibulsky (2017) identified in their CSES process scale and included five additional items from the original CSES scale (items 11, 12, 13, 32, and 33). In most cases, minor wording changes were made (e.g., changing consultation to coaching or consultee to teacher). Like the original, this 21-item version asked respondents to report the extent to which they were confident with each statement on a 9-point scale ranging from 1 (Not at all confident) to 9 (Extremely confident). CSES items related to consultation skills generally and were therefore not MI specific. The following is an example from this measure: *Can elicit responses from a teacher that are supportive of behavior change*. Coefficient alpha for the measure was .92.

**MI competency.** We assessed MI competency using *The Written Assessment of Simulated Encounters-School Based Applications* (WASE-SBA; Lee et al., 2013).

The WASE-SBA measures a person's ability to generate reflective responses and is scored by rating each response on a 5-point scale, with a rating of 1 being indicative of weak reflective practice containing MI-non-adherence skills, 3 indicative of simple reflective practice, and 5 indicative of complex reflective practice that infers potential parent, teacher, or adolescent behavior change. The scores for each of the six responses are combined to reflect the overall level or degree of reflective practice across the measure. The WASE-SBA contains directions, item stems and prompts, a scoring guide, and a scoring form. As reported in Lee et al. (2014), a prior version of the WASE-SBA was found to have adequate internal consistency ( $\alpha = .71$ ) and excellent inter-rater reliability (total score ICC = .92).

**MI proficiency.** The final measure of training impact was the *Motivational Interviewing Treatment Integrity* (MITI) code 4.2.1 (Moyers et al., 2014). The MITI is a coding system used to examine the verbal behavior of a practitioner, counselor, or coach delivering MI. The MITI enables examination of the four MI processes of engaging, focusing, evoking, and planning through coding of four global scores and 10 behavior counts. A trained coder uses the MITI to review a random 20-minute audio segment, tallying counts for each of ten behavior categories (e.g., simple reflections [SR], complex reflections [CR], affirmations, questions). Then, after listening to the audio segment, the coder provides a global rating on a 5-point scale for four global dimensions: cultivating change talk (CCT), softening sustain talk (SST), partnership, and empathy. The highest anchor for CCT indicates the coach or practitioner "shows a marked and consistent effort to increase the depth, strength, or momentum of the client's language in favor of change" (p. 5). The highest anchor for SST indicates "a marked and consistent effort to increase the depth, strength, or momentum of the client's language in favor of the status quo" (p. 7). These raw counts and scores are combined to generate four summary scores for (a) relational skills, (b) technical skills, (c) the percent of CRs, and (d) the ratio of reflections to questions. The relational global summary score is the mean rating of the partnership and empathy items. The technical global summary score is calculated as the mean score of CCT and SST. Percent of complex reflections is calculated by dividing CR by total reflections (e.g. SR + CR). Finally, as the name implies, the ratio of reflections to questions is the ratio of total reflections to the number of questions posed during a session.

An independent team of coders coded the audio-recordings in accordance with the MITI 4.2 coding manual. All members of the coding team completed MITI 4 training and reached 90% reliability on the MITI behavior counts and 100% reliability on the global scores. The coding team randomly sampled a 20-minute segment of each audio recording in accordance with the MITI's procedural guidelines.

In accordance with Moyers et al. (2016), we assessed inter-rater reliability (IRR) for the MITI global ratings, behavior counts, and summary measures via 2-way mixed effects, absolute agreement, average-measures intraclass correlations (ICCs). We used Cicchetti and Sparrow's (1981) benchmarks to categorize the quality of each ICC. For the current sample of recordings, reliability ranged from .85 to 1.00 on the global items. Reliability was excellent for all four global items. Reliability for the behavior counts ranged from .53 to .94. Reliability was excellent for eight of 10 behavior counts; fair for one item (i.e., Emphasize Autonomy) and non-calculable for one item due to a lack of variance (i.e., Confront). For the summary scores, ICCs ranged from .77 to .94. Reliability was excellent for all six summary scores.

### ***Analytic approach***

Descriptive statistics were used to examine the extent to which the training procedures were implemented with fidelity and to evaluate responsiveness (i.e., engagement) for the C-MI and C-BAU conditions. We calculated t-tests to test for group differences on these measures. To evaluate the impact of training, we also report descriptive statistics by condition and conducted t-tests to compare conditions on consultation self-efficacy and MI competency. For MI proficiency, we report the number and percentage of participants in each group who met the fair and good thresholds established for the MITI, and conducted chi squared tests to assess group differences. We used listwise deletion to handle missing data given that rates of missingness for the examined variables was less than 5% (i.e., 0% to 3.7%).

## **Results**

### ***Training fidelity***

There were no differences between trainers of participants from the C-MI and C-BAU conditions regarding training adherence. Specifically, participants from both conditions attended to all the required trainings and completed two standardized teacher sessions. Participation in PLCs was infrequent for both conditions.

No significant differences between groups were observed for responsiveness. Mean facilitator-reports of engagement were high across all workshop sessions for trainees from both conditions. For the C-MI condition ISP, which included MI modules A-D, mean item ratings were 4.6 ( $SD = 0.5$ ). Mean item ratings for the C-BAU workshops were 4.9 ( $SD = 0.3$ ). Finally, for the standardized teacher routines, mean item ratings for ISP from both conditions were 4.5 ( $SD = 0.6$ ).

**Table 5.** Acceptability, appropriateness, and feasibility scores by session and condition.

	C-MI			C-BAU	
	Coaching Module <i>M(SD)</i>	MI Modules <i>M(SD)</i>	ST <i>M(SD)</i>	Coaching Module <i>M(SD)</i>	ST <i>M(SD)</i>
Acceptability	4.7 (0.9)	4.9 (0.2)	4.9 (0.2)	4.3 (0.8)	4.7 (0.5)
Appropriateness	4.5 (0.9)	4.8 (0.3)	4.9 (0.3)	4.4 (0.7)	4.5 (0.7)
Feasibility	4.9 (0.3)	4.9 (0.2)	4.9 (0.3)	4.6 (0.5)	4.7 (0.5)

C = Coaching, MI = MI training; BAU = business as usual, ST = Standardized Teacher routines with feedback. All items were scored on a 5-point scale: 1 = not at all, 3 = moderately, 5 = extremely.

### **Training satisfaction**

Average acceptability, appropriateness, and feasibility ratings were not statistically different for trainees from the C-MI and C-BAU conditions. Participant feedback on the acceptability, appropriateness, and feasibility of the coaching procedures and target teacher practices module, MI modules (C-MI condition only), and standardized teacher routine is reported in Table 5. While not significantly different, scores were higher across training sessions for trainees randomized to the C-MI condition.

### **Training impact**

Impact data included consultation self-efficacy, MI competency, and MI proficiency during the coaching procedures with teachers.

#### **Consultation self-efficacy**

Baseline ISP self-efficacy scores ranged from 85 to 176. The mean score was 138.1 ( $SD = 20.4$ ). Baseline self-efficacy scores were equivalent for ISP in the C-MI condition ( $M[SD] = 137.1[16.3]$ ) and the C-BAU condition ( $M[SD] = 139.1[24.1]$ ). Following training and delivery of coaching sessions with at least one teacher, coaches in the C-MI condition reported significantly higher ( $t = 2.89$ ,  $p = .008$ ) levels of consultation self-efficacy ( $M[SD] = 163.0[15.0]$ ) as compared to coaches in the C-BAU condition ( $M[SD] = 144.3[21.7]$ ) who only received training in coaching procedures.

#### **MI competency**

At baseline, MI competency scores were comparable for ISP from the two training conditions ( $t = 0.63$ ,  $p = .537$ ). ISP in the C-MI training had mean competency scores of 12.8 ( $SD = 4.0$ ) at baseline, whereas ISP in the C-BAU condition had means scores of 13.8 ( $SD = 3.8$ ). Following training, ISP who participated in the C-MI condition demonstrated improved use of MI competency (i.e., reflective responding skill in a simulated practice setting;  $M[SD] = 20.3[6.2]$  vs.  $M[SD] = 15.3[5.0]$ ;  $t = 2.44$ ,  $p = .024$ ) relative to the ISPs in the C-BAU condition.

**Table 6.** Percent with MITI global scores above cutoffs by condition for all sessions.

	Total ( <i>n</i> = 142) <i>n</i> (%)	C-BAU ( <i>n</i> = 80) <i>n</i> (%)	C-MI ( <i>n</i> = 62) <i>n</i> (%)	Chi-Square	<i>p</i> -value
Technical global				9.56	.008
Threshold not met	16 (11.3)	13 (16.3)	3 (4.8)		
Fair*	89 (62.7)	53 (66.3)	36 (58.1)		
Good	37 (26.1)	14 (17.5)	23 (37.1)		
Relational global				14.93	.001
Threshold not met	80 (56.3)	56 (70.0)	24 (38.7)		
Fair	21 (14.8)	10 (12.5)	11 (17.7)		
Good	41 (28.9)	14 (17.5)	27 (43.5)		
Complex reflections				5.05	.080
Threshold not met	38 (27.0)	26 (32.9)	12 (19.4)		
Fair	12 (8.5)	4 (5.1)	8 (12.9)		
Good	91 (64.5)	49 (62.0)	42 (67.7)		
Ratio of Reflections:Questions				13.05	.001
Threshold not met	100 (71.4)	66 (83.5)	34 (55.7)		
Fair	31 (22.1)	10 (12.7)	21 (34.4)		
Good	9 (6.4)	3 (3.8)	6 (9.8)		

\*Fair and Good were mutually exclusive ratings.

**Table 7.** Percent with MITI global scores above cutoffs by condition; steps 1–4 sessions.

	Session 1		Session 2		Session 3		Session 4	
	C-BAU ( <i>n</i> = 22) <i>n</i> (%)	C-MI ( <i>n</i> = 18) <i>n</i> (%)	C-BAU ( <i>n</i> = 23) <i>n</i> (%)	C-MI ( <i>n</i> = 17) <i>n</i> (%)	C-BAU ( <i>n</i> = 21) <i>n</i> (%)	C-MI ( <i>n</i> = 16) <i>n</i> (%)	C-BAU ( <i>n</i> = 14) <i>n</i> (%)	C-MI ( <i>n</i> = 10) <i>n</i> (%)
Technical global								
Threshold not met	1 (4.5)	3 (16.7)	8 (34.8)	0 (0.0)	3 (14.3)	0 (0.0)	1 (7.1)	0 (0.0)
Fair	19 (86.4)	11 (61.1)	11 (47.8)	9 (52.9)	14 (66.7)	8 (50.0)	9 (64.3)	7 (70.0)
Good	2 (9.1)	4 (22.2)	4 (17.4)	8 (47.1)	4 (19.0)	8 (50.0)	4 (28.6)	3 (30.0)
Chi Square		3.43		8.83*		5.39		0.75
Relational global								
Threshold not met	11 (50.0)	8 (44.4)	16 (69.6)	4 (23.5)	19 (90.5)	6 (37.5)	10 (71.4)	5 (50.0)
Fair	5 (22.7)	2 (11.1)	3 (13.0)	5 (29.4)	0 (0.0)	2 (12.5)	2 (14.3)	2 (20.0)
Good	6 (27.3)	8 (44.4)	4 (17.4)	8 (47.1)	2 (9.5)	8 (50.0)	2 (14.3)	3 (30.0)
Chi Square		1.66		8.32*		11.90**		1.23
Complex reflections								
Threshold not met	3 (13.6)	4 (22.2)	10 (43.5)	5 (29.4)	9 (45.0)	1 (6.3)	4 (28.6)	2 (20.0)
Fair	3 (13.6)	1 (5.6)	1 (4.3)	3 (17.6)	0 (0.0)	2 (12.5)	0 (0.0)	1 (10.0)
Good	16 (72.7)	13 (72.2)	12 (52.2)	9 (52.9)	11 (55.0)	13 (81.3)	10 (71.4)	7 (70.0)
Chi Square		1.06		2.25		8.22*		1.57
Ratio of Reflections:Questions								
Threshold not met	20 (90.9)	11 (64.7)	18 (78.3)	7 (41.2)	16 (80.0)	9 (56.3)	12 (85.7)	6 (60.0)
Fair	2 (9.1)	6 (35.3)	2 (8.7)	8 (47.1)	4 (20.0)	5 (31.3)	2 (14.3)	2 (20.0)
Good	0 (0.0)	0 (0.0)	3 (13.0)	2 (11.8)	0 (0.0)	2 (12.5)	0 (0.0)	2 (20.0)
Chi Square		4.04*		7.92*		3.67		3.43

\*Statistically significant at the  $p < .05$  level; \*\*  $p < .01$ .

### MI proficiency

To evaluate impact of the MI skills training we measured MI proficiency, or MI skill while implementing the coaching procedures with teachers. We recorded 142 sessions between ISP-teacher dyads over the course of the study (C-MI = 62, C-BAU condition = 80). As reported in Table 6, when all sessions (1–4) were aggregated, ISP who participated in the C-MI condition demonstrated statistically higher levels of MI proficiency with respect to

technical skills, relational skills, and the ratio of reflections to questions based on independently coded session level data compared to the ISPs in the C-BAU condition. However, the differences in MI proficiency levels were greater for steps 2 and 3 (see [Table 7](#)) than for steps 1 and 4.

## Discussion

This study advances the literature by providing evidence that an MI training, narrowly tailored for school personnel who coach teachers to improve implementation of effective instruction strategies, can be implemented with fidelity, and is satisfactory to participants as well as impactful. The study is an important step toward establishing replicable procedures to effectively train ISP to use MI skills as an implementation technique within a coaching relationship. This study also provides an important step for understanding the promise of using MI skills as an implementation technique capable of influencing teacher and student behavior (Frey et al., 2023; Pas & Bradshaw, 2021).

Notable strengths of the current training study include randomization to identical coaching procedures, which allowed us to isolate MI skills training as the independent variable, and use of valid and reliable measures to evaluate MI competency and proficiency. As hypothesized, our findings demonstrate that the MITAS training can be implemented with fidelity and was viewed favorably by training participants, as indicated by high satisfaction ratings. Also as hypothesized, ISP who received the MI skills training had higher posttest scores on indicators of consultation efficacy, MI competency, and MI proficiency. Importantly, the inclusion of a structured coaching model, the standardized practice routine, and the PLCs for trainees in the C-BAU condition likely made this counterfactual likely more active than a true BAU condition.

The most significant findings in the current study are related to the impact of MI skills training. Overall, results build on previous findings that demonstrate participation in the MITAS training (Frey et al., 2017) can result in ISP who meet established thresholds of MI proficiency (Frey et al., 2022; J. W. Small et al., 2021). The impact of the MI skills training was evidenced by statistically significant differences in MI competency of trainees in the C-MI condition as compared to trainees in the C-BAU condition following training. More importantly, a greater percentage of ISP who participated in the C-MI condition met MI proficiency thresholds with respect to technical skills, relational skills, and the use of reflections to questions during implementation of the coaching procedures compared to the ISPs in the C-BAU condition. However, our team was surprised at the low percentage of those in the C-MI condition who met the relational skills proficiency threshold. This finding suggests greater attention should be added to the relational skills in the MITAS.



An important aspect of our MI proficiency analysis is the between session differences observed by condition. Importantly, the differences in MI proficiency were most apparent in steps 2 and 3 of the coaching procedures. These are the steps during which we expected MI skills to be used most often for those trainees who participated in the C-MI condition for two reasons. First, the coaching procedures we trained ISP to implement may have encouraged even non-MI trained ISP to use skills that would be recognized by evaluators using the MITI. Specifically, we trained ISP in both conditions to conduct a purpose interview and a values discovery activity with their teachers in their first coaching session (i.e., step 1). The structured interview contained open-ended questions as prompts and the values discovery activity is very commonly used in MI-informed interventions. Thus, while we did not train ISP in the C-BAU condition to use MI skills, they were likely led toward using some MI skills and adopting the MI spirit because of the structure we provided. Second, the OARS skills are not all specific to MI; specifically, open-ended questions, affirmation, reflections, and summaries- while they go by different names and vary to some degree- are taught within many clinical counseling modalities.

Our study had three noteworthy limitations. First, our sample size was relatively small. Additionally, our participating ISPs were selected via convenience sampling; thus, it is not possible to assume the results would generalize to all ISP who coach teachers. Finally, four ISP dropped out during the study. Because two were in the C-MI and two were in the C-BAU condition, we do not believe attrition impacted the training impact data.

### ***Future research***

Results of the current study can be used to inform future research related to coaching. One important area for further research involves whether and how differential MI skill training within the coaching procedures impacts the coach-teacher relationship, teacher behavior change, and student behavior change. As noted previously, our research team collected data that will inform the value of MI skills as an implementation technique within the coaching relationship (T. Scott et al., 2024). While MI proficiency in the context of this study is considered a training outcome, when the coaching process is examined in subsequent studies, MI proficiency will serve as a mediator. If MI proficiency mediates the relationship between coaching and teacher and student outcomes, it will provide impressive evidence that MI skills are a promising implementation technique. We also believe it is critical to conceptualize MI proficiency as an indicator of coaching quality when coaching procedures are the independent variable and MI skill is expected to be present in all experimental conditions. Whether as a mediator or an indicator of



coaching fidelity, including valid and reliable measures of MI skill has the potential to advance our understanding of the value of MI skill as an implementation technique that can enhance coaching substantially. Specifically, it has the potential to contribute to our understanding of how and why coaching is effective, and to identify the mechanisms that make it efficacious (Frey et al., 2023; Pas & Bradshaw, 2021).

Additionally, future research should examine the relationship between MI skill and teacher motivation to change (e.g., frequency of teacher use of commitment language, regulation style; controlled vs. autonomous motivation) (Frey et al., 2023). Future research should also examine empirically driven MI proficiency thresholds. Regarding proficiency thresholds, an astute observer will have noticed that although a high percentage of ISP in the C-MI condition met the MITI proficiency thresholds (fair and good), quite a few of the ISP in the C-BAU condition met the MITI proficiency thresholds as well. Because the proficiency thresholds established using the MITI are derived from expert opinion, the results are difficult to interpret and require further investigation. Specifically, it would be very valuable to identify the distinctions in MI skill that impact teacher and child outcomes and to establish proficiency thresholds based on outcomes.

Another important consideration is the cost and cost-effectiveness of MI skills training as well as the cost effectiveness of supplementing standard coaching procedures with MI skills as an implementation technique. Future research should also investigate the long-term costs and benefits of MI interventions, including the potential savings associated with improved student outcomes. To this end, the field would benefit from studies comparing various dosage levels (e.g., none, light, intense) of MI training. While a substantial evidence base is beginning to emerge that demonstrates the MITAS, as well as its narrowly tailored adaptations for specific populations (Frey et al., 2017) is effective for developing MI competency and proficiency (Frey et al., 2019; Iachini et al., 2018; Suldo et al., 2018). It is possible other MI training models, including some that are less resource intensive, could be efficacious as well. Finally, qualitative data on the trainees' experiences in the MITAS training would be valuable, and potentially help explain why four of our 31 participants (13%) dropped out of the study.

## Conclusion

MI skills are a promising implementation technique related to coaching, and careful attention to MI skill in the context of applied research has the potential to advance the literature regarding the active ingredients or mechanisms that make coaching efficacious (Frey et al., 2023; Pas & Bradshaw, 2021). The MITAS training was designed to address the practical needs of school-based coach practitioners seeking to improve

teacher behavioral change. By focusing on the development of specific conversational skills, the training provides a concrete approach for ISP to support the autonomy of teachers in implementing effective changes in their behavior. The emphasis on skill-based competency and proficiency standards offers a valuable tool for evaluating the promise of MI skills as an implementation technique. Although our study provides evidence for the feasibility of, satisfaction with, and impact of MI skills training, further research is needed to fully understand the cost, cost-effectiveness, and impact of MI skills as an implementation technique in the context of coaching.

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### Notes on contributors

*Andy Frey* is a professor at the University of Missouri. His primary interest areas include school mental health services, early intervention, and applications of motivational interviewing in school settings.

*Jason Small* is an associate scientist at the Oregon Research Institute. His work focuses on the development of interventions for children experiencing social-emotional difficulties and their families, the evaluation of training and assessment systems, and the use of Motivational Interviewing in school-based settings.

*Shantel Crosby* is an associate professor at the University of Louisville. Her research focuses on wellbeing and adverse childhood experiences among youth who are court-involved or at risk of court-involvement, with emphasis on youth of color. She examines trauma and behavioral/socioemotional health among this population and explores trauma-informed responses to maladaptive youth behaviors.

*Jon Lee* is the director of the Early Childhood Research Center at the University of Louisville. His research and teaching focuses on issues relating to family impact on very young children's emergent literacy development; factors pertaining to children's social, emotional, and behavioral adjustment to schooling; and applications of Motivational Interviewing (MI) in educational contexts.

*Hill Walker* is professor emeritus at the University of Oregon. His areas of research interest and expertise include universal screening, early intervention, school safety, antisocial behavior in youth, social skills, and delinquency.

## ORCID

Andy J. Frey  <http://orcid.org/0000-0002-7493-5728>

Jason W. Small  <http://orcid.org/0000-0001-5651-6944>

Jon Lee  <http://orcid.org/0000-0003-2575-5568>

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