



Teachback methodology: building global training capacity with a unique training-of-trainers course

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To meet the global demand for training assistance in tuberculosis (TB) and human immunodeficiency virus (HIV) infection, a systematic model was created to conduct training-of-trainers courses. The Teachback Methodology curriculum was created using adult learning principles and implemented by collaborating with partners to create training-of-trainers courses. A total of 42 courses were held in 18 countries, resulting in 901 participants being able to enhance their training skills. During training-of-trainers courses, the participants practice teaching a course. Trainers observe the participants' performance and provide feedback on training skills and accuracy of course content. The methodology can be integrated with TB and HIV courses to enhance training capacity and help build a competent workforce.

Developing a competent, motivated and fully supported tuberculosis (TB) and human immunodeficiency virus (HIV) health work force is critical to overcoming obstacles to achieving national and global health goals.¹ We present a model for ensuring that health care professionals have the knowledge and skills needed to perform their jobs competently.

The global demand for assistance in building training capacity for TB and HIV health programs is increasing. To respond to this demand, trainers at the US Centers for Disease Control and Prevention (CDC), in partnership with the University of Washington's International Training and Education Center on Health (I-TECH), developed the CDC Teachback Methodology Training Curriculum (CDC-TMTC). This methodology is unique in that it blends learning training skills with teaching course content. Teachback methodology is based on Gordon Pask's theory that learning occurs when one person teaches another person what they have learnt.² After reviewing various training-of-trainers courses, this was the only methodology we found that enabled participants to learn course content, enhance their training skills, and receive feedback from facilitators.

CDC staff use various forms of Teachback for teaching courses on specific diseases and skills. The authors of this paper created an adaptable curriculum that expands the methodology for it to be integrated with a wide variety of topics and training skills.

The curriculum provides a systematic method for conducting training-of-trainer courses that can be integrated into an existing program-specific course, such as the National TB Surveillance System Course.³ This is

the 'targeted course' that participants will learn to teach to others. The goal of the Teachback training-of-trainers course is to enhance participants' training skills to ensure that they are better prepared to train health care professionals.

TEACHBACK METHODOLOGY

The CDC-TMTC is based on participatory training techniques, considered as most effective for training adults.⁴ The methodology provides an opportunity for participants to build sustainable training skills. Examples of the target audience include physicians, nurses, epidemiologists, health educators, laboratory specialists, and surveillance staff. Each participant is unique and may have a limited or a vast knowledge of contents, no training experience or over 20 years' experience. Faculty includes specialists knowledgeable in the content of the targeted course and trainers experienced in training adults.

Teachback training occurs in classroom settings where the participants practice teaching the course to each other before undergoing the actual training. Teachback methodology includes three steps: 1) faculty trainers teach training basics and demonstrate a set of training skills (i.e., how to facilitate a lecture, exercise, group discussion, and role play); 2) participants use the training skills to 'teach back' a portion of the targeted course (e.g., multidrug-resistant TB) to the other participants; and 3) each participant receives feedback on his/her training performance and knowledge of existing course content from faculty trainers and another participant (Table 1).

Because each course is different, Teachback materials are designed to be flexible, easy to use, and in accessible software. Materials include a video, PowerPoint slides, facilitator guides, and other training documents. These have been updated periodically based on course evaluation results and best training practices.

COURSE DESIGN

A minimum of two trainers are required to conduct a Teachback training-of-trainers course. One trainer serves as a content specialist and the other as a training specialist. The number of participants varies depending on the amount of content in the targeted course and the number of trainers available. For the training to be effective, each participant needs time to gain experience facilitating an interactive lecture and

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KEY WORDS

training skills; adult learning; capacity building; feedback

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TABLE 1 Example of a Teachback Methodology training-of-trainers course*

Day 1	Day 2	Day 3	Day 4	Day 5
Course introduction Faculty trainers <ul style="list-style-type: none"> • Teach training basics (know your audience, use adult learning principles, be prepared, manage the training, communicate effectively, and engage the audience) • Teach facilitation skills (interactive lecture, an exercise, group discussion, and role play) • Demonstrate facilitation skills using targeted course curriculum • Demonstrate feedback for each of the skills Faculty trainers provide Teachback assignments to participants and help participants prepare for their teachbacks	Faculty help participants prepare for their teachbacks Participants conduct teachbacks using a portion of the targeted course content and receive feedback on training skills and accuracy of course content	Participants continue teachbacks and receive feedback	Participants continue teachbacks and receive feedback	Participants continue teachbacks and receive feedback Participants create action plans (optional) Course closing

*1 and a half days are added to a 3-day targeted course to create the training-of-trainers course. The range of time for teachbacks varies, depending on the course and topics, from 15 min to 2 h per person. The average time for feedback is 5–7 min per person, and includes self-assessment and feedback from a faculty trainer and one participant.

a training activity (i.e., group discussion or exercise). For example, if the targeted course is a 3-day course there would only be enough content and activities for approximately 8–10 participants to gain training experience.

The time required for each course also varies. Table 1 illustrates how time is added to an existing course to create a training-of-trainers course. This provides the time needed to teach training skills and for participants to do their teachbacks and receive feedback.

RESULTS

Since 2003, CDC staff and partners have conducted 42 Teachback training-of-trainers courses—57% TB-related—in 18 countries (Table 2), with 901 participants from 62 countries trained. A total of 84 trainers have helped conduct Teachback training-of-trainers courses, some of whom have subsequently taught others how to conduct Teachback training-of-trainers courses (e.g., in CDC, Rus-

sia, and Latvia). The curriculum was created in English and has been translated into five languages: Spanish, Russian, Latvian, Vietnamese, and Georgian.

Results from objective and subjective end-of-course evaluations have consistently indicated that the top three skills gained from the course are the abilities to 1) facilitate training, 2) use adult learning principles, and 3) give and receive feedback. Participants have also reported that they gained confidence in their ability to teach the content of the targeted course to others. During follow-up training, faculty trainers use a checklist while observing former participants teaching. Improvements have been noted in training skills, confidence in managing the training, and accuracy in teaching course content.

DISCUSSION

Many people become trainers because they have expertise in a particular subject area, but they may not have any formal educa-

TABLE 2 Examples of Teachback training-of-trainers courses

Courses	Location of training
WHO programmatic management of drug-resistant TB	Philippines and India
Managing TB at the <i>raion</i> level	Russia
Multidrug-resistant TB	Latvia
TB-HIV surveillance	Botswana and South Africa
TB-HIV	Kenya
TB-HIV collaborative activities	Uganda
TB operational research	Argentina
Train up to Teachback	Jamaica, Antigua, Thailand, Viet Nam, and South Africa
Report of verified case of TB	United States
TB 101	United States
TB contact investigation	United States
Epi Info	Viet Nam

WHO = World Health Organization; TB = tuberculosis; HIV = human immunodeficiency virus.

tion in training. The strength of the Teachback Methodology is that it empowers participants. They can integrate training theory with the teaching of course content, practice training in a safe environment, and receive expert and objective feedback on their training skills. Skills learnt in this course can easily be transferred to teaching other courses. Creating more trainers means that more training can occur simultaneously and ultimately save time and money.

Teachback enables trainers to directly observe the participants' performance and immediately see how the participants apply the knowledge and skills they have learnt. In certain non-Teachback training-of-trainers courses, the trainers teach the course content to participants, after which the participants return to their jurisdictions to teach the course to others. In these situations, faculty trainers usually do not observe the participants teaching, and unlike the Teachback training-of-trainers courses, faculty trainers do not have the opportunity to determine if the content is taught accurately, or if the participants need to develop their training skills further.

CONCLUSION

The CDC-TMTC can be integrated into existing training courses for health care professionals. This enables TB and HIV health programs to enhance their training capacity to build a robust and competent workforce. This methodology can also be applied to other health programs, such as maternal child health, to ensure that health care professionals have the necessary knowledge and skills needed to perform their jobs competently.

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- 2 Pask G. Conversation theory, applications in education and epistemology. Amsterdam, The Netherlands: Elsevier, 1976: 402 pp.
- 3 Magee E, Tryon C, Forbes A, Heath B, Manangan L. The national tuberculosis surveillance system training program to ensure accuracy of tuberculosis data. *J Public Health Manag Pract* 2011; 17: 427–430.
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APPENDIX Teachback methodology: training-of-trainers course outline

Day 1		Day 3	
8:00	Course welcome	8:00	Module 3: Team conducts Teachback
8:20	Course overview, agenda, and materials	10:00	Break
8:45	Introductions	10:15	Module 3: Team conducts Teachback (continued)
9:15	Ground rules, parking lot, and housekeeping	12:00	Lunch
9:25	Teachback methodology	1:00	Feedback to Module 3 Team
9:50	Break	1:30	Module 4: Team conducts Teachback
10:05	Training basics	3:00	Break
12:00	Lunch	3:15	Module 4: Team conducts Teachback (cont.)
1:00	Training basics (continued)	4:00	Feedback to Module 4 Team
1:35	How to facilitate an interactive lecture	4:20–5:00	Module 5: Team conducts Teachback
1:55	Demonstrate an interactive lecture (use content from the existing course)		
2:15	Demonstrate feedback on the interactive lecture		
2:20	How to facilitate exercises and group discussions		
2:45	Demonstrate an exercise or group discussion (use an exercise or group discussion from the existing course)		
3:05	Demonstrate feedback on the group discussion		
3:20	Break		
3:45	How to facilitate a role play (Note: Include this section only if the existing course includes a role play)		
4:00	Demonstrate feedback on the role play		
4:05	Teachback assignments (for topic and team)		
4:25–5:00	Teams meet to prepare for Teachback		
Day 2		Day 4	
8:00	Review of Day 1	8:00	Module 5: Team conducts Teachback (continued)
8:15	Teams meet to prepare for Teachbacks	10:00	Break
10:00	Break	10:15	Feedback to Module 5 Team
10:15	Teams meet to prepare for Teachbacks	10:40	Create action plans for future trainings (work in groups)
12:00	Lunch	12:00	Lunch
1:00	Module 1 Team conducts Teachback	1:00	Participants present action plans
2:30	Feedback to Module 1 Team	2:15	End-of-course evaluation
2:45	Break	2:45–3:00	Course closing/certificates
3:00	Module 2 Team conducts Teachback		
4:40–5:00	Feedback to Module 2 Team		

Un modèle systématique de cours de formation de formateurs a été créé afin de répondre à la demande mondiale d'assistance à l'enseignement en matière de tuberculose (TB) et du virus de l'immunodéficience humaine (VIH). Le cours de Teachback Methodology a été créé en s'appuyant sur les techniques d'apprentissage de l'adulte et mis en œuvre en collaboration avec des partenaires afin de créer des cours de formation de formateurs. Un total

de 42 cours a été réalisé dans 18 pays, ce qui a permis à 901 participants d'améliorer leurs capacités de formateurs. Lors des cours de formation de formateurs, les participants simulent la tenue d'un cours. Les formateurs observent leurs performances et évaluent leurs capacités de formation et l'exactitude du contenu délivré. Cette méthode peut être intégrée aux cours relatifs à la TB et au VIH afin d'améliorer les capacités de formation et contribuer à créer une main d'œuvre compétente.

Con el propósito de satisfacer la demanda mundial de ayuda a la capacitación en materia de tuberculosis (TB) e infección por el virus de la inmunodeficiencia humana (VIH), se estableció un método sistemático de realización de los cursos de adiestramiento de los futuros capacitadores. El plan de estudios con el método demostrativo o de repetición (Teachback) se formuló con base en los principios de aprendizaje de los adultos y se puso en práctica en colaboración con otros asociados a fin de crear los cursos de formación de capacitadores.

Se llevaron a cabo 42 cursos en 18 países, en los cuales participaron 901 personas con el fin de fortalecer sus aptitudes como capacitadores. Durante las formaciones los participantes practicaron la dictada de un curso. Los entrenadores observaban el desempeño de los participantes y aportaban comentarios sobre su aptitud docente y sobre la precisión del contenido del curso. El método se puede integrar a los cursos sobre TB e infección por el VIH, a fin de reforzar la capacidad pedagógica y contribuir a fortalecer la competencia de los profesionales.