

Structured Pedagogy

GUIDE 5

Teacher Professional Development: Teacher Training



INTRODUCTION

Once the teacher's guide and student books have been developed, the next step is to prepare teachers to use these new materials in their classrooms. In-service training is the best way to do this, and then should be followed by ongoing teacher support. This guide will focus on teacher training events where teachers are brought together to learn the new instructional approach. [Guide 6](#) talks about the support teachers should receive after the training event.

Teacher training programs should recognize that adults are motivated and learn differently than children. Adults are much more self-directed and want to learn information that is relevant to their needs.¹ Training should take into account what teachers already know and what they need to learn to use the new materials. Also consider the concept of cognitive load or the number of things a brain can attend to at one time. This concept has implications for the amount of content and the importance of teachers leaving the training with familiarity, and maybe even some automaticity, in new teaching activities.²

In 2017–2018 RTI undertook cross-national research on RTI teacher training programs to better understand how in-service training is being implemented as well as how it can be improved.³ This guide uses the findings of that study to explain the best practices of training and training design.

ADULT LEARNING PRINCIPLES

- 1 Consider what teachers already know
- 2 Give opportunities to have a say in the content
- 3 Content should be highly relevant
- 4 Include practical methods of learning
- 5 Be immediately applicable

Malcolm S. Knowles,
*Andragogy in Action: Applying
Modern Principles of Adult
Learning* (San Francisco:
Jossey-Bass, 1984)

TRAINING CONTENT

One of the first questions to consider when developing a training course is what content to include. Choosing the right content and organizing it in a digestible way, in alignment with adult learning principles, is key to the success of the training. The content should focus on what teachers need to know to implement the new instructional approach, including specific activities teachers will need to teach when they return to the classroom. This practice ensures teachers are going to feel confident to try the new approach in class.

Relevance

The content of each training should be

immediately relevant to teachers. Focus on the practical information a teacher needs to be able to teach a new instructional approach, including only activities that will be taught in the upcoming term or semester, not over the whole ensuing year, if possible. Center the training on the teacher's guides, student textbooks, and activities that the teachers will be using in their classes.

Less is more

It is tempting to include everything we want the teachers to know in one training. But, to avoid overload and maintain relevance, reduce discussion of theory. Don't try to bring every element of instruction into one training. Content

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should be broken down into small digestible pieces. Focus on new activities one at a time, and incorporate time to practice individual activities, before trying to go through a whole lesson of activities at one time.

Shorter more frequent trainings

Long trainings (7–10 days or more) will likely result in teachers remembering only a small portion of what was taught. **Hold shorter, 3–5 day trainings more frequently.** For example,

consider having one slightly longer training (5 days) to start the school year and two shorter trainings (3 days) during school breaks to refresh and add new skills. Doing this also gives the program a chance to adapt subsequent trainings to teachers' needs. It helps ensure that trainings are based on what teachers already know, that they can have a say in the content and includes content they need to immediately apply, in keeping with adult learning principles.

TRAINING MANUAL

When undertaking large-scale teacher trainings with possibly tens of thousands of teachers, it is easy for key messages to get lost. A good training manual can help keep the message consistent throughout each level of training. Here are some characteristics of a high-quality teacher manual.

Short and concise

Keep the manual as brief as possible and only write out definitions or key ideas. Use bullets and textboxes to save space, but highlight key ideas.

Use examples from the Teacher's Guide

Have teachers use the actual program teacher's guide and lesson plans in the training. Take time to show teachers around the teacher's guide; explain icons and the general format. Then, for every opportunity to model an activity and have teachers practice an activity, use a specific example from the guide. Teachers will grow familiar with the teacher's guide or other documents while they are learning the new instructional practices.

Include sufficient time for each activity

Make sure trainers know exactly how long each

activity is supposed to take. An agenda at the beginning of the training manual is helpful; even more helpful is giving the time allotted in each section or activity heading in the training manual.

Plan for buffer time

Even the best planned training with the most experienced trainers can end up off schedule. Teachers will ask questions, visiting government officials may talk longer than expected, or some technology will fail. Plan for extra time by adding more time than is really needed or by having activities like energizers that can be skipped if needed. Indicate which activities are optional in case they need to be skipped.

Include ministry counterparts as much as possible

The development of the training manual is a good opportunity to include appropriate ministry counterparts. Getting the ministry involved at this stage will help with government leadership, understanding of the instructional approach, and sustainability. Participating ministry counterparts can also supervise the training and help communicate the importance of the training, which may lead to more motivation among teachers.

GOOD TRAINING MANUALS CAN HELP KEEP THE MESSAGE CONSISTENT

TRAINING METHODS

Training methods are the instructional activities used to present the content in a training. Typically, there are four main methods used in training—lecture, discussion, modeling, and practice, which will be explained in this section. How the content is presented is as important as the content itself. Adult learning should include practical methods of learning; adults learn best

by doing. Consider how to get teachers to “do” the instructional approach while in training so they can confidently try new skills in the classroom.

Practice

This is the most essential methodology to teach new instructional skills for two main reasons. First,

HOW THE CONTENT IS PRESENTED IS AS IMPORTANT AS THE CONTENT ITSELF

having a concrete idea of what activities look and feel like before they attempt them in the classroom will give teachers confidence in their ability to do this successfully. Second, teachers have to attend to multiple issues while also teaching lessons, and the more familiar they are with the steps of the activity they are teaching the better their brains can attend to their students' learning needs during the activity.⁴ **More training time should be dedicated to practice than to anything else. This practice should take place in pairs or small groups rather than in large groups.** The importance of small group or pair practice cannot be overstated: Every teacher should have a chance to practice every activity. The RTI study found that on average only 60% of teachers were able to practice an activity in training because most of the practice was done in large groups, allowing only one or two teachers to practice in the allotted time. Thus making time to practice each new activity and making the practice in pairs rather than groups will ensure every teacher has time to sufficiently practice.

Modeling

Key to understanding a new activity is seeing what it is supposed to look like. Having a high-quality

model of each activity will help give teachers an idea of what they are aiming to do in their teaching. A high-quality model may be better done by a very good teacher than by a trainer.

Discussion

The best use of discussion is answering questions teachers have and allowing teachers to discuss their own practice, both in the classroom and during training, to help each other solve challenges. Discussion can also serve as a chance for self reflection or self evaluation. It is easy for discussion to take more time than planned, so balancing discussion and time is key.

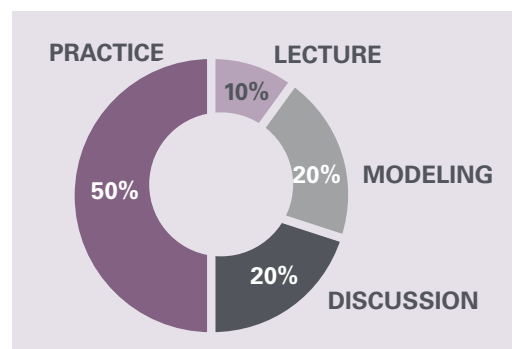
Lecture

Lectures may be necessary to explain concepts and definitions of terms; however, they are also the least effective for helping teachers prepare to teach new skills and activities. Keep lecture time to a minimum.

Given these four main methodological options, how do you decide how often to use each? RTI's internal study found that teachers prefer practice and modeling, and projects with successful student outcomes tend to use more practice in their trainings.

Figure 1 shows one way to consider how to divide the time between the four methods, though the best option will depend heavily on the content.

FIGURE 1. Suggested training time allotments



"I FEEL CONFIDENT. MODELING AND DO IT PRACTICALLY AND YOU DON'T FEEL SHY YOU CAN TEACH LIKE ANY OTHER TEACHER. MADE ME FEEL CONFIDENT." TUSOME TEACHER



TECHNOLOGY AND TRAINING METHODS

There are many ways to consider including technology as part of a training, such as PowerPoint to present a concept, or video to help model an activity. **However, before designing any technology-dependent activities, consider carefully the context and the participants' technology literacy.** Will the venue have access to electricity? Wifi? How big is the space? Are ALL participants used to using smart phones? Tablets? Depending on the answers to these questions, some or no technology may make sense. Whatever decisions are made should take into account that technology should be a tool for learning, not the main focus.



TRAINING PLANNING AND LOGISTICS

Planning for a teacher training, especially a large-scale, multi-level training, must **START EARLY**. There are several key decisions and moving parts to juggle, so the more time you have to prepare, the more likely you will be able to adjust when a major issue comes up. **Effective training programs work within government systems to align the training timing to the overall master calendar of teacher training to reduce overlap. Key decisions include:**

Cascade or no cascade

This is an important first decision to make. In a cascade model of training, master trainers train teacher trainers, who then train teachers. Cascade levels can vary depending on the number of teachers and time available. A no cascade model would mean that one group of trainers would train teachers directly which may take much longer depending on the number of teachers to be trained and skill level of trainers. Cascades can train a lot of

people relatively quickly, but the more trainers and levels of training there are, the more the message can get diluted. In some contexts, a cascade may be the only option. Reduce the number of levels and ensure that all the levels get the same training. The simplest way to decrease the number of levels is to spread out the trainings over a longer period of time so that more experienced and skilled trainers provide the first levels of the cascade over a wide geographic area. Do your best not to cut the training short for the higher levels of trainers. Also plan for 30 teachers maximum per 2 trainers, if possible. The fewer teachers the better, but this depends on the teacher population and ratio to pedagogical support officers.

Who comes to the training

Any teacher who is going to be implementing the instructional approach should attend the training.

Sometimes schools or programs decide to train only one teacher per school, hoping that teacher will train other teachers. There are two issues with this. First, the teacher will not be an expert on the content or training methods after one training. Second, there is no way to ensure that teacher trains others well—or at all. Head teachers or school directors also should attend at least part of the training. The more they know about the instructional approach, the more they can help support it. An added bonus is that having more than one teacher attend training means teachers can support each other after training while learning to apply the new practices in the classroom.

Mobilization plan for trainers

When planning trainings, especially for large scale, it is essential to have a clearly laid out plan for each trainer, including location, dates, and level of training. Large-scale training rollout can involve hundreds of people traveling to venues throughout the country. Keeping track of who goes where on what day requires a thoughtful system and tools, such as Excel tables.

Quality assurance

Ensure that the message stays the same throughout all levels of the training. **Every training must have a support person who can provide quality assurance.** This should be someone who has experience training, generally an experienced program or ministry staff member who can support other ministry staff while training teachers. This person should be able to recognize any issue with the quality of training and

even jump in to help train when needed. Develop a simple checklist or tool that the quality assurance person can use to gather data on how the training is going. This will help relay any challenges and fix them immediately.

Residential or nonresidential training

Choosing between having teachers stay onsite or traveling back and forth to the training site should be carefully thought out. One study by the Literacy Achievement and Retention Activity in Uganda looked at the advantages and disadvantages of both options.⁵ The study compared costs as well as hours of training and amount of learning. It found that the residential training was much more expensive and, in the end, actually did not increase teacher knowledge. The additional cost for the residential training did not turn out to be worth its marginal impact.

Training of trainers

Trainers most affect a training's success. They should experience the training as they will give it, so they know it. Supplemental content focusing on how to give constructive feedback and adult learning and facilitation will be important. Chances are trainers will not be experienced primary teachers or have expertise in foundational literacy/numeracy, so the training they receive will be essential to the success of the teacher training. Training is exhausting; as much as possible, plan for two trainers per training. Use ministry trainers or other appropriate staff as trainers. They may not be experts in the content, but with practice-based training and quality assurance they will be effective. Teacher coaches could be trainers, also. See [Guide 6](#) on ongoing support for more on teacher coaching. This will help them develop relationships with teachers and deeply understand the instruction. Or, consider using very skilled teachers as models and trainers. Teachers make excellent models, and they understand the classroom best.

**CONSIDER USING
VERY SKILLED
TEACHERS AS
MODELS AND
TRAINERS**

While this guide has focused on how to prepare and deliver a high-quality in-service training within a structured pedagogy program, it will be important to ensure that sustainability is woven throughout. Collaborating with ministry officials and staff throughout, as discussed, will help. In addition, effort should be made to ensure that the training program can be incorporated into the government system, including providing credit to teachers and identifying opportunities to integrate the approaches into teacher training colleges

For more information on Data, Accountability and Systems, please visit:

GUIDANCE NOTES

In 2017–2018 RTI undertook cross-national research on RTI teacher training programs and summarized the findings with the following guidance:

Essential Guidance for Training:

1. Reduce the amount of content in the training.
2. Increase time allocated to modelling and practice.
3. Modelling of skills should be done by competent facilitators.
4. Format the training manual to maximize ease of use.
5. Teach time management techniques to facilitators and program staff.
6. Ensure facilitators understand the program theory of change.
7. Training manuals, teachers' guides and student textbooks should be key resources.

Suggested Guidance for Training:

8. Training manuals should provide specific, simple and clear guidance.
9. Include buffer time when allocating time in the training manual.
10. Follow the training manual at Master Training and Training of Trainer levels.
11. Establish criteria for the selection of facilitators.
12. Emphasize the 5 components of reading and writing

CONCLUSION

These best practices design training to be as successful as possible. Keeping in mind the context and principles of adult learning throughout the process will help ensure teachers are ready to use the new materials in their classroom once training ends. It is important to remember, however, that this takes time: teachers will not be able to implement perfect lessons in the first week or even term. Learning and perfecting new instructional practices require consistent feedback. These best practices, summarized in the guidance notes above will go a long way toward helping teachers get as much as possible from the training.

About the symbols in this guide:



Indicates “Red Alert”: Something to be aware of and alert to, because it is a common problem



Indicates “Non-negotiable”: a must-have

RESOURCES

CIES 2019 presentation Training teachers or robots: Unexpected findings of a 7-country teacher professional development study: <https://shared.rti.org/content/training-teachers-or-robots-unexpected-findings-7-country-teacher-professional-development>

Darling-Hammond and Richardson on “Research Review/Teacher Learning: What Matters?": <http://www.ascd.org/publications/educational-leadership/feb09/vol66/num05/Teacher-Learning@-What-Matters%C2%A2.aspx>

Knowles on *Andragogy in Action: Applying Modern Principles of Adult Learning*.

CIES 2019 presentation Small non-residential trainings vs. large residential training: <https://shared.rti.org/author/tiguryera-s>

Webinar on in-service training and ongoing teacher support: <https://www.globalreadingnetwork.net/events/continuous-professional-development-early-grade-reading-programs>

Complete Series of Structured Pedagogy How-To Guides: <https://scienceofteaching.site/how-to-guides/>

REFERENCES

- 1 Malcolm S. Knowles, *Andragogy in Action: Applying Modern Principles of Adult Learning* (San Francisco: Jossey-Bass, 1984)
- 2 David F. Feldon, “Cognitive Load and Classroom Teaching: The Double-Edged Sword of Automaticity,” *Educational Psychologist* 42, no. 3 (December 5, 2007): 123–137, DOI: 10.1080/00461520701416173
- 3 Benjamin Piper, Jessica Mejía, Jennifer Spratt, Yasmin Sitabkhan, Kellie Betts, Patience Sowa, and Wendi Ralaingita, *Teacher Professional Development in Low- and Middle-Income Countries: Results of the 17-Country Teacher Study Examining Survey Findings, Training Manual Analysis, and Observations of Teacher Training* (Research Triangle Park, NC: RTI Press, forthcoming).
- 4 Feldon, “Cognitive Load,” 2007.
- 5 Small non-residential trainings vs. large residential training: Findings from action research in Uganda [CIES 2019 Presentation] <https://shared.rti.org/content/small-non-residential-trainings-vs-large-residential-training-findings-action-research>



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