



SMED - TRAIN THE TRAINER

TABLE OF CONTENTS

Welcome to “SMED: Train the Trainer”	3
Section 1: SMED.....	3
Section 2: General Notes about Training.....	4
Know Your Students	4
Adapt Your Methods to Your Students.....	4
Relate the Material to Your Students and Their Situation(s).....	4
Section 3: The SMED Presentation and Workshops	6
SMED, the Ongoing Project	6
Well Begun is Half Done	6
The PowerPoint Slide Presentation	6

SMED Train the Trainer

Slide **17-18**: The first official “think break”. Ensure everyone participates; perhaps by asking everyone to write down three ideas before opening the floor for discussion. After the discussion you may show the second page with examples to compare if you had the same points. Did the group come up with different or better ideas? Did they miss any that they would find useful?

“Duplicated equipment” means that each wheel-change specialist has his own tools; they don’t have just one wrench that gets passed around the car. “Parallel work” means that all four wheels are replaced at the same time; they don’t hire just one guy to change all four.

SLIDES 19-20

Slide **19-20**: Although these slides have the same text, the important difference is in the diagram. “Before SMED” has a lot of work **in series**; “after SMED” the external work is done **in parallel** with production, thus reducing down time.

See if anyone notices that **pre**-changeover and **post**-changeover work have both been moved to “external”. Later, we will learn that almost all post-changeover external work was “waste”.

This slide is important for workshop #1. Emphasize that set-up time is the lost production time: from finishing the last item of type ‘A’ until the first acceptable product of type ‘B’ is produced with the machine running at its proper capacity. So include “test runs” and adjustments in “set-up time” . .

SLIDE 21

Slide **21**: Remind the group that this training program deals with **one setup operation at one** machine. This machine must have at least one other setup operation. Probably one team will analyze and improve all the setup operations for one machine, because they have expertise on that machine.

However, the overall project will repeat the process at all the other machines in the shop. The SMED team will change some members, since it needs to have the experts on those machines.

If there are different functional areas in the factory, or multiple factories in the corporation, it is likely that many SMED projects will be running simultaneously. The teams may have completely different members. How will the corporation share the expertise gained in different factories?

SLIDE 22

Slide **22**: The overview of the five SMED phases. Again, it is reassuring to know there are a finite number of steps. Don’t let people worry if they don’t understand a later step. We are mainly concerned with getting started at step 1.

Discuss the scope of this SMED project. Is it one set-up operation, as in your training program? In the real world, will the scope include one set-up, one machine, one factory, or the whole company?

SMED Train the Trainer

In the real world, will one person be involved with all the machines in a factory, or with all the factories in the company? That question may have been determined when the company decided to implement SMED, or it might be worth just a few minutes of discussion at the training session.

SLIDES 23-26

Slide **23**: The cross-functional team must know or be responsible for the machine and the setup. The operators, for example, are the people who work with that machine. The manager is responsible for that machine. Again, this team deals with **one setup operation** at **one** machine.

What qualities should be considered for the team leader? Status or role in the company? Expertise with the machine? Personality traits?

Slide **24**: Encourage the group to think of a useful but not overwhelming project. The sweet spot is probably a setup operation that takes a “somewhat above average” amount of time but is performed fairly often. The very longest setup operations might be more complex than the workshop participants can manage in the time allowed.

Slide **25**: You should display a visual record of set-up times and goals in the production area so that everybody can see and follow the results. In this same area you should later post your actions plans and other related documents.

Slide **26**: Workshop #1. The team activities are listed.

There is a definite research step: how long **does** set-up take? At this point, we only need the overall time, not broken down activity-by-activity. Remind the team of slide #19: the definition of set-up time.

*Do **not** go further in the presentation until this workshop is finalized as the team will not have focus enough if there are questions about the project scope, commitments and available resources.*

SLIDES 27-40

Slide **27**: Simply introduces step #2.

Slides **28-30**: A video recording of the set-up process is required because it is too difficult to write down what everyone does simultaneously. The PowerPoint presentation assumes that only one person will video-record the process. It might be smart to have multiple videographers if...

- The set-up currently requires several people who move around during the set-up
- Those people are working on different sides of the machine, so one camera cannot pick up all the actions
- A second person is doing “external” work well away from the camera; for example, assembling a jig while other “internal” work is done on the machine

Remind the team that we need to know why someone has to wait, as well as to see that he is waiting. Two (or more) videographers can be very useful.

In fact, it may be useful to have the videographer(s) train by recording some day-to-day production at the machine. The record of the set-up is so important that it is worthwhile to have the best quality possible.