

What Forecasters Need to Know about Training for Trainers

Izolda Marcinonienė, Chief Specialist Meteorological Forecasting Division
Lithuanian Hydrometeorological Service under the Ministry of Environment

Introduction Challenge or Necessity?

Life brings numerous new challenges, and experience shows that each of us goes before an audience and becomes a teacher – even if only briefly - on increasingly frequent occasions. I first heard of special training for meteorology trainers a few years ago, but this tended to focus on what should be taught, rather than how. In 2014, the WMO plans to organize training for trainers in the European region. In this article it would be useful to introduce the training objectives and the benefits for its participants. My own case has shown that meteorological professionals are really not aware of the nature of such training. We would like to invite other colleagues to dare to participate in them, because, despite the high stress and strain of training, the benefits are undeniable and obvious.

The WMO Education and Training Office – the Initiator of this Expansion in Learning

In 2010, I was lucky to participate in the WMO Education and Training Programme (ETRP) seminar 'Train the Trainers'. During two weeks in May, 20 meteorologists from meteorological services in 14 European countries and several universities gathered in the beautiful medieval town of Sibiu in Romania. This workshop was aimed at meteorologists of the WMO Region VI who were one way or another related to the training of professionals and students (Fig. 1).

My colleague Metaxa Konstantara from the Hellenic National Meteorological Service and I then presented the results of this workshop to the participants of the EUMETCAL VI Workshop held in Geneva, recommending that similar courses should be conducted in the EUMETCAL environment. We were

glad that the trainer's competence matters were the main focus at the EUMETCAL VII Workshop held in the beginning of March 2012 at the Met Office headquarters in Exeter, United Kingdom. Specialist knowledge was imparted by experts in their field from WMO-ETRP, EUMETSAT, EUMETCAL and COMET, namely: Luciana Veeck, Jeffrey Wilson, Mark Higgins, Tero Siili, Ian Bell, Patrick Parrish, Roger Deslandes and others. The experts lectured, conducted workshops and talked with more than 50 participants from 23 countries, mostly from Europe.

I made a statement about the undeniable benefits of the WMO-ETRP workshops at the CALMET IX conference in Pretoria in 2011, in view of the upcoming training event for the African region. From feedback I can say that the conference helped doubting attendees decide to participate.

What is a Good Lecture?

Each meteorological service attaches increasing importance to the raising of its specialists' qualifications, because meteorologists face new challenges due to rapid technological development and the need to implement improved methods and applications. Unfortunately, financial resources are limited, and increasing use is made of distance or blended learning methods. They are cheaper, because they eliminate travel and subsistence expenses of the trainees. Participants only need to register, and to have a computer with specifically installed programs, headphones, speakers and microphone. A course presenter prepares a presentation - usually in ppt format - and posts it into a virtual environment. They then connect online to the session and the lecture is ready to begin. But is this really enough? Is it possible to apply the same methods in a remote lecture as to those delivered in the classroom and 'live'? How can we make training not only useful but also interesting, and how should we overcome communication barriers and engage



▲ Figure 1

the audience? How should we choose assessment criteria for the courses and present them in a form of questionnaire, and what is required of a slide presentation? In short, how does one become a competent trainer?

Experience shows that many lecturers are self-taught and that firstly they are experts in their respective fields, usually in meteorology. Unfortunately, to professionally conduct a lecture, in-depth knowledge of the subject and rich experience are not enough. It also requires pedagogical and psychological knowledge. You need to have knowledge of the audience - professionals or students, ethnic composition and cultural background; it also is important that the lecture is conducted in their native language.

Lecturers are often faced with a problem of how to focus students' attention during the lecture (Fig. 2), by the use of elements of performance, presentation design, and so on. Visual and kinaesthetic communication (otherwise called 'body language') is very important during a face-to-face type of lecture. During this type of lecture

it is easier to interest students and engage an audience, to achieve a deeper understanding of the material and make it memorable. 'No emotions, no learning!' might be the credo of such courses. Meanwhile, preparation for lecturing at a distance requires much more effort from the teacher – it is not always possible to show a video or animation online, and one must carefully select the layout and background of the slides and any presentation effects. Even with a camera connected to PC, it is hard to employ 'body language'; so one should focus more on the voice including the intonation and pauses. However, this teaching method has its advantages - a lecture often is recorded, so both students and teachers have an opportunity to review the material carefully, objectively evaluate it, and avoid the discovered mistakes in the future.

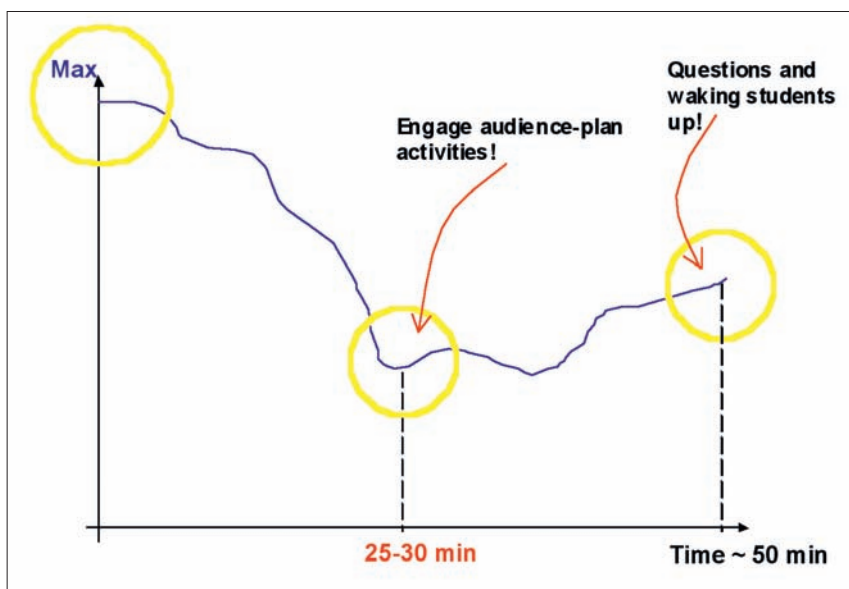
Quite often the success of a lecture is evidenced by abundance of students' questions and their quality. A professionally delivered lecture satisfies not only the students' curiosity, but also encourages them to further deepen their knowledge, and gives a lecturer personal satisfaction with the work and guide-

lines on how to improve the work and update the data (Fig. 3). It means that each presentation is a lesson for the trainer as well.

Conclusion – Never Stop Learning!

Clearly knowing how to create the best content of meteorological training is very important, but this is more related to raising of a specialist (usually a forecaster) qualifications rather than the instructor's teaching skills. This article has another aim - to

show the sources of, and techniques for improving, knowledge transfer techniques to achieve the objective of delivering a 'good' lecture. Relations between meteorologists in different countries are becoming closer and more varied, and the number of training courses and events is rapidly growing. So a logical question arises as to which methods to choose. My advice would be as follows: if you have to impart professional knowledge to colleagues, customers or students, but feel you lack knowledge of how to conduct your lectures, then 'Train the Trainer' workshops are meant specifically for you.



◀ Figure 2
The problem in the middle and the end of lecture

▶ Figure 3
The difference between trainees with different motivation

