

Eumetcal Working Groups and the Road to Blended Learning Courses

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BACKGROUND

Eumetcal is a EUMETNET and EUMETSAT co-funded European training programme in the field of meteorology dedicated to the production and sharing of existing computer assisted learning material. Eumetcal draws together experts from 22 member countries throughout Europe. Cooperation in training matters is due to begin also with ABoM, MSC, WMO and COMET in the near future. The Eumetcal III programme phase expands the scope of training activities beyond meteorology and includes a working group dealing with training in hydrology.

The concept of operations of the Eumetcal programme developed around sharing of training material between members and reducing costs and effort for training through cooperation. Learning modules have been produced in teams across Europe and countries offer their training material to be shared in the digital learning object repository, intraLibrary. Since February 2007 Eumetcal also coordinates blended learning courses for continuous professional development delivered by member NMSs. The course material is drawn from the intraLibrary or other free sources and combined into an openly distributed syllabus. Willing countries can also deliver individual courses based on the Eumetcal material alone or in cooperation.

WORKING GROUPS

The development of blended learning courses within the Eumetcal III programme relies on the functioning of Eumetcal Themed Resource Working Groups. These groups, divided into seven themes, are tasked to assess current availability of training material, identify gaps in training material availability, create a syllabus for the professional development of operational weather or hydrology forecasters, recommend course providers and the propose action for the development of training material in the identified gap areas. The course development process is thus leading from working group assessment to a specific plan on how a course within the theme should be best organised.

The Eumetcal III programme has working groups in radar, hydrology, NWP, aviation, satellite and severe weather meteorology and a separate group dedicated to the technical solutions of blended learning. These groups are lead by leading experts from Eumetcal members' countries and are open for participation also outside the programme.

COURSES

The first results from Eumetcal courses are available from the Aviation Meteorology pilot course with the target audience of experienced forecasters of member NMSs. The course was delivered by Météo-France as a combination of a seven-week distance learning period and a following week of classroom training in Toulouse, France. The course was successful in reaching the goals set out prior to the course and 15 participants successfully finished the first-ever Eumetcal course.

The second Eumetcal course is delivered from 22 October to 14 December 2007. This NWP course is delivered as a joint effort by the Finnish Meteorological Institute, Deutscher Wetterdienst, ECMWF, ZAMG and the Norwegian meteorological agency with visiting lectures from MSC, Canada.

In both cases, a combination of a web conferencing tool for live and virtual learning environment for asynchronous learning is used during the distance learning phase to deliver material and provide a forum for discussion to the students. This will in turn allow the most benefit to be drawn from the classroom session.

WHY BLENDED LEARNING

When compared to a fully classroom-oriented solution, the chosen approach is considered to improve both cost-efficiency and learning results by

- Allowing the student to study whenever and wherever
- Using new and innovative tools to engage the student
- Promoting active participation through weekly live online sessions
- Reducing travel and accommodation expenses by shortening the necessary classroom session
- Preparing the student for the classroom session and introducing the subject matter well in advance

Due to the lack of experience in e-learning in the professional environment, an evaluation and has been commissioned from the delivering institution. One of the key objects of the courses is to assess and to justify the benefits of e-learning techniques as well as to demonstrate their suitability for meteorology.

The Eumetcal courses and working groups as a development team also offer new opportunities to researchers as there are now several dedicated groups with the aim to promote the most recent know-how on meteorological phenomena to the operational forecasters. The road from research to operations involves a vital component of training and the Eumetcal programme is designed to perform this function. It should thus be in the interest of researchers to be actively involved in Eumetcal working group and promoting their results to benefit the wider audience.

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