Training Process. E-SAC Story

The goal of E-SAC courses is to help the learners to prepare better forecasts through the use of satellite information. In the past the course was a lengthy 2 week classroom course. ***We needed to find a more affordable training solution****, that would still be as effective and* ***would not force participants to stay away from their job for two weeks****. We decided to shorten the classroom phase to 1 week and combine it with a five weeks online phase. We completely* ***re-designed the classroom phase*** *by minimising the amount of lectures and instead introducing more hands-on practice,real time weather discussions and simulations.* (Vesa Nietosvaara - instructor)

The longer course period in the ***on-line course*** *as compared to the classroom based 2 wks gave and will always* ***give interested participants ample time to learn*** *much more on their fields of interest. Secondly, the material provided on the web via links offered and will always offer unlimited access to new ideas. However, we can't forget the* ***social disadvantage unavailable in the online****: eg the mid-weekend tours to the countryside by visitors to see the famous Kenyan beauty and varying cultures like the famous Maasais, welcoming landscape eg the Rift Valley and wild animals in their natural habitas. All in all, as far as learning is concerned, I give the online method much more credit. LONG LIVE ONLINE!!!!!* (Ignatius Gitonga - instructor)

Taking into account two factors, such us participants working on shifts and a modest internet speed some may have, we decided for a fully asynchronous approach. Our secondary aim was to ***reuse existing material.*** *In this way we could afford spending more time on* ***create activities and facilitating them.*** *We selected* ***modules*** *about basic remote sensing (3 chapters), RGB (2 chapters) and fire detection as suitable for the topics we wanted to cover in the course.* ***Discussions and assignments*** *added to the core content helped to engage participants, apply theoretical knowledge and gave space for* ***sharing local cases.*** *As for the* ***assessment*** *we decided that the* ***engagement, participation and contribution is important*** *and enough to be accepted for the classroom phase****.*** *However each activity had a* ***feedback component****, so participants could understand where they did good and where the improvement is needed.* (Maja Kuna - ID)

(From the evaluation survey)

The ***discussions were very good****. The discussions brought out to light things I never understood well. This enabled me to go back to the module and now I have the knowledge.*

I would like that the materials especially diagrams to made in ***a way that one can be able to copy and paste it somewhere to refer at a later date****. I was not able to copy these diagrams on MS word document.*

(I enjoyed most) the ***correction made by fellow participants*** *and it gave me more insight on satellite imagery interpretation.*

I dragged due to ***internet problems*** *with our organisation.*

The ***flexibility in terms of time*** *during the online session enabled one to continue with other activities e.g i was able to continue with normal office work together with university exams while undertaking the online course. Online session provided a* ***g foundation for understanding basics of satellite interpretation especially with online input from participants and instructors****, this simplified application of satellite information i.e WV, I.R, VIS Fog RGB among others in forecasting weather events for different areas and purposes during the classroom session.*

(Kizito Amua - participant)

E-SAC website (Moodle)

Video introduction to the course

A video adds a more personal aspect to an online course. It can be played back online at anytime or downloaded for offline viewing.

Challenge: Video formats behave differently depending on the browser.

Solution: We used a video sharing service (Vimeo) that allows easy embedding in any HTML page and reassures the accessibility for different browsers.

What do you want to learn?

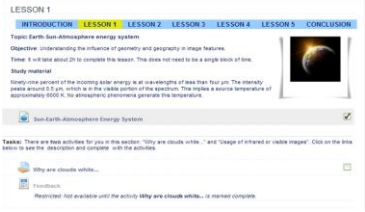
The pre-course survey provided us with more information about participants expectations.

Challenge: How do we implement requests from **26 participants**?

Solution: Open structure of forums allowed us to slightly modify an activity. Additional material could be added at anytime during 5 week.

5 Lessons in 5 weeks,

based on modules created by COMET and EUMeTrain



Basics of Visible and Infrared Remote Sensing (COMET)

Multispectral Satellite Applications: RGB products explained (COMET)

Forest Fires (EUMeTrain)

Activities - forum, assignments, quiz

Activities were created to accompany theoretical content.

Challenges: Some participants may be intimidated to reply to an activity in an open forum.

Solution: We started with 'private' assignments, so participants had a chance to get accustomed with an online format. Then the first 'public' messages they were asked to post, was rather flexible and open. Learners had to write in a forum what important features would they they teach a newcomer to detect a severe thunderstorm. Another activity run in an open forum required learners to post an interesting case in natural colour or dust RGB. Quiz in Lesson 5 was the only 'right or wrong' exercise. Multiple attempts were allowed.

Automatic, peer and facilitators feedback

We used 3 levels of feedback.

Automatic - a model answer available immediately once participants answer has been submitted.

Facilitators' - a personalized per learner feedback for each assignments.

Peer - to complete an activity learners were asked not only to post a case to a forum, but also comment on one from the peers.

Completion tracking for learners, instructors

Participation was important for the course. The reporting functionality in Moodle helped learners to see what they had completed and where they contributed and instructors could easier monitor the progress.

Lessons learned

Discussion forums had a great value for learning.

Participants reported that the time of 10 hours we estimated was not realistic. It took at least 20.

To reduce the amount of content we decided to remove the component about Forest Fire.

Internet connection can still be an issue. The material has to be available for download, so participants can play it locally. The interactions will take place online.