

## **Local Teachers Talking, About ICT and With ICT, in Rural Africa**

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### **INTRODUCTION**

#### **Teachers Talking – an ICT in-service training programme for teachers in rural Africa**

This paper describes the Teachers Talking (TT) programme which is based in rural Nigeria, rural Kenya and on the Internet. TT uses a variety of ICT applications both in its development and in its delivery. However, it is based firmly in rural realities, recognising present constraints and working within them.

The PCF5 presentation will enable delegates to learn more about TT and to experience some typical TT activities.

TT is an in-service training (INSET) programme developed through work with teachers at Fantsuam Foundation in Nigeria. It has also been presented in Kenya, through David Mutua, thanks to support from Commonwealth of Learning (COL). Thanks are also due to:

- Everyone who has helped with preparation and presentation of TT programmes on the ground
- 'A Ray of Hope' and British Airways for help with travel
- Tim Neumann of London University for arranging an audiographic conference with Fantsuam Foundation
- The many friends and collaborators who support participants online and through yahoo groups
- The participants themselves who have helped to shape the programme.

TT is relevant where teachers need to learn and teach about ICT, but their schools are poorly resourced and unlikely to have computers for some time to come.

#### **Relevance for community education and development**

TT has relevance for community education and development as well as INSET. It is said in Nigeria that if you educate a teacher then you educate a community. Within their communities teachers serve on community committees, are sources of information, and are actual or potential change agents. Often their first language is the local language and their salaries are helping to support large extended families in the local community. They know the realities of people's daily lives, so are aware of needs. They are a bridge between the community and outside sources of information.

Rural teachers who understand and appreciate the potential of ODL, ICT and Technology-mediated open and distance education (Tech-MODE) are uniquely well placed to serve the future education/development needs of their communities. There are benefits in introducing Tech-MODE training to teachers, before using it with other members of the community. Teachers are increasingly expected to be ICT literate. This means that they are motivated to become familiar with aspects of ICT for its own sake, so they can get comfortable with the technology, learning about it before they try to learn with it.

In TT we do not only look at ICT as a subject of study: we also look at its role in education; consider various teaching strategies other than rote learning; and introduce ideas about Open and Distance Learning. Rural teachers who are Tech-MODE-aware could encourage the uptake of new education and training practices in their communities. They could also inform and influence policy makers who are willing to listen. One of the objectives of TT is to enable participants to enter into informed debate about the future of ICT in education – hence the name Teachers Talking.

#### **A practitioner's viewpoint**

The author of this paper is the TT programme designer and developer, working with course participants face-

to-face (F2F) during field-trips/working-holidays in Africa, and doing online work and course development back home in the UK. There are no references to published research, because the paper is written from the viewpoint of a reflective practitioner, without a research background. PCF5, jointly hosted by COL and London University, is a welcome opportunity to build stronger links between practitioners and academics.

## **THE TEACHERS TALKING PROGRAMME**

### **An Internet based initiative**

The TT programme could not have come into being without the Internet. TT has been built on various existing human relationships and networks: some F2F, some on the Internet, and some a mixture of both. Without the Internet the people involved in planning and delivering TT could never have worked together.

Teachers Talking, like many Internet based projects, relies largely on voluntary effort and the free sharing of knowledge and ideas. In this it shares some of the characteristics of the Open Source movement. Because it is largely voluntary and unfunded, TT in Nigeria does not have to achieve previously agreed objectives, It is therefore able to develop in an organic way, in response to local needs and constraints, influenced by changing circumstances. It is developing through an ongoing process of trial and improvement.

In some ways TT is best understood as 'an informal research and development project on 21<sup>st</sup> century educational systems and ICT in rural Africa', rather than 'an in-service training course to introduce rural teachers to ICT'. Both descriptions are equally valid.

There is not sufficient space to explain our Internet use in detail (for course development and/or TT-Online) but it includes:

- Email
- Groups, including yahoo groups
- Instant messaging and conferencing
- Skype
- Wikis
- Google searches and Wikipedia
- Various Google applications for collaborative work and e-publishing
- Collaborative tools to work with schools in Northern Ireland
- I-Linc
- Moodle
- Elluminate for webinars and V-rooms
- Minciu Sodas worknets chatroom

### **High-tech and low-tech approaches**

TT is delivered with a mixture of high-tech and low-tech approaches. Although the Internet is an integral part of course development and delivery some of the course work is very low-tech. This is because the participants are typically teaching in schools with no electricity, and few books or other resources. They have to pass on what they know about ICT using only blackboard and chalk, pencils and paper, and whatever notes they take with them from their training. TT gives them the experience of using ICT during their own training, but for lessons in their poorly resourced classrooms other practical ideas are demonstrated.

### **The elements of TT**

There are three main elements of TT, with some areas of overlap:

- The No-Computer Computer Course (NC3)
- Hands-On Computers
- TT-Online

NC3 introduces ways of teaching about ICT which do not rely on having computers in schools and do not involve rote learning.

Hands-On Computers gives participants practical experience of using computers, on-line and off-line. It is only a taster, just enough for them to go back into school confidently knowing they could use computers as well as anyone else, given the opportunity for more training and practice.

TT-Online gives participants a flavour of using the Internet. They meet resources like Wikipedia and search

engines briefly, so they can tell their pupils how the Internet can provide information. However the main emphasis is on the TT-Online community and related online groups.

The idea is that if participants are welcomed into an online community, and feel 'at home' there, it opens their minds to a wide world of learning, which they can join. Participants are encouraged to stay in contact with these communities of interest after the initial course is over, for ongoing support, encouragement, informal training and professional development. They can join in whenever an opportunity arises to go online, even after a long break.

## **PRACTICALITIES OF PRESENTING TT**

### **Course presentation – No-Computer Computer Course (NC3)**

NC3 can be presented anywhere that a group of people can meet for a low-tech training session. We have used various places: inside (in borrowed classrooms) and outside (in the shade of an awning or under a mango tree). Necessary resources are simply somewhere to sit, a blackboard/whiteboard/flipchart, pens and paper, and somewhere to display feedback sheets and resources (a string "washing line" serves well when there is no wall). Arrangements are needed to photocopy any resources that the participants want to purchase before the course ends.

On the first TT course I used three posters for my NC3 teaching. They were commercially produced A1 size, full-colour, laminated posters. The participants borrowed the posters during the course and I observed them teaching what they had learned. The posters were useful but too expensive for ordinary school use so I stopped using them.

For subsequent courses I designed a series of monochrome A4 diagrams, with separate notes, which can be photocopied locally, and affordably. The participants can show the diagrams around at school or copy them onto the blackboard. I only teach what is on the written notes. This means that the participants are taught using NC3 resources and activities which they then use to teach their pupils. I have been able to observe some sheets in use. The information being passed on was more accurate than with the large posters.

I have not written up all of NC3, just enough to try the approach. Teachers do buy the sheets.

In theory teachers could use NC3 resources with no F2F training. However it is helpful to go through the information together, and discuss it to check understanding.

During NC3 there are also role plays and other participative activities which can be replicated in schools. Such activities need to be experienced before they can be passed on to the pupils.

We are gradually putting NC3 resources online, using Moodle. (We normally use Moodle for collaborative work, not teaching). These online resources are for people presenting courses,. (e.g. people who have already presented TT with me, and other trainers who saw the materials and asked to use them). TT on Moodle is not an ODL version of TT, just a way for presenters to easily print out master copies of resources. However, presenters may want to adapt the course, so I added some training notes to help them find the resources they are looking for and use them in a variety of ways.

### **Course presentation – Hands-On Computers**

Hands-On computers includes online work, but some can be done off-line if that is easier/cheaper to arrange.

The introduction to practical work is done with everyone following the same detailed spoken instructions at the same time. Subsequently participants use instruction manuals (a new kind of learning for most of them). They work in twos or threes (for moral support and because of the need to share equipment). They are helped by people who belong to 'the rescue squad' (who 'rescue' but don't explain because 'explanations' from techies can be confusing to people who are new to computers). The rescue squad helps whenever someone has pressed some wrong keys and needs the computer screen put back the way it should be.

In addition to initial keyboard familiarity there are various computer applications that can be demonstrated off-line, for later follow-up, such as some office applications, and CDs to make the computer a 'digital library'.

### **Course presentation – TT-Online**

TT-Online, by definition, is online. However it is not necessary for organisation to have their own Internet connection before presenting TT. TT-Online could be presented through block bookings at a cybercafe. TT-Online sessions are best spread out but could all be done on the same day if travel was an issue.

The future vision for TT-Online is to offer it more widely, using facilitators who are not qualified trainers e.g. cyber cafe staff who have demonstrated an aptitude for customer care, or young people who have learned the basics of computer operation and Internet use and show flair for helping others. Such people could be given a little extra training so they could help TT participants with the initial stages of TT-Online, such as getting an email address, sending an email, coming to a TT-Online chat room session, joining a TT yahoo group and participating in it, and searching for resources and information using Google and Wikipedia.

### **Continuing TT-Online involvement**

Course participants are usually extremely enthusiastic about the TT-Online element of the course and want to continue their involvement.

Evidence of this interest includes:

- Participants from the first TT course having yahoo chats with me when they returned to Fantsuam for other reasons.
- Participants attending TT anniversary celebrations and joining in the celebratory yahoo conferences.
- A participant who lived far from Internet access in very rural Nigeria sending an email to me through an intermediary asking for information from the Internet. She was experimenting with planting ginger and wanted specific advice before harvest time. (She said that if the crop was successful she would share what she had learned with her community).
- Participants in Kenya attending monthly follow-up meetings to go online who regularly e-meet me, and other TT Kenya supporters, in the chat room.
- Participants contributing to TT-related yahoo groups.
- A teacher from a village school in Oyo State using his mobile phone to contribute to TT-related yahoo groups and participate in the chat room.

The main stumbling block to continuing TT-Online involvement is cost - the cost of being online and the cost of travelling to a cyber cafe or other Internet access point (or the cost of buying and using an appropriate mobile phone).

TT cannot solve the problems of resources. However it can:

- Train teachers to make the most of what is available now.
- Give them a vision for what may come later.
- Encourage them to influence change.
- Provide a welcoming online community and virtual home for them when they do manage to get online.

### **Duration**

Most of the TT courses have been introductory and one week's duration, but could be broken into smaller units. In Oyo State in Nigeria various elements of TT have been presented informally at the Community Information Centre in Ago-Are and with schools.

There is sufficient content for follow-up courses. Some of the follow-up content has already been tested, but is no longer included in the first week. This is because TT has gone through various revisions, and new things have been added which were not initially recognised as important.

People love to use computers and go online so we try to schedule about half of the training time for a combination of Hands-On Computers and TT-Online, but this is not always possible. A good proportion of the practical should be online, but some, such as the initial familiarisation can be offline. A successful course can be run with as little as four hours computer time.

### **Replication**

TT can be replicated. It has already adapted well, going from Nigeria to Kenya. One stumbling block to replication is currently my role as presenter, but I could be replaced by people with the right aptitude who had been given some training. Local presenters would be better as there would be no culture gaps or linguistic

difficulties. Some course elements I currently teach F2F would need to be written up for other presenters. It would also be necessary to look at the support provided through the informal TT-Online network and see how that could be extended so that more TT participants could be supported. Additional improvements could be made if considerably more funds were available but are not essential. There are no real major barriers to replication.

## **SUMMARY**

TT is an in-service training programme, developed with teachers in rural Nigeria and Kenya.

Internet references relating to TT (including photos) have been put together for easy access as a Google doc at [http://docs.google.com/Doc?id=dvkjgqm\\_273g2jq4rf8](http://docs.google.com/Doc?id=dvkjgqm_273g2jq4rf8)

TT has relevance for wider community education and training. It has been designed and developed with much voluntary help and online collaboration in order to:

- Develop an effective and appropriate introduction to ICT for rural teachers.
- Give TT participants confidence-building experiences of using computers (including the Internet) so they can teach about ICT from first hand experience.
- Relate TT content to technologies and experiences that will be familiar to rural pupils (this is becoming easier now that teachers and pupils are increasingly likely to have experience of mobile phones).
- Enable participants to teach about ICT in relevant and effective ways (without computers) in their ordinary under-resourced rural schools.
- Develop a system of Internet-enabled ongoing support for TT participants through TT-Online and other networks.
- Welcome participants into the TT-Online community, so they feel part of that community and are motivated to find ways to go online to re-connect and maintain TT-Online relationships after the initial training has finished.
- Give participants a vision for what could be possible in their own ongoing professional development and the education and training of their pupils and communities in the 21<sup>st</sup> century through ICT
- Prepare “high-flyers” to enter into informed debate with policy makers and funding agents about future directions of ICT and Tech-MODE – because rural teachers are the experts regarding rural education and development needs.
- Make TT replicable – by delivering most of the training in ordinary classrooms with the practical session(s) possible at existing online facilities such as cyber cafes.
- Make TT part of a wider collaboration addressing the issues of lack of connectivity in rural areas
- Recognise elements of TT delivery that can be done using Tech-MODE and develop them far enough for successful proof of concept.
- Recognise elements of TT that can be facilitated by people who are not qualified teachers or trainers (such as cyber cafe staff and young people with experience of using cybercafes).

TT has made demonstrable progress with all the above.

TT is an independent research, development and training programme, which welcomes collaboration with individuals and organisations who have overlapping interests and objectives.