



## **The Shongololo Interconnectivity Pilot Project – a work in progress**

A Shongololo (more correctly eShongololo) is an African millipede, with a black shiny shell - like skin and sensitive antennae. It is a shy creature which is seen most often after a tropical thunderstorm. When touched, it curls into a circle. Shongololo was chosen because the project 'grew legs' quite quickly as more schools came on board, the participants will have to be sensitive to others and at the same time quite hard skinned and robust in the face of technology.

NB Please note that

- educator and teacher are synonymous, as is learner and pupil. The former of each are used as the preferred term in South African education
- teacher-librarian has been used instead of media teacher, library media specialist etc
- the project is in an advanced state of development but not all the schools are on-line as yet

### **Background**

Simply put, this is a pilot project that is being run over a year, linking 20 developing schools and 20 developed schools (technologically speaking) in KwaZulu-Natal, South Africa with 20 schools in the United Kingdom. The main objective is to have learners communicate with each other via e-mail; this to mutually solve problems, identify and enjoy differences and to discover commonalities. The e-mail aspect will be run on similar lines to Global Teenager but there will be twenty mailing lists, these created to include three schools at a time and in similar phases i.e. Foundation, Intermediate and Senior. It is hoped that over and above this will be:

- Communication on professional topics between the facilitators (educators) involved
- Teacher exchanges, both locally and overseas e.g. an informal internship between the librarians in the developing and the developed schools, British Council funded exchanges
- E-Mail exchanges between other bodies in the school community e.g. library monitor body etc
- Fund-raising by the AfriTwin schools for the developing schools in South Africa
- Information retrieval using the Internet for both educators and learners
- Exposure to professional mailing lists for the educators

This project is being run under the auspices of the KwaZulu-Natal Department of Education and the AfriTwin Education Trust, an NGO near Manchester, England. ELITS i.e. Education Library, Information and Technology Services, is a Directorate in the KZN Department of Education and it comprises of Head Office staff, four Regional Heads as well as forty two school library advisors. The four regions are Ukhalhamba, Zululand, eThekwini and Umgungundlovu.

The Department is responsible for the education of over 2, 5 million learners, has approximately 76000 educators and there are over 6000 schools. 27% of these have some sort of school library, very often books in a store-room. The terrain and size of KwaZulu-Natal present a challenge, especially when it comes to issues of connectivity. There are also numerous education centres scattered throughout the province, these provide for the needs of the educators on a local level. Added to the challenge is the diverse distribution of resources; these range from well equipped urban schools who have an historical advantage and which continue to enjoy world class facilities, to schools made of mud and wattle with no electricity, no running water and little in the way of educational resources. ELITS is committed to redress whilst at the same time staying current in terms of trends in the area of Information and Communications Technology (ICT) and in keeping with policy documentation such as the Draft White Paper on e.Education. It is to this end that the Shongololo Project was conceived.

KwaZulu-Natal has a unique set of circumstances in terms of provision of resources, as outlined above. The Western Cape has considerably fewer schools to service; approximately 1750 and this quantity is similar to that of Gauteng. The Western Cape has long had a co-ordinated strategy to ICT provision and training in the schools and one strategy was to ensure that every school had an online computer for administrative purposes. Gauteng has preferred the 'Big Bang' approach i.e. putting banks of computers into identified schools and this project is well on its way. KZN is in the process of formulating a strategy for the province but, as explained above, has logistical problems like no other province, excepting perhaps the Eastern Cape.

## **Philosophy**

ELITS, as a Directorate, is mandated to cater to the school library/resource collection of the schools. A school library policy for the Province has been created and firmly entrenched within that policy is the necessity for technology within the school library/resource collection environment. ELITS does not see computers solely in the realm of library administration, indeed library automation often creates its own time consuming problems. Computers are primarily seen to be a means to delivering information, be it on or offline, and also to enable communication between professionals and also the learners. Below are the ELITS principles governing ICT provision in the school library/resource collection environment

### **Principles guiding the ICT vision for ELITS**

#### *Rationale*

- that ICT is seen to be a tool; a means to an end, not an end in itself
- that computers are used first and foremost by learners and educators for accessing information as opposed to administrative work by educators
- that for computer training to have meaning, applications are taught within context and at point of need (just-in-time versus just-in-case) across the curriculum and with meaning

#### *Provisioning*

- that reading and literacy are not taught using a computer therefore the provision of books and libraries remains an essential in our schools. Digital libraries cannot replace book libraries
- that where there are computers there should be a library and where there is a library there should be computers (information centres). This principle applies to all educator resource centres in the province as well as schools. Also, libraries and computer centres should be adjacent
- that a bank of networked computers is not a pre-requisite for effective use of technology. A single on-line computer, accessible to learners and educators in a school, and managed by a nominated person e.g. an information specialist, provides an excellent starting point to information retrieval and collaborative learning projects e.g. Global Teenager so that computers are taught across the curriculum and in context

### *Pedagogic principles*

- that new teaching methodologies need to be used if educators are going to use the potential of the technology (e.g. currency of information allows for authentic versus contrived problem solving - PBL - problem based learning)
- that the philosophy of outcomes-based education take place i.e. learners exercise choice as opposed to traditional teaching whereby the learners all follow the same instruction (free-range versus the battery hen approach). Beyond being a sound pedagogic principle, it means that resources are more equitably shared and that learners are developing different skills through using a range of resources

### *Human resource requirements*

- that teacher-librarians (information specialists) are professionals and thus
  - a) need to be qualified as such i.e. as educators, librarians and competent in the use of ICT
  - b) collaborate with the educators in an equal and advisory role to ensure that information literacy takes place across the curriculum
  - c) ensure that effective information skills are taught so that learners are thus ethical, competent and discerning users of information

*The latter point is the most pivotal of all. ELITS is dedicated to creating information literate individuals i.e. a person who can manage the wealth of information available. This concept is beyond acquiring mere information skills but to make sense of this information and to create new and unique information from it.*

ELITS believes that a single on-line computer that is managed by a competent and interested individual can go a long way into taking a school from a bicycle on the edge of the information highway to a fast motorcar. The emphasis is on access to information and communication, not training in computer applications. Ideally, it is acknowledged, every learner in the Province should have the resources to both become completely computer literate and that a single on-line PC is definitely an interim strategy. If one waits however, for the ideal to happen, the learners in KZN will stay forever in a time warp of expectation and turn-of-the-last century education.

### **Project Outline**

#### **Developing schools in KwaZulu-Natal**

It is thus that the Directorate made the finance available for this small project. Twenty schools in deep-rural KwaZulu-Natal were selected over a three month period. ELITS has an ICT committee and within that committee are the ELITS Regional Heads. Lunga Molapo was elected to be the project co-ordinator and myself Joy Rosario, ELITS Head Office i/c ICT, Project Manager. The Regional Heads nominated schools in their regions as possible candidates and these were all visited. The selection was from each of the three phases and the regions also attempted to cover their three circuits to ensure as participation as possible.

Amongst the list of criteria were;

- A willingness to participate
- Support from management
- Preparedness to fund the online connection
- The provision of strong security
- A person who is prepared to drive the project in the school
- Time for face-to-face training

The Principal in each school had to agree to the participation of the school and also to a year long commitment from the date of the actual start of the project. ELITS has reserved the right to withdraw the investment of the computer if a school fails to maintain e-mail contact for any reason,

be it unpaid telephone or electricity accounts etc. Should a school manage to sustain the project, the computer and all the peripherals will stay in the school and it will continue to be supported by ELITS, but not under the umbrella of the project as it were.

Each of the schools was then provided with a full-house Pentium 4 PC, printer, external modem, software (Inspiration, Literacy Bank and, in the case of the Foundation and Intermediate schools Dorling Kindersley World Explorer and Libwin library automation programme). The Microsoft Schools Agreement was duly completed by each school and they are, at present waiting for the CD-Rom disk. Encarta encyclopaedia will then become available, as will the atlas and dictionary. It is anticipated that each school will have a website, indeed the sites were created during the training which took place. The schools were also provided with a selection of paper-based material, mostly reference such as dictionaries, encyclopaedias and atlases. Specifically each school was also provided with the Dorling Kindersley Travel Guide to South Africa; this is a superb title which is content rich and clearly illustrated. It was felt that learners should be exposed to information about their own their country, especially as some have not had the opportunity to travel very far.

Training then took place. This was over a period of three days and the Principal of each school was invited to the initial orientation day. Past experience had shown that if one does not have the support from management, then problems arise. It was also important to have Principals understand that a computer will not necessarily circumvent problems in the education system. There is the perception that technology is the answer to all ills with little realisation that it brings its own separate expensive issues.

Two educators from each school were trained, the teacher-librarian and another person chosen to sustain and support the project. This was a wise move as already one of the teacher-librarians has been fond to be 'in excess' and has moved on. The training in no way tried to create computer literate persons, more computer confident ones. By the end, each individual had practised sending e-mail using Microsoft Outlook, this was a necessary skill above all other. Permission was granted to use the Educators' Network CD (produced by a local NGO as part of another initiative) in the project, primarily for the excellent tip sheets on using the different applications; something the educators could work through in their own time. A website in FrontPage was created for each school and the basics of FrontPage then taught in order that the site be maintained locally. It was suggested that the schools use Telkom as an ISP option as it was the most reasonable dial-up option available and offered 10mgs of web space on the server. This has proved to be something of a problem because the 'free space' does not support Windows. Discussion is ranging at present because the Microsoft School Agreement offers free software to schools and this includes FrontPage, yet Telkom does not support it. Telkom has otherwise been supportive in expediting telephone lines; schools that could provide a reference number were prioritised.

The educators then returned to their schools geared up to the project with the necessary hard and software and the elementary training to manage. The next stage was for the schools to familiarise themselves with the equipment, ensure the phone lines and security were in place, get connected and start e-mailing.

### **Developed Schools in KwaZulu-Natal**

The project was advertised on InfoLink, a South African mailing list for teacher-librarians and ICT educators. It is, on the whole, representative of functional school libraries in South Africa with over 200 subscribers. Participation in the project was voluntary and it was gratifying to note the number of these schools which came forward. Most developed schools have outreach type activities and this project offers a good platform. It was felt that the inclusion of the schools was a necessary aspect to the project as

- It needed to be underpinned with local support
- Cross continental projects are a bit pointless if children in the same country do not have the opportunity to talk to each other, equally they enjoy the interaction with 'overseas' friends
- Local developed schools are of world class standard

The facilitator in each school, mostly the teacher-librarian, made/is making contact with the developing school and United Kingdom school. Problems to date have been incorrect e-mail addresses, firewalls, unpaid electricity and telephone accounts and school holidays. There has been, however, interaction with most of the schools and this has included telephonic discussion.

### **United Kingdom schools**

When this project was originally mooted the School Librarians Network (SLN) in the UK were going to be approached. Fortunately Jayne Martin of the AfriTwin Education Trust was proposed as a contact and ELITS decided that, as she already had an interest in connecting South African schools, we would work with AfriTwin. I commenced an e-mail relationship with Jayne which was enhanced by us meeting in Cape Town in December 2003. We discussed the outline of the project and agreed on a modus operandi. Subsequently AfriTwin invited me to visit the relevant schools and meet the Principals at a presentation in Manchester in April. I was going to another work-unrelated meeting in Germany and ELITS agreed to fund the UK travel expenses, AfriTwin and the Martin family funded the rest.

The visit consisted of a presentation at one of the participating schools to a meeting of the Principals involved and thereafter visits to the rest of the schools including technology colleges. This was most interesting as the one that is a "Shongololo twin" has closed the library, put the books in storage and converted the space into two computer laboratories. The Deputy Head Teacher involved is endeavouring to reverse the decision as he understands what the school has lost in the process. This particular school boasts one computer for every two pupils.

Another school has had an unfortunate experience in twinning with South Africa as none of the e-mails went through either way. We have put the UK school in touch with Carolyn Burton at Springfield Convent in Cape Town in the interim, as we were confident that they would be reciprocal exchange in the interim.

It is interesting to note that 'citizenship' is a subject in the UK curriculum and quite a few citizenship teachers will be running the project. Sustainable development, fair trade and environmental issues will be relevant to learners in both countries. This is an interesting development and a useful one as there is plenty of material on these topics both on and offline and they also stay clear the issues our youth are exposed to exhaustively i.e. HIV/AIDS, crime and drugs.

Topics for the project will be based on real-life problem solving issues that are 'citizenship based' and phrased according to phase level e.g. 'what did you have for breakfast' to what comprises a food pyramid (nutrition) in your country to how to make a nutritious soup. Topics will be generated by the facilitators and will pertain to issues in their schools that would be of common interest.

### **Present status**

Over and above regional support the second visit to each of the developing schools is in progress, eighteen of the schools have been visited and are online. The following issues are being addressed in a visit.

- Establish connectivity
- Explain the library automation system further
- Discuss the topics and groups of learners – about six at a time
- Explain and demonstrate virus protection
- Establish that e-mail is understood
- Check the cache of connected machines
- Demonstrate the books/videos and Cd's brought back courtesy of AfriTwin and Intel
- Check security
- Check interest
- Password protect the computer
- Troubleshoot any other problems

There is a school that owes a considerable amount towards electricity so has been cut off, similarly one of the schools cannot get a telephone line because of an unpaid phone account. Several of the schools have raised sponsorship money towards security and also their telephone connectivity charges. A couple of the schools are using the e-mail in the Principal's office while they wait for a line. Each school e-mails me when they are connected and I am in the process of putting them in touch with their twins. Mrs Molapo continues to maintain contact with all the schools per telephone and facilitate the contact until they are online.

A mailing list has been created through Yahoo groups for all the facilitators involved and including Lunga Molapo, Jayne Martin and myself. Two further meetings are anticipated whereby all the local facilitators will meet each other.

AfriTwin has created a website (<http://www.afritwin.net>) and reports on the project will be uploaded regularly as we get going.

Other than moderating the lists and troubleshooting, we anticipate that the project will develop. The life cycle of an e-mail exchange will be considered, as will the group dynamics especially in a technologically sophisticated school versus one new the medium. Experience in the Western Cape has alerted me to the sort of problems that one can anticipate and hopefully most of this will have been circumnavigated in the planning. Fortunately ELITS is committed to the time and expense of this particular project as it is important that the notion of a single online PC making a difference is proved. As the dynamics of the project change so will the management, not all the issues will have been foreseen and we are also dealing with the internal issues in each school, all very different from each other.

The project co-ordinators are confident that there will be a range of examples of good practice examples and that both learners and educators will have found benefit in participating.

### **Future status**

The project will be used as vehicle for persuading key stakeholders that the information highway is accessible for both learners and educators. As and when funding becomes available the project will grow and it is hoped that there will be a reciprocal exchange with other countries as well, besides Britain.

The schools involved are as follows;

### **Developing schools South Africa**

Umzokhulayo Junior Primary  
Russell Junior Primary  
Sethembinkosi Junior Primary  
Hlabana Primary  
Nansindela Junior & Senior  
Primary  
Cwembe Primary  
Kwamanzini Primary  
Sithobelumtetho Senior Primary  
Ndabanhle Primary  
Empola Primary  
Sinaye Senior Primary  
Enhlanhleni Combined  
Adams College  
Margot Fonteyn Secondary  
Somshoko Secondary  
Vukile High  
Ndlangamandla Secondary

Silindokuhle Secondary  
Esizibeni Comprehensive  
Masibonisane Secondary

### **Developed Schools South Africa**

Highbury Junior Primary  
Scottsville Junior Primary  
Cowan House Junior Primary  
Kloof Junior Primary  
Laddsworth Primary  
Egerton Primary  
Highbury Primary  
Cowan House  
Richmond Primary  
Clifton Primary  
St Benedict Primary  
Thomas More Primary  
Kearsney College  
Pinetown Boys  
St Marys DSG  
Thomas More  
St Johns  
Michaelhouse  
Maritzburg College  
Pietermaritzburg Girls High

### **AfriTwin schools in the United Kingdom (two schools are being replaced)**

Ryleys  
Moss Park

Broadheath Primary  
Wilmslow Prep  
Peover Superior  
Ryleys

Woodheys  
Altrincham Prep  
St Alphonsus  
Stockport Grammar  
Urmston Grammar  
Hyde Tech  
Alderley Edge Girls  
King Edward V  
Wilmslow Comprehensive  
Birkenhead Boys High  
Altrincham Boys Grammar  
Fairfield Girls High