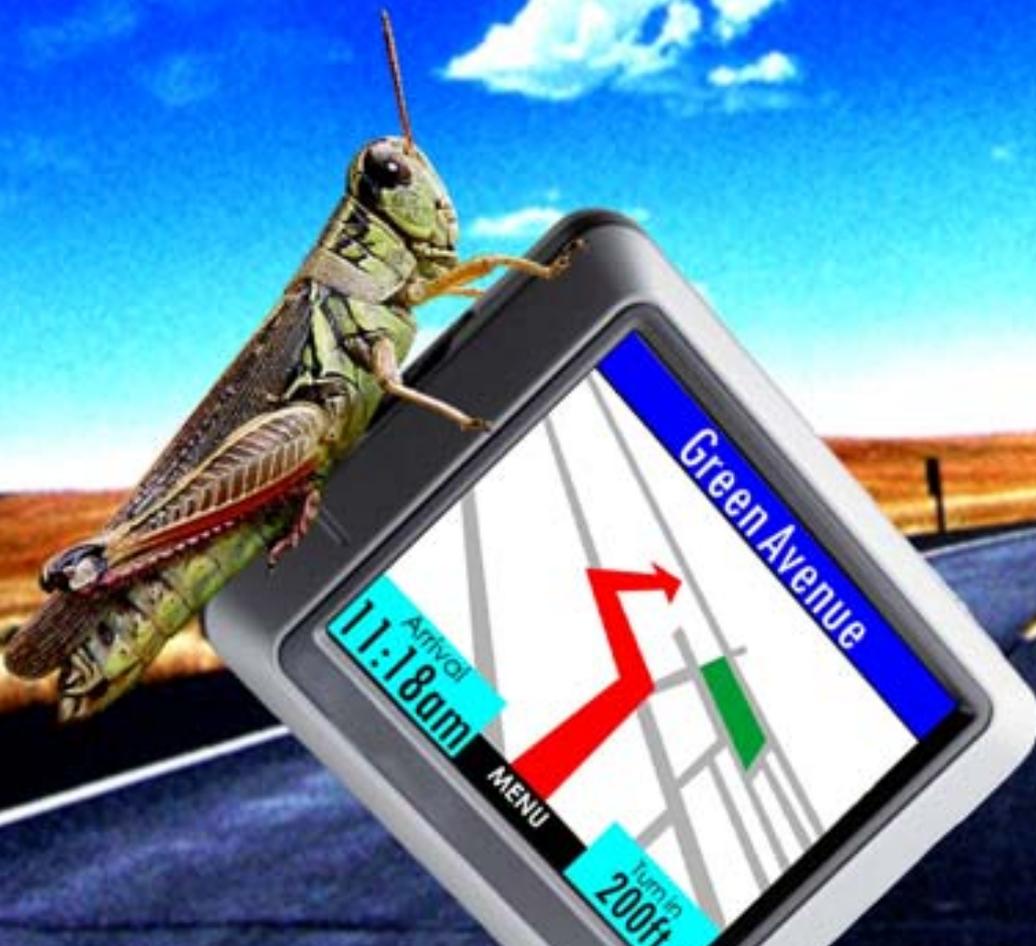




Gadgets AND TOOLS

Pier Goudappel



Contents

Some reflections on the Grassroots Projects by Pier Goudappel.....	1
ICT and SEN Project.....	3
Methodology: The art of showing.....	6
ICT and MUSIC Project.....	8
Methodology: Independent Learning.....	11
GPS Project.....	12
Methodology: Games and active learning methods.....	14
Google SketchUp Project.....	16
Methodology: The art of explaining.....	18

GROUP 2

Gadgets and Tools

SOME REFLECTIONS ON THE GRASSROOTS PROJECTS

PIER GOUDAPPEL

As a mentor I have been trying to establish a way of communication with the group members that would fit into the Grassroots way of working. This means that the responsibility is at the group member's side and that we are trying to use as many modern ways of communicating as possible e.g. Skype, e-mail, text messages, forums. We have been agreeing on this in a very early stage of the process and exchanged ideas on this issue. We agreed that the main way of communicating would be via e-mail and with the extra possibility of using a forum. In other, more urgent issues we would use the mobile phone. For that we made sure that all phone numbers and e-mail addresses were known. The main idea was that I, as mentor, would try to facilitate the needs of the group members as much as possible and that the group members would come up with issues or questions if there were any. During Grassroots meetings we would sit together and discuss face to face the projects and the progress made. In between the grassroots meeting we would update each other via e-mail.

I have to say that the idea was very nice but the outcome a bit disappointing. Basically it was mainly the mentor that had to come up with the questions, ideas and the monitoring of the progress. There was hardly any response on e-mails and progress reports were limited. However, at meetings all group members were present and very enthusiastic. There seemed to be no problems and it looked like progress had been made. By asking a bit further and going deeper into the issue, the outcome was that there were problems and that not all went as smooth as it looked like. Main constraints were:

- Lack of internet connection
- Lack of computer access
- Lack of money to invest for tools or software
- Lack of time or wrong time management

For me, as mentor, it was not always clear what my position and priorities were and due to that, communication hasn't always been very intense.

We have managed to organise, in cooperation with VVOB staff, a GPS for Newman Botha's project as an advance on his reward, and training on the Jaws software by Steven Chishimba Chaboba, an expert, for Mike Mulenga and his team.

Concluding, it is very important for the grassroots group members to realise that the initiative needs to come from them and that they are expected to give a regular update of their progress. Grassroots Zambia should think of how group members submit proof of what their progress is, e.g. submitting a short video of them working on the topic in class. It needs to be clear what is expected from the mentor and what role he/she can play in this process. The issue of computer and internet access should become less important because a lot of progress has been made in accessibility the last years. We should consider not allowing candidates without internet access to join Grassroots Zambia.

Explore More @



WE'RE HERE TO LEARN

A FREE website of links to over 10,000 learning resources designed exclusively around the Zambian curriculum

Suitable for pupil and teacher use

- Educational games that make learning fun
- Online Ministry of Education books
- Help with revision for exams in every subject
- "Learning at Taonga Market" radio series
- Teenage issues and health advice
- Teachers' lesson plan ideas
- Teachers' discussion forum to communicate with peers all over Zambia
- University level materials for further study or continuing professional development
- Quizzes and tests to give to your pupils

iSchool.zm www.iSchool.zm

The iSchool project is an initiative of AbriConnect (Zambia's leading high speed broadband internet provider) in collaboration with the Ministry of Education.

ICT and SEN PROJECT

INTRODUCTION: Jury Report

This Grassroots Project zooms in on the use of ICT and SEN (Special Educational Needs). New ICT tools are emerging which permits rapid exchange of knowledge and high levels of dialogue. These new tools are especially useful for people with SEN. In fact, students with disabilities might even have a greater need for accessing technology than their non-disabled peers do.

We cannot stop the desire to learn

Students with special needs can function better within the school environment with the use of technology. These students can now access podcasts, learning materials or videos, at times that suits their individual schedules. Additionally, the multimodality of these tools allows students to learn in ways that best meet their learning styles.

This Grassroots Project clearly shows that visually impaired students can start learning basic ICT skills and access (digital) information with JAWS software (see Tool 6 Tab 7). JAWS for Windows is a powerful accessibility solution that reads information on your screen using synthesized speech. JAWS provides many useful commands that make it easier to use programs, edit documents, and read Web pages. With a refreshable Braille display, JAWS can also provide Braille output in addition to, or instead of, speech.

The jury appreciates the efforts of the lecturer and the college to set up a special room dedicated to students with special needs. Such a room should have at least 2 computers connected to the internet. It is an ongoing challenge for all colleges to provide an equal opportunity to learn and provide knowledge to all students.

The jury hopes that this Grassroots Project realizes that the first steps have been set but a lot more can be done. Showing how to work with JAWS is only the beginning (the art of showing). JAWS can also be used by lecturers to assess SEN students easier. There is a wealth of information online for students with special needs. New ICT tools, such as Web 2.0 technologies, can really help them to access this information and knowledge on the internet. In that way, JAWS can bring about huge changes in the life of those students.

“ Because life, like knowing,
is not an isolated activity
it is a rich, interconnected
part of who we are. ”

(George Siemens)



NAME: MIKE MULENGA
INSTITUTION: MANSA COLLEGE OF EDUCATION
EMAIL: mikemulenga@yahoo.com

Mike Mulenga is a lecturer at Mansa College of Education. He holds a Secondary School Teachers Diploma from Nkrumah. Additionally he holds a Certificate, a Diploma and a Degree in the teaching of learners with Special Educational Needs (SEN). He has a bias in the education for students with visual impairment, and this includes coordinating the teaching-learning process for students with visual impairment in the college. He also acts as an advisor to other lecturers and the administration on the welfare of the visually impaired student-teachers in the college. Now he is carrying out a project on the use of ICT for visual impaired students in the college.

Case study on the use of JAWS for students with special needs

Tama, a blind female student-teacher, comes to Mr. Banda, a lecturer for Special Education complaining about the lack of learning materials in the college library. Mr. Banda advises her to use computers to access learning materials. Tama complains that she does not know how to use a computer. After a few days Mr. Banda arranges computer lessons for Tama and her fellow blind students in the college.

During the training in JAWS, Tama discovers that there are actually computers in the college that “talk”, and through this, documents on the computer can be accessed. Although the computer lessons were challenging in terms of mastery of keyboard skills, she put in all her effort and managed to master them. With patience and consistence Tama discovered that a computer is a “friendly” machine as it is even able to correct a person when he/she makes a mistake.

At the end of the JAWS training, Tama is excited because at last she is able to access learning materials on her own on the computer. Tama is now looking for more training in the use of other programmes on the computer and Mr. Banda has assured her he will help her.

Ukutangila Tekufikka

A Bemba saying meaning the first may not necessarily arrive first.

Muunda Umana Luzwaazwa

A Tonga saying meaning a task can be finished little by little.

What METHODOLOGY was mainly used?

The art of showing (*)

Demonstrating physical and intellectual skills

Perhaps the most natural way to learn is by imitation. If we accept that a demonstration is 'showing how' by example, then it is clear that this method can be employed by a teacher of any subject.

Demonstrating a physical skill or ability

The aim of demonstration is to provide students with a concrete example of good practice to copy or to adapt. The 'doing-detail' shows how the task is carried out, what the task achieves, to what standard it should be carried out, the indicators that the task has been carried out successfully, and so on.

Preparation

- Make sure that the students are ready: have they been introduced to the necessary background information, and do they know what the demonstration achieves? If the demonstration is likely to be long and involved, can it be broken down into parts be learned separately?
- Always practice a demonstration before doing it in front of the class, and make note of all the equipment you need, including any extras you may need to repeat the experiment if this is necessary. Can you talk and demonstrate at the same time?
- It is important to decide in advance on the key points you want to make during the demonstration. Have a summary ready for the board or overhead projector.

Execution

- Arrange the equipment in advance!
- Explain as you demonstrate if you can, preferably using questions: 'What should I do next?' 'Why am I doing it like this?' 'What should I be careful of here?' 'What would happen if ...?' Make sure your students understand the purpose of each action; they should understand the 'why' as well as the 'how'. Emphasise your key points carefully.
- Do it slowly. It is very difficult to demonstrate, talk, question, and use eye contact with the group at the same time, but try. It will increase the impact of the demonstration enormously.
- Now you need some feedback. Have they learned what you have taught them? Do they understand the how, the what and the why of the technique? To discover this, repeat the demonstration, but ask your students to 'talk you through one'. Follow their instructions, asking them questions as they tell you what to do. 'What for?' 'Why must I do that first?' and so on.

Some techniques you might like to try:

The 'how not to do it' demonstration

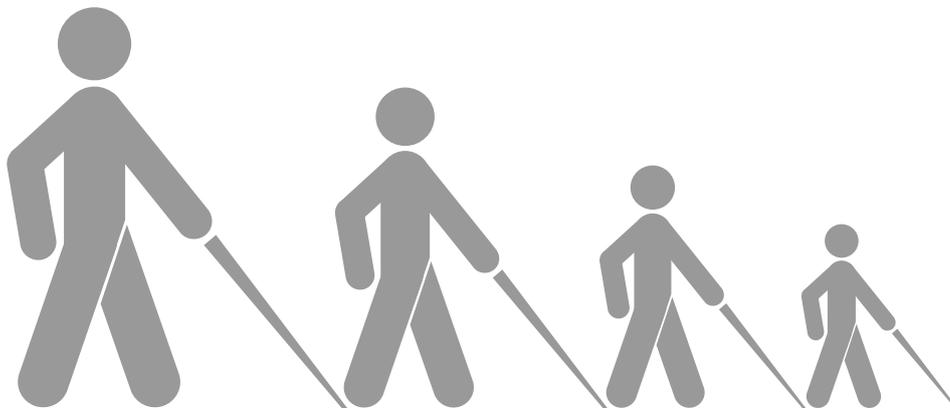
We can learn from deliberate mistakes, but be careful that your students do not become confused, or learn the wrong technique. With humour this method can be very effective.

The Socratic demonstration

You ask the class to tell you how to do it right from the start, and follow their instructions, asking for clarifications as you go. This approach can be very amusing if their instructions don't work.

The student demonstration

Students can demonstrate too, and not necessarily before you have demonstrated it yourself.



(*) Excerpted and adapted from PETTY, G. (2009). **Teaching Today. A Practical Guide.** Stanley Thornes (Publishers) Limited, Cheltenham.

ICT and MUSIC PROJECT

INTRODUCTION: Jury Report

**

This exciting Grassroots Project makes learning music easy and fun. It stimulates learners to compose and play music on the computer via FL Studio, formerly known as Fruity Loops. This is a digital audio workstation which you can use to compose, record, edit and mix your own music (See Tool 19).

The jury appreciates the fact that the lecturer is not putting too much emphasis on the learning of the software. The emphasis is on the discovery of FL Studio learning by “doing” as individuals or as a group, during the lessons and in the free time (see eLesson in Tab 8)!

The digital audio workstation involves the practical (and thereby, more meaningful) application of textbook theory

Debates can be hold about the loss of musical skills of the students. Still, the digital audio workstation has the potential to be used as a tool to spark interest in the more time-consuming task of actually learning to play music on real instruments. The Grassroots Project indicates that it motivates students to learn and to enjoy learning. Still, a skilled facilitator is constantly aware of the fact that learners' satisfaction is not the sole aim of education as such. The jury is therefore reluctant to evaluate the worth of this Grassroots Project by the indicator of the participants' satisfaction only. Most significant advances in people's musical skills arise out of periods of frustration and struggle. It is clear that this digital audio station cannot be used to replace the traditional (frustrating and difficult) music lessons with a teacher. It can be used to whet the appetite for music.

Computers can be seen as yet another type of instructional technology

This Grassroots Project also shows that when you use technology in the classroom, lecturers have to take on new and expanded roles. Technology supports student-centered instruction. The lecturer assumes the role of coach or facilitator while students work independently.

The jury hopes to HEAR more about this musical Grassroots Project.



NAME: STEPHEN M MALAMBO
INSTITUTION: CHARLES LWANGA COLLEGE OF EDUCATION
EMAIL: *msmalambo@clce.ac.zm*

Stephen Malambo is a music lecturer at Charles Lwanga College of Education. He has worked as a primary school teacher before. He has set up a Grassroots Project to enhance the teaching of music with the help of ICT.

He has taught music for 12 years and he found out that students usually abandon the subject after completing the course simply because there is no one to offer extra tuition once they have left the college. His concern is that many people leave music to those who have a big interest in it.

The use of certain tools and gadgets on the computer can enable one to learn music without a tutor. This is the objective of the Grassroots Project he's working on and he hopes that it will make the teaching and learning of music easier and more interesting.

Case Study on the use of FRUITY LOOPS and INDEPENDENT LEARNING:

Four year' students entered Mr. Kabaso tutorial room at 14hours. Each student sat facing a computer monitor and waited for instructions. Mr. Kabaso greeted them and switched on the LCD projector: the musical symbol of crotchets and minims appeared. He did a quick revision of the notes. Next he introduced the new lesson and he asked the students whether they were able to play any musical instruments. None of the students could play a musical instrument and he asked them to turn on their computers. The student's already learnt how to do this and within a few minutes all four computers were "alive".

The lesson began and Mr. Kabaso used different methodologies including supervised student practice and independent learning. He showed the students how to open the Fruity Loops software. The students put on their headsets and opened the program. He then asked the students to play the beats appearing in the window and select a beat. Mr. Kabaso showed them how to make sounds using the buttons in the window. He also showed them how to make a crotchet and minim beat. Three of the students were able to do it correctly, but Sharon had problems and Mr. Kabaso had to give her extra tuition.

Then, it was time for independent learning and for the next half hour the room was quiet except for the clicking of the mouse here and there. After students had composed their pieces, Mr. Kabaso went round, helping where necessary. The students used speakers to present their work to the rest of the group. The group discussed the compositions. Finally, the students were asked to compose another piece during their spare time.

Since the students do not have their own personal computers, arrangements had to be made for the students to come to Mr. Kabaso's tutorial room during their spare time. The students became so motivated with the program, that they even wanted to use weekends for practicing on their music. Clicking on a mouse is not as laborious as playing a guitar or a keyboard.



Kalya Uzumanana

A Tonga saying meaning he or she who tries or keeps on trying, gets the reward.

Tako Tapi

A Tonga saying meaning lazy people do not achieve a lot in life.

What METHODOLOGY was mainly used?

Independent Learning (*)

How can students learn with minimum teacher involvement?

Independent learning means students learning a topic which is defined by the teacher, but which is not necessarily taught by him/her. However, the teacher does assess the learning.

Over a series of independent learning assignments, increasing responsibility is given to the students until they become able to learn without help. During this time they are coached in independent learning skills, but not in the topic they are studying. At first students are shown suitable resources and their work is monitored but independent learning skills will only be developed if you gradually remove your help. Independent learning requires that students learn how to find their own resources, how to discover and then correct their own learning deficiencies, and how to monitor their own learning by standards they themselves decide are appropriate.

Independent learning is a difficult teaching method to use, but it will work if enough care is given to task design, monitoring and assessment. These aspects need to be tuned to the topic and to the capabilities of the students.

Designing the Independent learning task

Independent learning tasks can be directed and non-directed.

A directed task might be a detailed assignment giving a carefully planned sequence of tasks, or a set of worksheets with carefully chosen book references with page numbers.

A less directed task might be a requirement to produce a set of revision notes on the topic, using the set of references provided, and some relevant questions for reflection afterwards.

A non-directed task might be to prepare notes on a given topic, the students being provided with the relevant part of the syllabus.

The more directed the task the less likely students are to get stuck, or misinterpret the task, so it is worth being very directive at first.

Why use Independent learning?

It reduces the pace and pressure of teaching, enabling the teacher to deal with difficult material more slowly, and increase the proportion of time spent on active, student-centred activities.

It increases motivation. The coaching involved encourages students to take full responsibility for their own learning. It challenges passive attitudes to learning, and teaches the active learners' coping strategies and mind-set.

Students develop independent learning skills and attitudes which are of vital importance for educational development and progression.

Students can learn at their own pace, and in a manner which suits their own preferences and learning style.

It encourages 'deep' rather than 'surface' learning.

Students discover they can learn without a teacher.

Giving students control over how they work greatly increases their sense of responsibility, motivation and effectiveness.

(*) *Excerpted and adapted from PETTY, G. (2009). Teaching Today. A Practical Guide. Stanley Thornes (Publishers) Limited, Cheltenham.*

The Use of the GPS in **OUTDOOR LEARNING ACTIVITIES PROJECT**

INTRODUCTION: Jury Report

**

As soon as the jury saw the application of this Grassroots Project it realised its full potential. Geocaching is a high-tech treasure hunting game played throughout the world by adventure seekers equipped with GPS devices.

The basic idea is to locate hidden containers, called geocaches, outdoors and then share your experiences online. Geocaching is enjoyed by people from all age groups, with a strong sense of community and support for the environment. Still, the game may be adapted to almost any educational topic or subject area including science, physical education, maths, environmental education and (local) history.

In this Grassroots Project the students not only learn the understanding of latitude, longitude, and other basic geography tools, but also learn more about the area in which they live, including places where they haven't been before, local history, and more. But even more importantly, the technology is fun and useful.

Geocaching is an exercise for your mind and body

The jury feels a dimension to a successful geocaching project is missing in this Grassroots Project: GPS + Geocaching + Google Earth. One of the most powerful tools that is popular within the geocaching community is Google Earth (see Tool 4 Tab 7). Due to the lack of a reliable internet connection at the college, this tool was not used and the experiences were not shared online. A simple Google search on geocaching will open totally new perspectives of this very exciting application. For example, if you download the "**Google Earth KML**" from the geocaching.com profile page, you can view the approximate location of up to 150 geocaches at a time in your Google earth screen.

The jury hopes to SEE more geocaching initiatives in various courses at Mansa College of Education.

NAME: NEWMAN BOTHA
INSTITUTION: MANSА COLLEGE OF EDUCATION
EMAIL: *newmanbotha70@yahoo.com*

Newman Botha was born in the Copperbelt province of Zambia in Mufulira District. He did his primary school at Muleya Winter and went on to Mufulira Secondary School where he did his form one to five. He was trained as a Secondary School Science teacher at Copperbelt Secondary Teachers College and was posted to teach at Mwense Secondary School to teach science. After completing an Advanced Secondary Teacher's Diploma in Physics at Kwame Nkrumah Teacher's College, he was appointed as Head of Department in Natural Sciences at the same school. Later on Newman Botha was transferred to St Clement's High school in another district. After upgrading at the University of Zambia where he studied Single Major Physical Geography, he was promoted to lecture at Mansa College of Education where he still is. Newman Botha is currently doing his post-graduate studies in Environmental Management with UNISA in South Africa. He is a participant in a Grassroot Project where he did his project on the use of GPS in Outdoor Learning Activities.

Case study on the Use of the GPS in OUTDOOR LEARNING ACTIVITIES (TREASURE HUNT)

Mr. Malambo has been dreaming a long time about organising a GPS-based activity like geocaching. This will transform his classroom from a teacher-centred environment into an exciting, empowering, exploratory environment that focuses on student engagement in the learning process. The Grassroots Project gave him that opportunity.

Geocaching is an outdoor treasure-hunting game in which the particular participants use a GPS receiver to hide and seek containers holding objects to be sought for, identified, worked on or indeed described. As a biology teacher, Mr. Malambo linked geocaching to the environment in general and to trees more specifically.

To begin with, students were taught how to use the GPS and locate objects and items of socio-economic significance at college. To bring even more fun in learning the students were then introduced to geocaching. The students received the coordinates of pine trees and eucalyptus surrounding the college. They had to find the trees as fast as possible. Next to the tree there was a bottle with the exact coordinates. The students were very excited since they had never done anything like this before.

What **METHODOLOGY** was mainly used?

Games and active learning methods (*)

Learning and enjoyment are not mutually exclusive. Games may be adapted to almost any topic or subject area. Most of these games can be played by students as individuals or in groups.

The Quiz

Quizzes are usually arranged as a competition between groups. Split the quiz up into different sections, along the following lines:

Groups answering questions in turn. (Will consulting be allowed? Will unanswered questions be offered to another group?)

Questions for individuals (two points for a correct answer, one point if there is conferring with other team members).

Questions for groups, where challenges from other groups can gain them double points if they challenge correctly, and a loss of a point if they challenge incorrectly.

Difficult questions for the first raised hand (with referring to notes allowed).

Questions which are very difficult to begin with, and then become progressively easier (but score fewer points) as more information is given.

Most commonly the teacher asks the questions. Alternatively, students can make up questions for their competitors to answer. The groups ask each other their questions in turn in a quiz format. These questions and answers need to be checked by you.

Quizzes are a popular means of enlivening revision. Try reviewing last lesson at the beginning of the next using a two-sided quiz with one half of the class against the other. Ask 'What can you remember about last lesson's topic?' Each side gives one point in turn. The aim is not to be the side that cannot think of anything more to say about the topic.

TENNIS If students share a summarised set of revision notes they can test each other's recall by playing 'tennis'. Students lay against each other in pairs (or mixed doubles) asking questions to each other from the revision notes alternately. This 'rally' goes on until one student makes a mistake, when a point goes to the other. They take turns to 'serve' and scoring is like tennis: love, 15, 30, 40, game, with deuce' at 40-40.

The Competition

Each student is either a 'competitor', who prepares work for presentation, or a 'judge' who evaluates the competitor's work after deciding on the judging criteria. Once work has been presented to the judges, they hold a discussion to evaluate the work. Only judges are allowed to speak, but competitors are allowed to listen. Judges are usually arranged in a circle in the middle of the room. For each piece of work, the judges can be asked to say what they liked about it, and to suggest one way in which it could have been improved.

Examples might be:

a poster to show the effects of drugs on the society

a poetry or short story competition

competitions to make designs for a school logo

Modified TV/radio games

Students often find it amusing to play an adaptation of a well-known TV or radio game show.

The challenge

Almost any activity can be made into a game by turning it into a challenge!

For example: 'Five factors causing urbanisation are mentioned in the video I bet no one gets them all!'

Treasure hunt

A search for information can become a simple game by making it into a race, or a competition. For example: 'Find as many examples of the use of percentages as you can in the newspaper. Let's see which group can find the most!'



(*) Excerpted and adapted from PETTY, G. (2009). *Teaching Today. A Practical Guide*. Stanley Thornes (Publishers) Limited, Cheltenham.

GOOGLE SKETCHUP PROJECT

INTRODUCTION: Jury Report

This Grassroots Project is again a good example of a small-scale teaching initiative in which a lecturer applies a new tool, called Google SketchUp, in his own teaching and learning. It showcases that if we would have started top-down, with the curriculum integration first, followed by the integration in the classroom, it would have been very abstract. Now the lecturer and students get a feel first of what ICT integration means at the level of the learning process.

The jury appreciates the extra time that has been given to train the 15 students using this tool (after school hours!). The motivation and dedication of the lecturer is crucial for experiments as the Grassroots Projects.

Each tool possesses inherent traits that will determine use. The examples drawn by the students themselves indicate they really understood the relevance of this free tool. Of course, understanding the tool is only part of the challenge. We must also understand the nature of the task in which this tool can be used.

This tool is totally free. The jury therefore hopes other institutions can also see the benefit of it.

Tools possess, in themselves, innate attributes for optimal function

Explore More @





NAME: SAMUEL MUBANGA
INSTITUTION: KASAMA COLLEGE OF EDUCATION
EMAIL: *samuelmubanga@gmail.com*

Samuel Mubanga is a senior lecturer at Kasama College of Education. He lectures in a study area called Technology Studies which is an integration of Home economics and Industrial Arts. He worked as a high school teacher of Industrial Arts for 7 years at Kasama Boys High school and got appointed as senior lecturer in July 2003. He has a Diploma and Advanced diploma in Industrial Arts which comprises the following subjects: Metal work and Geometrical/Mechanical drawing.

He was also trained in ICDL (International Computer Driving License) with the help of VVOB which he completed successfully between January and April 2010. He has also done a lot of short courses. Currently he is studying for the degree of Bachelor of Teacher Education (B.T.ED) with University of Zambia.

Case Study on the use of GOOGLE SKETCHUP

Elma Nachilooobe is a second year student at Kasama College of Education. She is from Gwembe Valley, Southern Province. Elma comes from a family of five, four girls and one boy and she happens to be the first born. She is the only one in the family to reach tertiary education, but she is determined to finish with honors. The only challenge in her teaching career was technical drawing which induced fear of not being an effective teacher in creative technology.

The materials in the library about technical drawing seem to be of no help without basic background in the subject.

Therefore, when she heard about a class to help students learn technical drawing by using Google sketchup7, she got very excited. The class focused on those students who did not have the privilege to take the subject in high school. "This is exactly what I need!", she said and could not wait to jump on the band wagon. Since then she's been determined and all her fears of not being an effective teacher in creative technology are now a thing of the past.

What METHODOLOGY was mainly used?

The art of explaining (*)

Students consider explaining skills to be perhaps the teacher's single most important skill. A teacher's subject knowledge alone will not make him or her into a good explainer. But how does one learn to explain?

A good explanation should:

Contain *only* such information as will be sufficient to give a reasoned, logically ordered description of the point being explained.

Be exclusively built on knowledge that the student already possesses.

Be tailored to the intended audience, even if this means missing out what an expert on the subject might call important detail.

Be carried out persuasively and patiently.

Understanding requires that the student knows the 'why' as well as the 'what'.

Some techniques

Start from the student's *existing knowledge and experience*. A new understanding is built on old learning.

Simplify. Only include information vital for understanding the point being explained. Explain new ideas very simple; then fill in the detail. Exceptions and oddities can be mentioned later.

Avoid unnecessary *complexity*.

Focus. A student struggling with a new idea often has difficulty in isolating the point you are trying to make from the explanation you are giving in support of it. Summarise your explanation as a key phrase, as a list, or as a chain of reasoning.

We need to impose a *logical structure* on what we want to understand and remember. Good explainers make sure their students have the explanation in a structured form, usually by doing the structuring for them, but alternatively by ensuring the students develop their own structure. Explainers make it clear at all times where they are in the structure; this is called orientation.

Orientation and structuring avoids the explanation becoming incomprehensible. Show structure on the blackboard or OHP, or in the headings in the students' notes.

Learners feel a strong need for concrete examples (and non-examples) of abstract ideas. They like to move from the particular to the general.

For learners of all ages, the ideal introduction to an abstract idea is often through concrete, specific examples from their own experience, with an abstract explanation to summarise. *Good explainers use both abstract and concrete explanations.*

Concrete explanations are easily assimilated. It makes the meaning of abstract phrases clear. *Abstract explanations* are concise, accurate and widely applicable.

Definitions are abstract explanations, using abstract concepts. If the concept being explained is 'difficult', the learner will usually feel such an explanation is vague, or completely meaningless. Definitions are often an end point rather than a starting point for the teacher.

Some general advice

Try to hear what you are saying through your students' ears.

Use simple language in short sentences, explaining all you jargon.

Watch out for body-language clues indicating 'lost' students.

Try to devise more than one way of explaining difficult ideas, and don't forget that explanations are never enough in themselves.

Students must *use* the concepts or ideas being taught before they will really understand them.

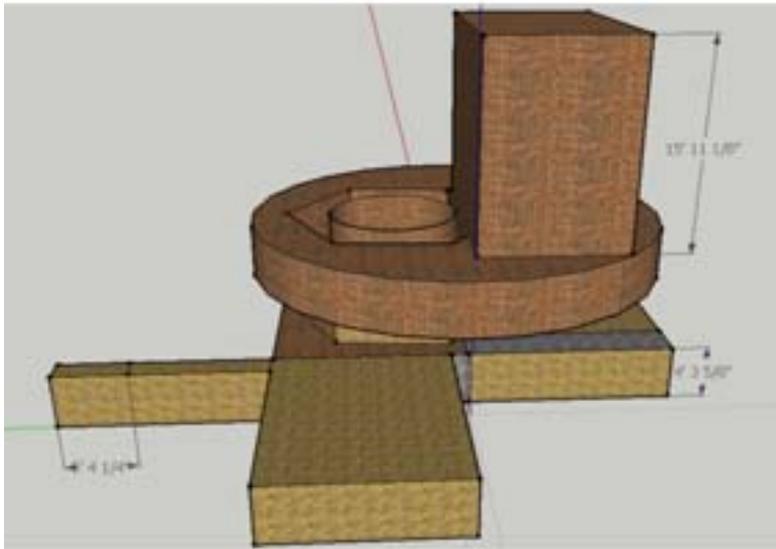
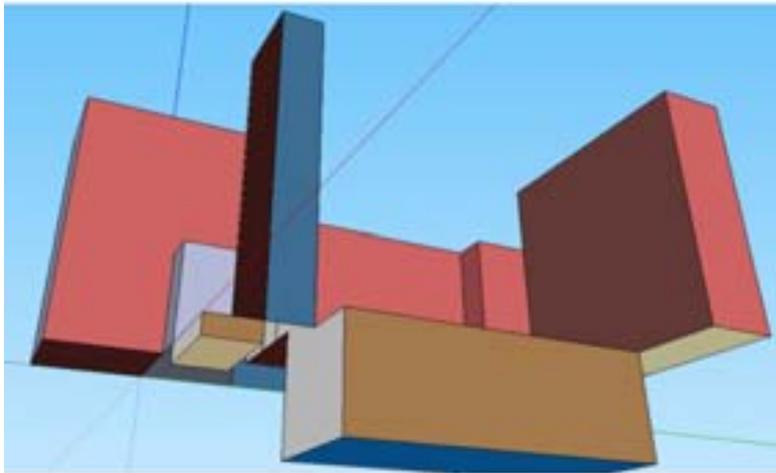
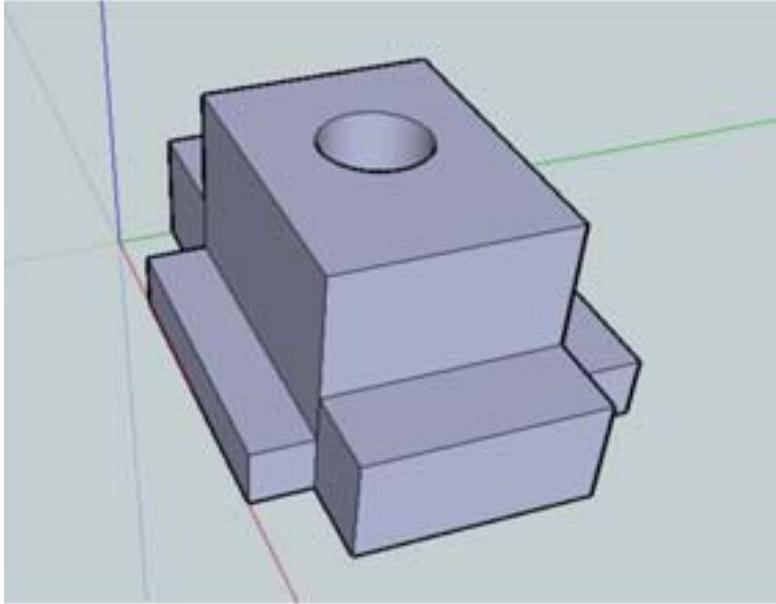
Don't go on too long.

Giving summaries

Summaries help to consolidate learning by giving an overview of the main ideas and their structure.

(* *Excerpted and adapted from PETTY, G. (2009). **Teaching Today. A Practical Guide**. Stanley Thornes (Publishers) Limited, Cheltenham.*

Gadgets and Tools



- TAB 1 FROM GRASSROOTS TO GRASSHOPPERS**
- TAB 2 FIND, SEARCH & COLLABORATE**
VVOB Mentor: Leonie Meijerink
- TAB 3 GADGETS AND TOOLS**
Pier Goudappel
- TAB 4 HANDS ON ICT**
VVOB Mentors: Andre Irabishohoje and Lukonga Lindunda
- TAB 5 AUDIO, VISUAL & VIDEO LEARNING**
VVOB Mentor: Bart Cornille
- TAB 6 LANGUAGE & MATHS**
VVOB Mentors: Lieve Leroy and Hans Casier
- TAB 7 35 TOOLS FOR GRASSHOPPERS**
- TAB 8 eLESSON PLANS BY AND FOR GRASSHOPPERS**
- TAB 8 DUPLICABILITY OF THE GRASSROOTS PROJECT**



VVOB?



**Oh, that stands for Very
Very Organised Business**