1. Title

*Give your report an informative title and mention the discipline/diploma/module you are putting online.*

Sanjuka’s Online IT Help Desk Explained - Computer Skills and an IT Resource Centre! Discipline - End User Computer Skills Training

2. Context

*Which current international and/or local trends are a trigger for your investigation?*

My IT work experience gave me the idea of the type of online classroom to develop. I identified a need for computer skills training amongst Durban University of Technology (DUT) staff members. By creating an online IT classroom, staff will have access to a wealth of computer training 24/7. Staff will be given the opportunity to practice online computer tutorials. This concept originated on one of my very busy days - I was being inundated with requests for IT support. I thought of how I could simplify my work, avoid repetition and redundancy thus freeing up valuable time to focus on IT planning and long term decision making, visions etc.

DUT staff members possess varying degrees of computer skill. My classroom will cater to the needs of novice, intermediate and skilled computer users. E.g. Novice users can learn how to change their screensavers and even progress onto learning how to install local printers connected to their PC’s. Expert users can find links to important software updates and learn certain intricate features of programs that are used daily. Future
plans will be to include an intensive technical section for faculty lab technicians who support e-learning labs.

Further to that, I am trying to address the need for a one stop shop whereby DUT staff members can access much needed IT resources, and other DUT relevant documentation. E.g. soft copies of DUT forms, letterheads, telephone guides, supplier contact lists, referencing guides etc. and that too, from anywhere in the world, 24/7. Employee development is an increasing focus of firms that are seeking to strategically sustain a competitive edge.

Helping workers polish their computer skills is one of the many things companies could do to enhance their competitive advantage.

Brown (2009), shares the following points on training staff to be as productive as possible with the IT software they use -

1) Actively training staff on the software your office uses will dramatically improve their performance.
2) Training includes learning keyboard shortcuts, multiple ways to do the same task, and exposing new parts of the program they never knew existed.

Traditional classrooms are now making way for virtual universities that provide immediate knowledge. Instead of having purely lecturer-led classes, programs are now relying on Intranet and Internet education.
According to Motti (2003), online learning will become standard operating procedure in the next few years. Motti believes that these radical efforts to incorporate distance learning as a training tool for the current workforce reflect the tight labour market in which technical skills are in short supply.

3. Challenges

*Which challenges and/or opportunities exist in your own teaching environment which you could possibly address through web-based learning?*

**Challenges**

DUT is a multi-site institution - staff are spread over five campuses in Durban and Pietermaritzburg. Time and Finances - there is a lack of it - Staff cannot afford to leave their workstations to attend costly and time consuming training outside the company. Kruse (n.d.), points out that Web Based learning will allow for easy delivery of training to users.

Web based training allows training efforts to reach a geographically diverse and highly mobile workforce (Garger, 1999). In addition, the cost savings with distance learning are obvious and significant. Travel expenses and time away from the office are eliminated, as are program development costs, since the courses are normally already developed. Distance learning materials help learners review, acquire, and get up to speed much more quickly than traditional instructor-led training. The learners are able to go through the training on their own time, which encourages them to maintain or even enhance productivity (Garger, 1999).

It costs less to bring a new employee "up to full-scale functioning in a job" online (Garvey, 2000). The process is quicker to schedule and complete since Web-based training can be immediately accessed from a variety of locations, even globally. Many employees concluded that using the Internet to deliver their employee development programs provide certain benefits, such as costs and time advantages, over traditional in-house classroom-based training. Computer/Web-based training can cost about half as much as conventional classroom courses due to the benefits of globally dispersed training with no seating restrictions, time constraints, or travel costs.
However, experts feel that both human and technological factors should be weighed before a company goes full-force into a Web-based training program.

**Opportunities**

Almost all DUT staff members have access to PC’s and have access to the Internet. This is an opportunity and should be taken full advantage of.

There appears to be a growing level of acceptance of embracing new technology by many staff members. Staff must be encouraged to explore the options of electronic learning. They must be allowed to test the systems and if they enjoy the new experience and find the exercises fruitful, they must be allowed to decide if they wish to adopt the system and reap the benefits.

Online systems will allow for easier and more efficient updating of content, e.g. lab timetables which can be made available to all staff, especially the part-time staff.

Kilby (2009) suggests that web based teaching will allow for opportunities for group training (asynchronous and synchronous) as well as individual training.

However, it must be noted that bandwidth/browser limitations may restrict instructional methodologies. Limited bandwidth means slower connection speeds, with not much room for sound, video and intense graphics. Technically orientated staff will be needed to provide server access and support.

4. **Theory**

*Which educational theories seem most relevant to your investigation? Briefly describe each theory’s key characteristics.*

*(Some examples are learning styles; blended learning; motivation; authentic learning; online assessment; online facilitation.)*
**Learning styles** are different approaches or ways of learning

(Overview of Learning Styles, 2007) lists the various learning styles as:

- Visual (spatial), whereby one prefers using pictures, images and spatial understanding.
- Aural (auditory-musical) is when one prefers using sound and music.
- Verbal (linguistic) where the use of words is preferred, both in speech and writing.
- Physical (kinesthetic) whereby one prefers using one’s body, hands and sense of touch.
- Logical (mathematical) learners prefer to use logic, reasoning and systems.
- Social (interpersonal) learners prefer to study in groups or with other people.
- Solitary (intrapersonal) is when learners prefer to work alone and use self-study.

My online class will make use of graphics to appeal to visual learners. E.g. pictures of computer hardware. Some users prefer the ‘show’, rather than ‘tell’ approach. Kinesthetic learners will have the opportunity to engage with Flash\(^1\) technology which I plan to incorporate into my classroom. Verbal learners can make use of the chat and discussion feature. My web based classroom will also include video and sound clips.

**Blended Learning**

Wikipedia defines blended learning as learning that is facilitated by the effective combination of different modes of delivery, models of teaching and styles of learning.

Bersin and associates suggest that blended Learning solves the problem of speed, scale, and impact - and leverages e-learning where it’s most appropriate, without forcing e-learning into places it does not fit.

\(^1\)Flash  Flash is animation software for web pages
Until recently, Web-based training programs focused heavily on IT-related subjects, including spreadsheet or work-processing skills. There now are online training tools to incorporate the people skills and allow employees to be put into interpersonal situations through role-playing. Web-based training should be considered “one of an assortment of tools in the training toolbox” (Garvey, 2000). Blended learning allows for many different learning tools to be utilised.

Motivation

“Motivation is the key to performance improvement” (Employee Motivation, the Organizational Environment and Productivity, 2008)

Employee motivation is very relevant to my investigation. Employees must be motivated, meaning they must have the ambition, desire, drive, be inspired, to produce good quality work. DUT staff will have to be motivated. If rewards are promised, this will create eager and productive people. If they wish to produce outstanding work, they need to be equipped with skills. One of the important skills to have is to be a competent computer user. This factor will impel staff to learn from my online classroom.

Authentic Learning


It is essentially learning by doing as it makes the learning experience real and more applicable. Online classrooms make this a possibility.

Online Assessment -

According to Wikipedia, online assessment is “defined as the process used to measure certain aspects of information for a set purpose where the assessment is delivered via a
computer connected to a network. Most often the assessment is some type of educational test. Different types of online assessments contain elements of one or more of the following components, depending on the assessment's purpose: formative, diagnostic, or summative.”

Computer-based assessment not only automates routine tasks like marking multiple-choice questions, but can enrich student’s learning experiences (Brown, Race and Bull, 1999).

My computer skills online classroom will have assessments built in - staff can test their progress from any location, at any time they feel they ready. I will be able to provide instant feedback (automated most of the time). When staff successfully complete modules of the training course, they will be assessed and certified.

**Online Facilitation**

Online facilitation can be described as managing of the learners and the learning through an online medium.

There are many necessary conditions for successful online tutoring, which have been categorized into the following four areas (Berge, 1995) -

1. **Pedagogical** (intellectual; task) - The facilitator must use questions and probe for student responses that focus discussions on critical concepts, principles and skills. Content of my online classroom must be relevant and must include critical IT issues.
2. **Social** - Online learning environment must be friendly. I am aiming for a personalised online IT Help Desk.
3. **Managerial** (organizational; procedural; administrative) Online interactions must be managed with strong leadership and direction. There must be structure. I will have to include a study guide with timelines so that the subject material and learning areas are structured and spaced out carefully.
4. **Technical** - I have to work towards ensuring that all the participants of my online classroom become comfortable with the learning system, the hardware and the
software. When they overcome the technical barriers, they can purely concentrate on learning.

5. Methodology

What is action research and how have you used the methodology’s structure for your investigation?

“Action research is a reflective process of progressive problem solving led by individuals working with others in teams or as part of a “community of practice” to improve the way they address issues and solve problems. Action research can also be undertaken by larger organizations or institutions, assisted or guided by professional researchers, with the aim of improving their strategies, practices, and knowledge of the environments within which they practice. As designers and stakeholders, researchers work with others to propose a new course of action to help their community improve its work practices” (Wikipedia.org)

According to O’Brien(2001), the term action research is used synonymously with other terms like participatory research, collaborative inquiry, emancipatory research, action learning, and contextual action research. Action research if described in the same article as ‘learning by doing’ and as such involves a degree of reflection and collaboration.

Essentially action research is a cyclic process that aims at improving through continuous reflection.

Image 2 - Steps in Participatory Action Research (2003)
“Essentially Participatory Action Research (PAR) is research which involves all relevant parties in actively examining together current action (which they experience as problematic) in order to change and improve it.” (Wadsworth, 1998)

As per the steps in participatory action research outlined above, I observed that DUT staff was in need of computer training. Planning resulted in an action of developing this online classroom. I tested my project on the users. I then reflected after the valuable feedback received. I am now on the path of planning again, making changes as per user needs and wants. I will then implement the adapted intervention, reflect again, and on goes the continuous cycle of participatory action research.

6. Design

6.1 The vision

*What is the vision for your online classroom in the long term?*

Computer Skills training online will very beneficial to our organization. Staff will hopefully become more motivated and productive if they are equipped with the skills they need to process better spreadsheets and good quality presentations etc. In-house training will save the institution thousands of rands! The value of training is difficult to measure.

I am aspiring for my online classroom to be regarded as one that brings together timely and relevant IT knowledge and information. It will be known to provide quick and easy access to up to date computer training, IT news, useful websites and practice all in one place.

Training time for staff will be formally scheduled. Employees can have all the resources available, but if they are too busy to utilise them, nothing will be gained.

Staff must be committed to spending time away from their normal work so that they can get trained. Employees must be given the time it will take to go through the online material.

Employees will be able to do their training right at their desk. The formal online training components should be taken seriously, and not "whenever employees have the time."
It is imperative that staff train with a goal in mind. Every training program needs a goal, and I can't think of a better one than certification. Employees should be awarded certification once they have been successfully trained online. Perhaps staff could receive credits for achieving certain levels, or ‘kudos’ when they clock up a certain amount of hours training online. Some employees will learn better than others during training, but certification is tangible evidence that each employee has reached a certain level of computer skill, higher than what they began the course with.

Both short and long term goals must be created to guide the action process and create an overall philosophy. Encouraging staff to reach certification is a great goal. Importance of employee development cannot be stressed enough!

6.2 Active learning

*How will the online course encourage interaction/ collaboration/ engagement/ participation/ active learning?*

**Active learning** is an umbrella term that refers to several models of instruction that focus the responsibility of learning on learners. Bonwell and Eison (1991) popularized this approach to instruction.

It has been suggested that students who actively engage with the material are more likely to recall information (Bruner, 1961),

My endeavour of an online IT classroom will hopefully create a community of practice, where fellow DUT staff members can contribute to the knowledge base and share ideas, tools, and tricks of the IT trade.

DUT staff members can use the online classroom to create a shared understanding of common IT issues. This will be a safe and trusted environment where innovation can take place. Colleagues can share and develop expert knowledge and thinking. This online classroom will support creative and experimental IT discipline cross boundary working. This classroom will increase the opportunity for self-help and personal development. Staff can collaborate to increase productivity of ideas and knowledge.
Overall I believe my online classroom will connect people, building trust amongst users. There will be an increase in exchange on lessons learnt and good practice. Staff will seek new understandings of general IT implementations etc.

The Wikipedia website explains androgogy as, “Learning strategies focused on adults. It is often interpreted as the process of engaging adult learners in the structure of the learning experience.” The Knowles’ theory states, “Adults are most interested in learning subjects that have immediate relevance to their job or personal life.”

I believe that the subject matter of this online classroom has immediate relevance to the day to day functions of DUT staff member’s jobs. Thus employees will actively engage.

6.3 Working smart

*How will you use this mode of teaching and/or the Learning Management System’s capabilities to make your life easier?*

I am not trying to recreate the wheel as every software application has its own built in help tools, but I am trying to assist my fellow colleagues in an easier, more user friendly, personalized way. I am creating a ‘safe’, trusted environment to render IT assistance, share and disseminate good ideas. Staff will have the assurance that a real person and fellow colleague is behind the scenes of the online help system.

Staff can learn at their own pace from the comfort of their own workstations. This will also free up time for me as the frequency of staff members consulting me on a face to face basis will be reduced. I will not be inundated with requests for timetabling info - The Open Access Lab is a dynamic environment, with the timetable changing often. I will now be able to disseminate up to date timetabling information to lecturers easily.

Kruse, (n.d) states that with Web-based training (WBT), content is easily updated. Kruse believes that this is perhaps the single biggest benefit to WBT. In today’s fast-paced business environment, training programs frequently change. With CD-ROM and other forms of training, the media must be reduplicated and distributed again to all the users.
With WBT it is a simple matter of copying the updated files from a local developer’s computer onto the server-computer. The next time users connect to the Web page for training, they will automatically have the latest version.

By publishing frequently asked questions online, repetition and redundancy will be avoided. All queries can be answered once. Creating self-help functions will empower users. Everyone will have the opportunity to contribute to building of the knowledge base. They in turn can extract knowledge from the online classroom. A forum will be created to support requests for help and assistance.

I am aiming to provide instant access to knowledge and information in an organised and intuitive way. Staff can access collective and vetted knowledge that is managed, summarised and up to date.

6.4 Blended learning

*How will “the blend” work? Consider how you could keep the best of both worlds, combining paper with electronic resources, and face to face interaction with online activities. (Don’t throw out the baby with the bathwater…)*

According to Wikipedia, Blended Learning is a blending of different learning methods, techniques and resources and applying them in an interactively meaningful learning environment. Learners should have easy access to different learning resources in order to apply the knowledge and skills they learn under the supervision and support of the teacher inside and outside the classroom. This approach will combine face-to-face instruction with computer-mediated instruction.

Wikipedia explains that with blended learning, learners can select the best activities to suit their own pace, learning style and level, as well as time and place.

“Learners can be more independent and self-reliant in their own learning. They can also be more able to take decisions, think creatively and critically, investigate and explore as well as solve problems they face in learning and real life. Meanwhile, teachers can be facilitators, supervisors, assessors, organizers and managers of
learning activities, and so should be creative and able to support learners and provide various learning materials in different formats.” (Wikipedia)

Taking into consideration that my classroom will be delivered online, and that the prime target group are not highly skilled computer users, especially when it comes to e-learning, I provided/will provide users with hard copy versions of instructional guides and user manuals. Users felt secure knowing that in event of them not easily coming up to speed with the online component, they had the security of referring to a printed version of ‘what to do’.

*(See Appendix 1 - User Manual - How to log on)*

*(See Appendix 2 - User Manual - Detailed)*

7. Implementation

7.1 Pilot activity

*Describe the pilot activity you have tried out with one or two users (or your real students…not compulsory, but first prize!)*

To date, I have tested my online classroom to at least seven DUT staff members, all with varying degrees of familiarity with computers and online learning management systems.

I assisted two of the staff members via the telephone -guiding them through the ‘log on’ and ‘change password’ stages and then guided them through the classroom remotely. I had face to face interactions with the other five staff members and I guided them through the classroom in detail, exploring the classroom and explaining and demonstrating the various functionalities in detail. (I also provided these users with the hard copy manual to guide them).
7.2 Relevance

What is the relevance between this activity and the challenges and opportunities you have identified?

During the pilot activity, I found the opportunities and threats identified very relevant. Staff members who were located on a campus other than the one I was based on were assisted telephonically by me. I specifically chose these remote staff members as they were already familiar with Webct6 as I anticipated that assisting them over the telephone would be easy.

It was difficult to find slots when staff members and I were available at the same time. I had to rush through sessions with at least four of the seven ‘students’ tested. Time constraints were an issue.

7.3 Feedback

What feedback did you receive from users?

Many commented on the warm and personalised homepage, found it to be “nice” and “welcoming”. I received WOW responses when I demonstrated the online tutorials and users affirmed that they are in much need of training. They felt relieved to know that important DUT forms etc will now be easily accessible to them from one location. A part time lecturer found it useful that she will now be able to access the e lab timetable from home. I received suggestions to add in Typing programs, library journals reference codes etc.

I asked my users to complete a questionnaire that evaluated my online classroom.

(See Appendix 3- Questionnaire - Evaluating the course)
8. Reflection

8.1 Assumptions

*Which assumptions did you make and what did you learn from your assumptions after implementing the activity?*

I assumed that staff would easily make time to spend browsing my online classroom. Logging into the system for the first time was far from an effortless experience for some. Staff experienced slow connectivity issues, missing Java updates on their PC’s incompatible browsers etc and their pc’s have to be brought up to speed.

Staff has to be motivated. They should be provided with professional incentives when they up skill themselves. Institutional support is needed for staff to overcome these barriers.

Staff will have to be convinced that making use of the web-based learning environment will be of benefit to them and that it will help them to master the volume of work, instead of placing extra demands on their already very busy schedules.

I assumed that all features of my classroom will be accessible to all users. Some users found it disappointing, even frustrating when they could not access graphics, images, and video clips because of poor equipment. The necessary infrastructure must be available and ready.

8.2 Future adjustments

*In the light of the feedback received and the lessons you have learnt, how will you adjust/adapt/change your activity and/or your classroom during the next action research cycle?*

Appropriate technology and reasonable computer skills are needed to get the best out of web based or online learning.

The role of teachers is to ensure that the learning environment provided takes account of learners’ needs and ensures that they are effectively prepared and supported.
Based on the feedback which I received which was generally positive, I can now concentrate on improved categorization of material in my online course, the design of a more intuitive interface, including more detailed explanations, use of annotations, use of international icons and practising judicious use of external and internal windows and frames.

8.3 Impact

What impact do you envisage this intervention could make, or has made on either or all of the following: you, your learners, the curriculum and the institution?

I feel empowered because I have discovered a way to up skill my fellow colleagues at DUT. The Learning Management System viz. Blackboard is an invaluable tool - it is making it possible for me to reach out to hundreds of employees at DUT. Developing employees will ultimately make positive contributions to DUT organizational performance. A more highly-skilled workforce can accomplish more!

It is interesting to note that technology is making a good impact on society in general. (Shapshak, 2009) reported on a Cape project that uses cell phone messaging technology to counsel drug addicts. “We use technology as a first step in the reconstruction process,” says Marlon Parker. “We’re not saying that technology should replace human contact, but it’s the first step to tap into support. Many people already use the popular MXit, so they merely need to add the contact details of the Parker’s project, and by using this technology, they avoid the stigma attached to seeking counselling.”
8.4 Lessons learnt

What lessons have you learnt overall during the year in which you have become an online facilitator?

Dale (2008) asks the question of how does a facilitator know what his/her community needs at any particular point in time? He answers, “Through continual engagement with community members and regular member surveys.”

I have realised that I will have to continually implement participatory action research.

Online classrooms have been criticised for being impersonal. However, I have noticed that they actually strengthen human networks and improve employee relations. Innovative practices are now being developed at a more rapid rate.

Members take the initiative to help each other to solve day-to-day issues. This is positive.

Adequate infrastructure (more PC’s, more bandwidth, faster internet speeds) will never be enough. If we wait for the infrastructure to be ‘perfect’, we will be left behind. We should rather work around these issues and make the best of what we have.

I am impressed at the eagerness by staff to learn. Most are willing to embrace new technology. The team spirit and knowledge sharing that exists is wonderful.
9. Bibliography

Please use the Harvard referencing method, should you reference any readings. The Mind Map group project should be cited as an unpublished report.


Sanjuka's Computer Skills Classroom & IT Resource Centre

How to log on:

Click on Start, Internet

- Type http://edtech.dut.ac.za

OR

- copy and paste this webpage address directly into your internet address bar

http://edtech.dut.ac.za/webct/logon/30747688001

(this takes you directly into Sanjuka's Computer Skills Classroom & IT Resource Centre)

- then press ENTER
- then click Log In

Type in your username and password - then press OK

You should now be logged into

Sanjuka’s Computer Skills Classroom & IT Resource Centre

Happy Learning!
This is how your **Home Page** will look!

- Both the simple and detailed user guides on how to use this online classroom can be found on this page.
- A link to my contact details also appears on this page.
Learning Modules Section

- This page contains Online Computer Skills Tutorials (including Office 2000 - 2007), a typing tutor program, information on the Open Access Computer lab etc etc)

Your learning begins here!
Assessments Section

- Online assessments will be available so that you can test your knowledge
- After doing this online course, you have the option of being assessed so that you can be certified.
Email

- Send electronic messages to me or your fellow colleagues from this section. Ask questions and reply to others! Share your tools, and tricks of the trade. Or you can just simply benefit from the wealth of information out there.
Media Library

- Here you will find a Glossary (IT terminology defined)
- DUT Resources, copies of official forms, letterhead templates etc
- A Frequently Asked Question section (FAQ’s)
Web Links

- Useful website addresses are provided here
Appendix 3 - Evaluation Survey

Evaluation Survey

Sanjuka’s Computer Skills Classroom & IT Resource Centre

1. Your name ____________________________________________ (optional)

2. Was the pre-course manual/correspondence adequate?
   - [ ] Yes
   - [ ] No

3. How would you describe logging into the course?
   - [ ] Very Easy
   - [ ] Easy
   - [ ] Fair
   - [ ] Difficult
   - [ ] Very Difficult

4. Which part of the course did you find particularly useful?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

5. Which part of the course did you find least useful?
6. What else would you have liked to see included in the course?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

7. Any further suggestions for improvement?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

Thank you for your time!

(Survey questions adapted from A Course Leaders Guide to Facilitating Online)