

# Online teaching and learning – crossing the final barrier

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## Abstract/Summary

The purposes of teaching and learning have not changed over the ages but the methodologies have. The demand and need for education increased to such an extent that it was no longer economical or practical to continue with some of the very successful methodologies. The Socratic and “next to Nellie” methodologies were all about communication. The changes that took place over the years squeezed communication into a dark corner. Despite the changes in methodologies communication remains vitally important.

The digital age brought a variety of solutions to the educator and learner. Theoretically these should have increased the frequency of communication in education. E-learning tools were offered as if it was the solution that will bring the magic back to education. It didn't bring back the magic and sadly there was even less communication. Several educators can bare witness to the fact that despite of all the marvels the digital age brought to the educational arena, communication among participants was still strained. The solutions exist but the question remains: How does one get the students, and lecturers to use it?

At TSA the lack of communication was also a problem and it concerned the custodians of the Virtual Campus. The question we had to answer was: How does one get the learners and tutors to participate? We developed a methodology called FOCUS. During the WWW conference in 2001 this methodology was presented and tested at a half-day workshop.

This paper will introduce the problem by highlighting the role of the discussion forum in teaching and learning. Different technologies will be discussed briefly and some thought will be given to the different needs that traditional and distance education institutions have pertaining to technology. The paper will then introduce the FOCUS methodology that can be used to establish and maintain communication between learners and lecturers. We will also share a few thoughts regarding the implementation model for FOCUS at institutions that wish to improve communication among learners and academics.

## Purpose of presentation

To share practical experience with the audience about the critical success factors we find that initiate, maintain and improve the communication between learners and teachers/tutors for the purpose of collaborative learning when using online discussion forums.

## Introduction

Education and Training is multi faceted and dynamic. At all levels the role players have to cope with constant changes. Examples of some of the complex changes educators face in SA are the merging of Tertiary institutions, adherence to guidelines from NQF and SAQA, and different and expanding needs in the country for qualified workers.

We must realize that Education and Training has come a long way since the apprentice sat next to the master, observing and learning on a one-on-one basis. Student numbers have increased and the academic is no longer responsible for a mere handful of students that he/she can educate and nurture.

Internal and external factors impact on education and complicate the task of the trainer or educator. It is almost as if one was asking a mechanic to change a wheel on a vehicle while it is speeding at 120Km/h.

In this complex educational environment several stakeholders are searching for solutions to the variety of challenges that face them. The Integrated Technology Center (ITC) focuses on finding ways to improve teaching and learning by means of Technology. Although the staff members of the ITC are passionate about the way technology can be used to solve problems we are also strong supporters of quality training and instruction. In the media one finds opposing viewpoints regarding media support in education. Clarke (1994) states that the media does not influence learning. Kozma (1994) however, believes that media may assist or distract from the learning task at hand. The ITC believes these two opposing positions lose sight of the crucial issue namely: "What constitutes **effective** learning and instruction and has it, or will it take place?" This question should be asked during all phases of instructional design and during the whole process of instruction. I believe part of the answer lies in good communication.

Communication is an important component of the instructional setting. Although this paper doesn't focus on the complexity of communication it is essential that any media that is used in the instructional environment enhance communication with the learner. In a technology rich environment, such as the Distance Education (DE) environment communication relies strongly on the use of Bulletin Boards or Discussion Forums. The main challenge is to get lecturers and students to use the facilities that are available.

At TSA this was also identified as a problem and it concerned the ITC, the custodians of the Virtual Campus. The question that was asked was how one gets the learners, lecturers and tutors to participate in online communication. In response Deon van der Merwe, the director of the ITC, has developed a methodology called FOCUS.

## **The purpose of discussion forums in teaching and learning**

The introduction highlighted the importance of effective communication during the learning process. All the resources communicate with the learners but in the end the learners need to communicate their understanding of the material to the instructor in some way. For too long rote learning dominated in situations where the teacher was considered the provider of information and the learner the recipient. This caused a serious break in communication and caused massive deterioration in the learning/teaching process. Educators increasingly realize the importance of communication. It is important for students to familiarize themselves with the content, concepts, definitions and "lingo" of a specific subject area. By applying knowledge and speaking in the "lingo" of the subject, using concepts and definitions to form own opinions and explanations the learner has a better chance to master the subject than when learning by means of meaningless repetition.

Communication among students, lecturers and content is an interactive process. Failure to include interaction reduces the computer's instructional capability to the level of the printed page (Gery, 1988). The ITC calls it paper under glass. Interactivity is more than just responses to questions and clicking of the mouse to turn the page. Students must communicate.

The distance in Distance Education makes proper two-way communication between students and lecturers difficult. This however is not only a problem for the DE student but also the residential student who will disappear in the crowd in the class.

Distance Education students have a need to feel as if they belong. Not only must students get their minds and "tongue" around the content they also need to belong. They have a need to share experiences. Companionship is extremely important. Distance students have a big need for this compared to Residential students who have a slight advantage. Often residential students still feel isolated because they might not be willing to speak publicly in the classroom. The virtual environment protects students and they can contribute to discussions feeling less exposed.

## Technology choices

Without discussing all the technical requirements of discussion groups or bulletin boards it is important to note that one must distinguish between Synchronous and Asynchronous methodologies. Virtual Campus environments normally include the facility for creating discussion groups but sometimes lecturers and students create discussion rooms using freeware, shareware or services offered by groups (ISP Internet Service Providers) like Yahoo.

The terms Synchronous and Asynchronous refer to the time dimension. Synchronous refers to any communication that takes places in real time. Asynchronous implies that there is a specific time delay between the time the message is sent, received and replied to. By comparing the tools for synchronous and asynchronous communications one gets a very good feel of what it entails.

Synchronous	Asynchronous
Classroom	E-mail
Voice over IP	List servers
IRC chat	Snail mail
Video conference	Discussion groups
Audio conference	
Telephone	
Net meeting	

Vigorous debate between staunch defenders of both methods of communication in the e-learning environment has been seen on the net and in public forums. Note from the table that synchronous do not only refer to face-to-face instruction. Face-to-face is typically synchronous but also have moments of asynchronous communication. If students do an assignment and they only receive feedback two weeks later it is asynchronous and yet it is happening to students in a traditional face-to-face mode of instruction.

Similarly the student sitting in your class facing you might only hear you now and then and has to consult his buddies' notes to know what happened in the class – by definition this is asynchronous. At this point I'm not trying to build a case for asynchronous communication but it is important to recognise that both methods do have pros and cons as tabled below. The art lies in using the strengths of each and identifying the weaknesses and finding alternatives when required.

Synchronous		Asynchronous	
Pros	Cons	Pros	Cons
Learn to think under pressure	Students do not have time to formulate answers – slower students suffer	Time to think and formulate properly.	Too much time and not pressurized thinking. Help is available from an expert to assist the learner.
Can often see the body language. Except on the telephone			No emotions unless emoticons are used
Could get immediate answers to questions		Discussions can be really fruitful	Technology could be a stumbling block. Lack of computer literacy might be a barrier.
Not enough time to attend to all the students that might wish to ask a question in a big class.	Might benefit from another student's input or question	Record of discussions is kept. Can be referred to later.	Some of the methods are impractical e.g. letters.
		Join discussions when you are right and ready. The threads will assist you to catch up and therefore no learning opportunity is lost.	Can get out of hand because the messenger is removed from the message. People can sometimes be harsh when they communicate on paper or electronically.
		Well suited to the adult learner.	Participation
		Third party involvement/moderation	

## **FOCUS - Theory**

From the above it is clear that the ITC believes strongly in the power of discussion forums as an element of Virtual Campus infrastructure. The question the ITC grappled with is: How do we assist academic staff members to participate. It does mean lots of work and if one doesn't know where to start that is often what will happen: nothing.

Asynchronous Online Group Classes or Discussion Forums bring with it something not previously attainable with conventional distance education media, namely: easily accessible bi-directional teacher-to-learner and learner-to-learner interaction in an environment similar to a group class. It is therefore important to apply this technology in such way as to make the most of the strengths listed above.

The following are a few ideas that could be used as broad guidelines in formulating a strategy for asynchronous online teaching.

It seems that the secret to successful online teaching lies with clearly set objectives, outcomes, fixed timelines and deliberate teacher guidance. It is imperative that learners are focused from the beginning - that they are aware of the desired outcomes of the lesson, the role of the facilitator and the duration of the class (whether it is a couple day, weeks or months). A final or closing date must be set so that learners (and teacher) can pace themselves. Although there might be unstructured components included in the learning process, the individual learner must stay focused and never lose sight of the overall outcomes of the learning experience.

The word "Focus" provides a good acronym to describe the basic components of an asynchronous online class session.

The acronym "FOCUS" stands for:

- F** - Friendly
- O** - Outcomes or Objectives
- C** - Content
- U** - Unstructured
- S** - Structured

### **F - Friendly**

The first letter "F" in "FOCUS" might be the most important of them all. A friendly, informal introduction will indicate to the learner that the teacher is approachable and will greatly improve the following discourse. Friendly does not only refer to the disposition of the teacher but also to the "user friendliness" of the written dialogue i.e. it must be written in a simple clear manner that is easily understood. After the teacher has introduced herself/himself, learners could be given an opportunity to present themselves to their peers (the latter is not recommended for large groups).

The discussion topic must be original, enticing and thought provoking. The teacher needs to spend some time researching the topic and present it in such a manner as to provoke discussion (or ideally emotion, both positive and/or negative). A good way of doing this is by connecting the information to be conveyed to the learner with a current event. For example a class in forensic police work may like to discuss the collapse of the shopping malls in Pretoria as it has happened a few weeks ago. Any other news related issue that happened and should be discussed by students because of the relation to their field of study. Comparative studies can also be a rich learning experience for example, connecting an important figure in ancient history with a similar figure in modern history, e.g. Mendel's discovery of genes with the human genome project and the controversy surrounding cloning, or the application of human psychology theories on a current hostage negotiation drama or AIDS counselling, etc. The more time spent on this phase, the more successful and exciting the discussions among students and between student and teacher are likely.

## **O - Outcomes**

Outcomes need to be clearly defined and must be attainable. The teacher has to set the stage and define the parameters, **objectives** and **protocols** as early as possible. It need not be done in the introduction, but must be done as soon as possible afterwards. If this is done in an encouraging and assertive way, the learners should immediately know what to expect, what is expected of them and the process to follow. Students must be told that participation is considered highly and that the lack of participation might even lead to disqualification of some sort. Students must see that academic discourse is considered as a learning event and it is on the application of knowledge level.

## **C - Content**

Content, information or resources could be provided by the teacher, or it could be expected from the learner to gather the necessary information. The teacher could therefore decide to provide a reading list, links to relevant sites on the Internet or broad guidelines to what resources should be consulted (Internet, books, journals, newspapers, CDs, videos, TV, people, etc.). The amount of guidance provided will generally be determined by two major factors: The level of the learner, and the duration of the class. Flournoy, Ella, Turner (2001) find that one can also use humour as a strategy to keep the learners' attention. Humour releases tension and lighten the learning activity. It is important that some product or objective is reached by means of the content. It is important that learning must be goal directed. reading.

## **U - Unstructured**

After the scene has been set, the rules have been defined and guidelines regarding the academic content have been provided, a period of relatively unstructured interaction should be allowed. During this period the learners must sort out the group dynamics, role definitions (future roles of individuals in attaining the goals) and process plans (research, consolidation and reporting). The learner should therefore be given opportunity to gather, compare and discuss the information. The role of the teacher during this period is that of mentor and guide. The teacher has to guide the group in the right direction without too much interference (In essence the teacher has to be like a river bank; guiding the water in a specific direction without obstructing or hampering the flow of the water, allowing it to eddy and swirl, yet keeping it within the confines of the bank. If, however, the river cannot be contained and has to flood the banks - let it go - you will be surprised how fertile the ground could become).

The quicker the unstructured phase can be reached during the lifecycle of the group class, the better. The teacher must however make sure that the learners don't get too carried away by the discussions and eventually guide them to wrapping the discussions up and lead them into the final structured phase.

## **S - Structured**

The final part of the class has to be highly structured. During this section the learners must consolidate their findings, analyse it and finally present it as a collaborative report or as individual reports/assignments. These reports should then be evaluated (or graded) by the teacher and/or by peers against the predetermined outcomes and objectives. The session should not be concluded without proper feedback by the evaluator/evaluators and closure must be done in such a way as to encourage learners to participate in future online group classes.

## **The Workshop – feedback**

During the workshop the theory was presented to the attendees and time for discussion was allowed. The ITC however wanted to practice what we preach and did not want to present theory only, - we wanted good learning to take place. We therefore looked for a methodology that will keep the tempo alive and the attendees “focused” all the time, especially on a Friday afternoon.

The attendees had to apply the theory in practice during the workshop and this created a variety of reactions. It was priceless to notice that the demand on them to participate made some of the attendees uneasy. Some would have preferred to sit and listen. This also occurs in a normal classroom situation. Certain people would prefer to be passive recipients of information instead of collaborating to build understanding. Realizing students prefers a passive listening style and gently coaching them to participation is crucial to the success of any teaching and learning.

### **The methodology**

The specific methodology we used was extremely successful and a discussion forum was simulated in a classroom environment. Specific roles were assigned to each participant and a controversial topic was introduced. Time was allowed for participants to discuss the topic. Everyone had fun. The presenters observed the behavior of the participants. After the workshop the inputs of the participants were transcribed and placed on a specially designed website.

### **The results and conclusion**

We believe the methodology that was used to teach a very difficult skill could work exceptionally well to teach academics how to conduct online discussions. The workshop style of presentation that was used really allowed for participants to internalize the theory. We believe that because the theory is so simple people often think it is easy to apply and experience a rude awakening when they try to apply it. The workshop should have been at least one and a half days to ensure that all participants are comfortable with the techniques.

The following statement rings true: After being taught in primary, secondary and tertiary schools for 15 to 16 years even academics with teaching qualifications follow the bad example they have seen during that time and do not do what they have been taught at teachers training college. It is therefore important that we give academics first hand experience of what it feels like to be in a discussion group used for instruction. By means of our workshop they have the opportunity to be different role players and learn how to deal with the variety of scenarios these discussion groups can bring. Being student as well as facilitator and learning from others has brought a wealth of learning to the attendees.

Based on the feedback we received at the workshop and our own experiences we believe that workshops like this will contribute towards academics crossing the final barrier.

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