

## IMPLEMENTING ONLINE LEARNING THE ESSENCE OF GOOD PRACTICE

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### ABSTRACT

*Despite thousands of courses being transferred wholly or partly to an online mode of delivery over the last decade, many institutions continue to get it badly wrong. This paper draws on the literature to highlight some important aspects of online learning implementation from the perspective of those involved. One common thread throughout is the major importance of good communication between all of the parties involved academics, developers, administrators, and students. This paper distils the essence of good practice to present 27 guidelines for those involved in the transfer to online learning, in the hope that some of the more prominent pitfalls and disasters can be avoided.*

### INTRODUCTION

The nature of education at tertiary level is currently undergoing an enormous transformation. Gone are the days when students expected little else but a lecture twice a week and a set text from which to study. Now, more students are expecting indeed demanding that courses be available online, so that they can study at times and from places of their own choosing, without, necessarily, any face-to-face contact with the academics responsible for the course.

In response to these pressures, many universities and colleges worldwide have introduced partial or full online courses: such as the University of Phoenix for working adults who want to further their education, and M.I.T, who have recently placed the majority of their courses online, available to a worldwide audience free of charge.

But along the way there have been many casualties. Institutions have attempted to place their courses online with minimal planning, paying little or no regard to the resources required. Panettieri (2004) stated in relation to online learning that: -

*"... most universities do offer distance learning programs. But many of them don't live up to their hype. In some cases, immature technology is to blame for the online woes. Yet far more often, distance learning initiatives fail because of internal cultural issues across multiple departments--academic, financial, marketing, and so forth."*

Students have become disenchanted with low-quality materials, with outdated links, and with files that take hours to download. Where such online materials have replaced face-to-face lectures, students have become disenchanted with what they perceive as academics 'not doing their job'. Further, the use of email and discussion lists has led to an expectation of help being available 24 hours per day, 7 days per week, which many institutions have been unable or unwilling to provide. How can these and other similar disasters be avoided?

### THE PRACTICE OF ONLINE LEARNING

Allen and Seaman (2003: 9) stated that learning might be defined as online when at least 80% of a course is taught without any face-to-face component. They also defined a classification of different modes of learning:

- a) Traditional or face-to-face, where no online teaching or technology occurs,
- b) Web Facilitated, or minimal online technology usage, where web based technology is used to facilitate the traditional method of teaching,
- c) Blended/Hybrid, or a combination of face-to-face and online with the majority of the teaching learning process being online, where there is a combination of both online technologies and face-to-face traditional methods used, and
- d) Online, via Internet or web based technology, used where there is little or no face-to-face contact.

Although their research was based on a survey of U.S. based educational institutions, it is applicable more widely and highlights the nature of online learning and its increasing maturity in educational terms. Currently many educational institutions run blended or hybrid courses, but few would meet the definition of online as provided here. However, such blended courses help to entrench online learning and teaching within a university or college as it gradually assimilates the students, academics and administrators into the ethos of online learning.

Amongst the many negative constraints that hinder the successful introduction of online courses may be listed inherent bureaucratic conservatism, academic resistance, poor communication, student frustrations, institutional difficulties and substandard course materials.

### **Inherent Bureaucratic Conservatism:**

Students seeking to study online often demand greater flexibility than is currently provided. Thus, institutions seeking to develop flexible learning practices must first overcome the administrative hurdles that are often inherent in their established bureaucracy. The entrenched outlook that may permeate both academic and administrative levels can demonstrate itself in a number of ways: "there are schedules to adhere to an, procedures that must be followed", "it has never been done before", et cetera.

Administrative limitations may be imposed because of a passive indifference or an active fear of any change within an institution's bureaucracy. Consequently, institutions may be beset by an inertia that needs to be overcome.

Essential to the minimization of this climate of apathy, indifference and fear is good communication. If a decision is made to change the current methods of administration and teaching, then a necessary first step is to communicate to all staff the nature of the changes and for management to be open to constructive comments, criticisms and solutions. To impose academic and administrative changes from above without due consultation is an almost guaranteed method for failure and disaster.

Online learning challenges the existing relationships between academics, those who learn and those who administer the learning institution. Marsden (2003) stated it well when she said:

*"Understanding the online education paradigm is more than an academic pursuit. All of those concerned - administrators, course developers, teachers, and students - must embrace the paradigm to realize success."*

Many administrators and academic managers often find the lure of online learning irresistible, because they see this method of teaching and learning as one that does not require physical infrastructure such as buildings for classrooms or space for parking. To their mind, this equates to an unlimited number of students per 'class' and therefore an increase in income (Kearsley, 2002).

In many instances, the administrative bureaucracy may not take into full account the academic or student viewpoints or the resulting timelines and schedule pressures that are thereby placed upon teaching staff. Timeline constraints are often the most difficult to overcome, particularly when a translation of course materials (from face-to-face teaching to online teaching) is required.

It is neither necessary, nor appropriate, to demand that academics who are currently teaching a course face-to-face or via distance education be solely responsible for the development of instructional online materials. In the long term it can be more realistic, sensible and cost efficient to create entirely new courses for the online arena by utilizing instructional designers who can work in cooperation with the existing academics. Academics may be considered the 'knowledge experts', but it is the instructional designers who will provide the expertise in the online learning pedagogy. This is so important that it will be mentioned several times in this paper.

### Minimizing Inherent Bureaucratic Conservatism

1. Recognize timeline and schedule pressures.
2. Involve both administrators and academics in all changes.
3. Provide resources for the development of new courses.
4. Involve instructional designers throughout the process of course development.

Figure 1: *Minimizing Inherent Bureaucratic Conservatism*

### Academic Resistance:

Some academics may feel that a lifetime of teaching skills has been wasted or rendered obsolete in the institutional charge to online education. They may feel unable to use the talents that they most value in teaching their presence in a classroom, their oral ability to control problem situations, and their skills in enhancing the benefits of learning for their students from opportunities that may present themselves whilst in class.

Berge (1998) listed many fears that still have a major impact on academic resistance to online learning. Amongst the most relevant almost a decade later are: -

#### ▶ **"faceless" teaching**

Will the 'facelessness' of online learning mean a loss of control and ability to guide students? This ability is normally

aided by an effective use and understanding of body language by the academic. The answer here is the effective inculcation of good online communication skills.

#### ▶ **diffusion of value traditionally placed on getting a degree**

Will the course or program being taught online be valued as highly by employers as that which is taught classically (face-to-face)? Time, and the continued development and practice of online teaching and learning, and effective quality controls are essential to convey the value of this still reasonably innovative method of learning to prospective employers.

#### ▶ **lack of an adequate time-frame to implement online courses**

Will the academics be given an appropriate time period to develop and test the online courses prior to implementation? This fear can be alleviated by an institutional understanding of the increasing workload of many academics.

#### ▶ **high cost of materials**

Will the online course be too expensive to 'build' or maintain which may lead to a cheapened and therefore inferior product? Effective financial planning is clearly essential.

#### ▶ **increased time required for both online contacts and preparation of materials/activities**

Will more time be spent online with students than would be the case in conventional teaching? The time spent online may be reduced if the academic provides guidelines for students to follow, clearly states times of availability, and utilizes an appropriate discussion forum for questions.

#### ▶ **lack of technological assistance**

Will appropriate assistance be available? This can be a very large obstacle if the concerned institution does not provide technological support for all parties academics, administrators and students.

Many academics may benefit from auditing an online course, prior to a more substantial commitment, to help them to understand the dynamics involved in online teaching and learning. Change is often feared and resisted simply because of a reluctance to admit that they are unprepared to meet the challenge of a new educational environment.

Smith, Ferguson and Caris (2002), stated that online courses are:

*"... a labor-intensive, highly text-based, intellectually challenging forum which elicits deeper thinking on the part of the students, and which presents, for better or worse, more equality between instructor and student."*

It is vitally important that academics should not be intimidated by the perception of a greater equality between themselves and students. This changing role for academics in the online environment has an importance that should not be underestimated.

Once the transition to online teaching and learning occurs, academics may find themselves online in chat rooms and email sessions with students for several hours per week. The responses to questions and assignments will lead towards the creation of an online persona that will reassure students that someone is 'out there' and interested in them and what they produce. The successful creation of an online persona will ease the possibility of an increase in the class attrition rate (Smith, Ferguson & Caris, 2002: 65).

It is important that those academics who do decide to teach online enjoy using technology, or they may find that the environment of online learning is far more demanding than they have been led to expect. Kearsley (2002) plainly states his view that *'many teachers who are excellent at classroom teaching will not make good online teachers.'*

## Minimizing Academic Resistance

5. Ensure academics are fully conversant with potential problems.
6. Provide resources to ensure academics can acquire the skills needed for online teaching.
7. Provide the ability for academics new to online learning to audit or assist with an online course.

Figure 2: *Minimizing Academic Resistance*

## Poor Communication:

The effectiveness of online learning can often be severely constrained by poor communication between academics and students. Essential to effective online communication is that appropriate technology be affordable and available to students, and that courses be designed with this understanding. Another aspect that may lead to poor communication is the constraint of time for the academic or tutor monitoring several hundred emails and many chat rooms, particularly if these are the primary means of communication.

Wang and Newlin (2001) advocated the simultaneous use of asynchronous and synchronous communication for an online course to be successful:

*"... the type of interaction fostered by online chat rooms will enhance and clarify the information that is gathered via asynchronous interactions. Both types of information delivery systems are needed."*

They asserted that asynchronous online courses often have a one-way flow of information between the lecturer and student, and are a passive method of teaching, which simply turns the Internet based online course into another form of distance education. By utilizing synchronous chat rooms, or a system such as Blackboard, a sense of social presence develops that often leads to a greater sense of community.

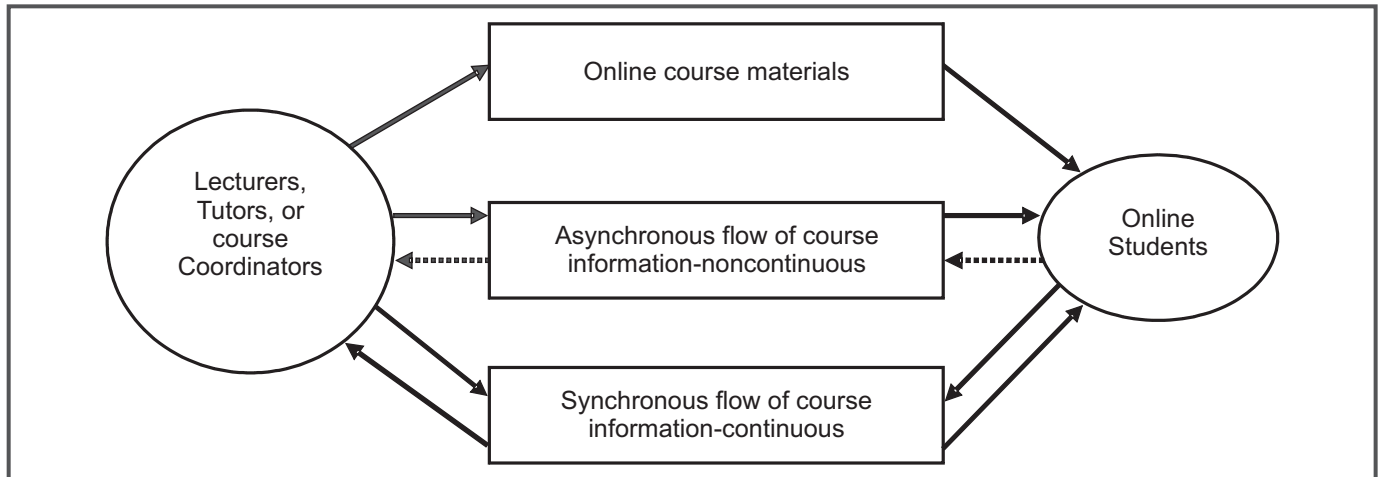


Diagram 1. Information flows for Online Students

Whether the online communication that is occurring is synchronous or asynchronous, one significant advantage resulting from online learning and communication is that the individual competitiveness of the face-to-face classroom is reduced. In an on-campus class, there is usually a strict time limit to each session or tutorial, and this may mean that the less vocal or less self-assured students do not have adequate opportunities to express themselves to either fellow students or academics. Online communication gives those students the time they need to express themselves without the pressures that are often inherent in a face-to-face setting (Bowman, 2003).

Some instructors may lack the communication skills necessary to give advice with clarity and explicitness, especially if they are overworked and frustrated with the problems they are encountering. Finley (2000) succinctly stated a set of 'DO'S AND DONT'S' that go some way towards explaining the complexities of online communication.

- Personalize the environment,
- Encourage introductions introduce yourself,
- Use names when addressing responses to students comment on personal things they have mentioned,
- Use an informal writing style but model correct grammar and spelling-be aware that students cannot see your nonverbal behavior avoid sarcasm,
- Refer to good comments made by other students,
- Be visible in the classroom - you can do this without dominating but students like to know that the instructor is there, and
- Establish clear guidelines for participation in conferences areas give appropriate weight in the grading scheme to participation emphasize that what happens in the classroom is private.

Lewis [2000] asserted that it is important that academics master the art of communicating online in both asynchronous and synchronous format.

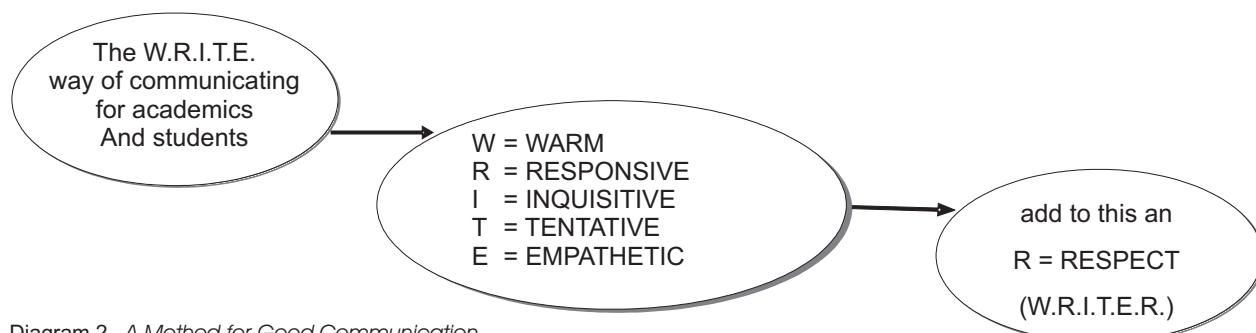


Diagram 2. A Method for Good Communication.

Good communication skills are of paramount importance in an online environment. If academics are not appropriately prepared, little can be done to salvage an essential component of the course, and this is likely to lead to low student morale, thereby compounding the problem.

Although no one style of education is going to be successful for all students, it is important that educational bodies and academics appreciate that effective support may be given to distant online learners by the implementation of, and adherence to, appropriate communication protocols.

**Minimizing Poor Communication**

8. Consider the use of synchronous communication where possible.
9. Ensure instructors have the appropriate communication skills.
10. Use a system such as W.R.I.T.E. (Lewis, 2000) as a basis for good communication
11. Stress the importance of all online participants treating each other with Respect.

Figure 3: *Minimizing Poor Communication*

### Student Frustrations:

Cowley et al (2002) provided a profile of 'ideal' online students.

- *Self-disciplined*
- *Mature, experienced*
- *High emotional quotient*
- *Willingness to ask for help (which requires self-awareness and high emotional quotient)*
- *Independent*

In reality, not many students would conform to this ideal. Students are likely to bring a wide range of backgrounds, experiences, and skills to the online environment.

Kearsley (2002) has stated that although online learning is seen by many students as the most flexible manner in

which to study, it is not an ideal forum for all as it requires an enormous amount of self-discipline and initiative on the part of the student. It is also for many an isolating experience as they are more familiar with the face-to-face experience.

Isolation, or the lack of physical interaction, is not always seen as a constraint but as a symptom or side effect of online learning. It is hard for academics to combat this very real problem (Hara & Kling, 2000). Humans are gregarious beings and no matter how mature the student, the feeling of isolation that is often generated by the sheer geographical distance between students, and between students and academics is a very real problem that needs to be addressed before the courses are placed online. Solutions must be deployed to overcome this isolation or many students may elect to leave the course. The research of Wegerif (1998), Palloff and Pratt (1999) and Curry (2000) substantiated that the online medium is often seen as cold, and that student attrition can be high.

Daugherty and Funke (1998) indicated that the issue of isolation is '*an important criterion for student satisfaction*' with a web-based online course. This feeling of isolation is often '*based on the physical separation between student and instructor*' and is one that academics may be able to ameliorate, but are unlikely to ever be able to successfully eradicate. It is however very worthwhile to attempt to minimize this problem.

Cereijo, Young & Wilhelm (2001: 37) confirmed that isolation could be a problem with online learning, particularly if students are extroverts, are visual learners, live near campus, have computer problems or are inexperienced. Despite this, they indicated that for those students who are working, have families, or face socio-economic problems, the concept of online education is a preferred option, as their other commitments may prevent them from attending face-to-face classes.

Students attempting to study online may also become intensely frustrated by online administrative procedures.

Generally, schedules and procedures will have been established so that the administration of the institution can operate smoothly and efficiently. However, changes will be needed if courses are to operate in an online manner. Additional flexibility is often required if online students' needs are to be fully met.

Roberts (2001) proposed a three-by-three grid to classify nine ways in which online courses may be said to be flexible. On the vertical axis are time, place, and mode of study; along the horizontal are administrative procedures, learning, and assessment. Many online courses would currently be worthy of a positive ranking in only perhaps two or three of the nine classifications, indicating that, at least according to this method of classification, true flexibility is still a long way off.

One of the nine classifications is the ability to learn via a variety of modes. Werry (2002) points out that:

***"...students must, of necessity, show a great deal of initiative. They are at the "center" of the system in the sense that they must take charge of their education in a way that traditional students aren't required to.***

***"Findings indicated that online learners took advantage of the learn anytime characteristics of the Internet by accessing the course seven days per week, 24 hours per day."***

Rovai (2001) indicated that students could adapt to, and cope with, the concepts used in online learning far more readily than is commonly acknowledged. Western society is becoming familiar with the use of the Internet, and students are more able to accommodate their study programs around their work and lifestyles. It is therefore up to administrators and academics to ameliorate any problems that exist within their institutions so that students may avail themselves of this form of education with ease. In the twenty-first century, potential students are likely to be more comfortable in the use of the online environment than are academics from previous generations..

What are the principal sources of student frustration? Three in particular seem to occur very regularly throughout the literature. It is worth highlighting them here. Almost all students, but especially those studying online, expect prompt feedback on assignments, do not appreciate

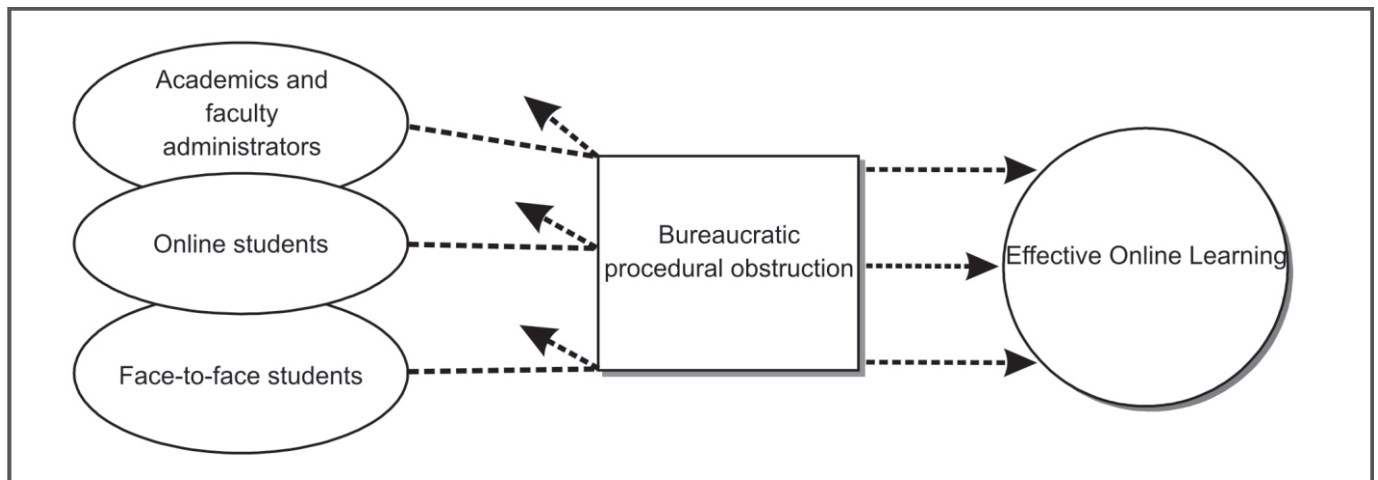


Diagram 3. *Obstruction caused by procedural inflexibility*

***However, it isn't clear that this necessarily empowers students, provides for a better educational experience, or is really in line with constructivist pedagogy".***

As an opposing view, Rovai (2001) said that:

ambiguous instructions from academics, and get frustrated when the institution has 'technical problems' which can make communication problematic (Hara & Kling, 1999).

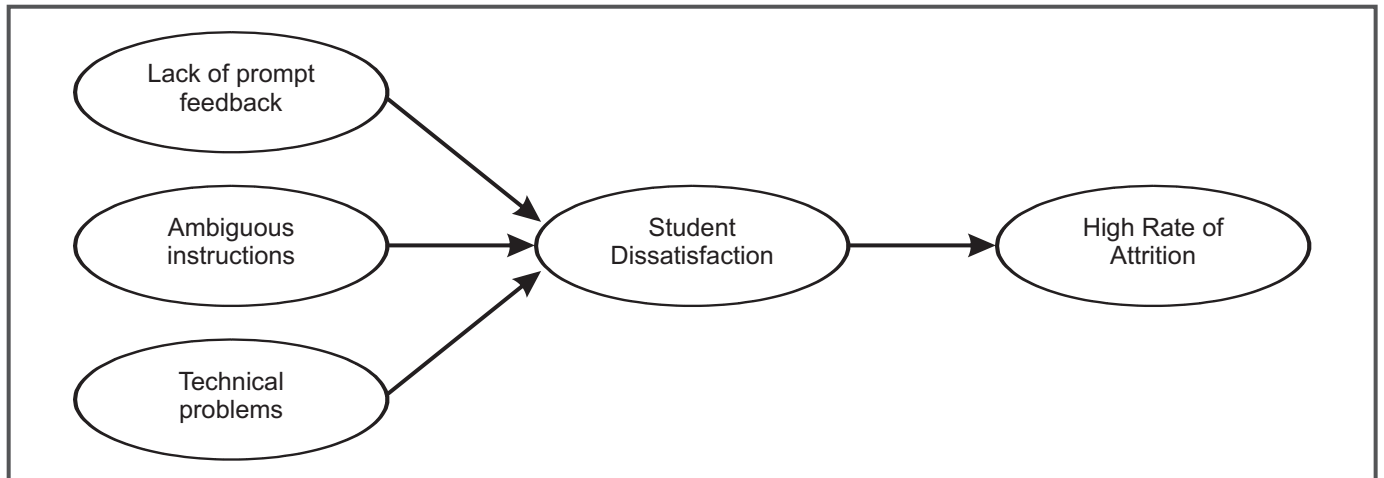


Diagram 4. Typical online problems

In the online environment, students have an increased expectation that they will receive prompt feedback. If assignments are not returned promptly, and with adequate notations by markers, this may well lead to an increase in the students' sense of isolation, contribute to their feelings of frustration, and lead to a repetition of mistakes in follow-up assignments.

Ambiguous instructions can also be a source of major dissatisfaction. If academics do not give clear and precise directions concerning assessment requirements, and then receive incorrect assignments based on those unclear instructions, the students may have justifiable complaints if they are penalized for submitting incorrect work. Clear and unambiguous communication is a key concept that all academics must follow whether in a face-to-face or online course. It is therefore of extreme importance that all academics be instructed in the use of email and chat room styles of communication (see Diagram 2).

Technical problems may present substantial challenges for academics. Students may be left with negative feelings towards online education if course web sites and chat rooms are unable to be accessed due to technical problems. This is often the most difficult of the limitations to

overcome. Institutions should as a matter of priority ensure the provision of well-resourced IT departments able to maintain and upgrade computing facilities and hardware, thereby minimizing the potential for technical problems, as well as providing well-trained and patient help desk staff able to respond promptly to 'cries for help' from students [Kazmer, 2000]. It is essential to recognize that such support may be especially important to online students outside of normal office hours.

Haight (2002) suggested three ways to reduce student frustration with online learning: -

- *Reassure...*  
 ....Students that support is there for them and that any problems they may be having with the technology are common and fixable.
- *Encourage...*  
 ....students who may be having problems with the material, and offer suggestions that will help their understanding, and
- *Orient and Facilitate...*  
 ....students by clarifying expectations of behavior and performance while undertaking online study.



## Minimizing Student Frustrations

12. Ensure that academics are aware of the problem of student isolation
13. Attempt to provide as much flexibility in schedules and procedures as possible.
14. Recognize the importance of prompt feedback
15. Ensure that instructions are unambiguous.
16. Where possible provide a well-resourced, permanently available Help Desk facility.

Figure 4: *Minimizing Student Frustrations*

### Institutional Difficulties:

Many institutions of higher learning and university administrations '... see online programs mainly as a way to save or make money.' (Glenn, 2002 as cited in Academe, 2002). This should not be a guiding force in deciding to move courses online. The short-term costs of online courses and programs are inevitably high as new concepts are initiated and new materials developed.

University and college leaders must not see online learning as a 'cash cow' but as an entirely new and up to date method of teaching and learning. Trentin and Scimeca (1999) stated that:

*"When dealing with online education, we generally think of the application of the newer technologies and of the involvement of tutors with notable expertise..."*

Unfortunately, many universities and colleges may indeed have excellent tutors, but may lack immediate access to the physical resources that are required, and may struggle to find the funds needed to appropriately enter this arena. However, if smaller institutions in particular cooperate to produce online products then many of the monetary and physical resource problems may be alleviated. Indeed, cooperation between departments within a university, and between universities, can be seen as the key to providing high quality resources at minimal cost.

Jones and McCormack (1997) stated that:

*"All teaching and learning requires administrative support in the form of assessment management, student enrolments, (and) student tracking."*

This is true whether the teaching is face-to-face or online. The difference proposed here is that all stake holders work together to design and implement effective and flexible online learning courses. It is essential that adequate communication channels and feedback mechanisms be provided for academic and administrative staff. The importance of this is very frequently overlooked, usually to the detriment of the learning resources.

As previously mentioned, it is not usually feasible to simply transfer current paper based materials unchanged to the online environment. Most, if not all, paper-based materials are likely to be in an inadequate format to simply scan and place on the web. Much of this material will need to be rethought and reconfigured to be of any value in an online course.

## Minimizing Institutional Difficulties

17. Decide at executive level that online courses and programs are to be delivered for good pedagogical reasons, rather than short-term profit.
18. Examine the possibility of cooperation with other institutions.
19. Provide adequate communication channels and feedback mechanisms for academic and administrative staff.
20. Design appropriate online materials and teaching and learning resources.
21. Implement online courses and programs with appropriate feedback mechanisms.

Figure 5: *Minimizing Institutional Difficulties*

### Substandard Online Course Materials:

Kearsley (2002) stated that: -

*"... online courses have to be well designed, otherwise they will be ineffective. Poorly designed courses have high drop-out and low completion rates. So, saying that a course can be designed for a given subject or task, doesn't mean that any course will work. Since most courses are developed by instructors with little experience in online teaching or the design of online courses, they are often not very well designed."*

Careful preparation of online materials is essential, particularly if the aim is to allow students to study at their own pace, and at times of their own choosing. To convey appropriate concepts in an online environment, it may be necessary to make extensive use of graphics, animations, and simulations, even in courses normally considered text-based. Students of today are brought up with television, game boys, play stations and computers. All of these activities make them a much more visual and computer literate group than their predecessors.

The initial design and construction is therefore likely to be a more complex one than first envisioned by the institution and, as mentioned earlier, will almost certainly require input from specialist instructional designers and skilled multimedia developers. Moreover, all involved in the production process - academics, administrators, and developers - will need to prepare the materials so that maintenance is simplified, and modifications are able to be made without great effort or expense.

Toporski and Foley (2004) listed five key points that academics should remember when writing a course to be taught online: -

- Center learning around the student. ... In the online classroom, learning activities are decentralized without time as a limitation.
- Focus on the needs and strengths of students ....
- Provide just-in-time and anywhere-anytime instruction..
- Foster collaborative learning environments,.... co-operative teams characteristically achieve at higher levels of thought and retain information longer than students who work individually.
- Emphasize authentic learning experiences ....

It may take many months of preparation, design, development, and testing before suitable materials are in an appropriate state to be acceptable for an online learning environment.

As a minimum, resources should include:

- a course home page with a range of links to electronic resources;
- electronic copies of course materials available for printing;
- workshop tasks and solutions to encourage participation in online communications;
- clear and concise assignment marking guidelines;
- full contact details of all instructors;
- the provision of the initial Web-site on CD-ROM this will assist the student who maybe having ISP difficulties;
- and the provision of facilities to enable online submission and return of assignment items in a timely and efficient manner.

The vast majority of online courses do not currently provide even these essential requirements. In particular, the provision of CD-ROMs to off-campus online students is not widely practiced, but is invaluable to those reliant on a poor or expensive Internet connection.

Interaction between the students and academics is likely to begin as soon as students enrol in an online flexible learning course. From this point onwards, both the academics and the administrators should gauge the success of the course materials via interactive processes. Have they successfully achieved what they set out to do the creation or adaptation of a standard course to its new online environment? Have the students found this environment to be an easy one in which to study?

With careful monitoring of the appropriate communication mechanisms, such as email lists and course specific chat rooms, academics will be able to find, understand, and hopefully solve, any problems that may be a cause of concern. This continuous feedback from students will be

one of the most important tools used to improve the online course materials. This process will also enable the academics and administrators to gauge the success of both their materials, and the delivery method.

For many online courses, students will still most likely follow a normal progression through the concepts, ideas and developmental skills that any course requires. Even if the online course is constrained by administrative procedures and schedules, there will continue to be an increase in the number of students who are prepared to tackle this, no longer quite so innovative, method of study. Many of them will have decided to study online because they will not have had the ability to move on-campus to their institution of choice.

### Minimizing Substandard Course Materials

22. Provide sufficient resources for preparation, design, development and maintenance of materials.
23. Consider suitability of graphics, animations and simulations.
24. Provide resources to students including electronic copies of course materials, workshop tasks and solutions, assignment guidelines and contact details.
25. Where possible provide a copy of the website on CD-Rom.
26. Seek feedback on a continuous basis from students.
27. Involve instructional designers and multimedia developers throughout the processes of production and maintenance.

Figure 6: *Minimizing Substandard Course Materials*

### SUMMARY

The issues that confront academics, administrators when they attempt to introduce online learning courses in the curriculum of their educational institutions are many.

This paper has attempted to highlight some of the common problems, and has presented 27 guidelines designed to ensure that courses can be transferred to the online mode with a reasonable expectation of success

that is, where an environment is presented in which students are capable of effective learning.

With careful thought and discussion, plus the introduction of minor changes to the institutional mindset, the introduction of flexible online learning is likely to be of benefit to the educational institution, the student base and the market place.

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