

# COMMON FACTORS INFLUENCING SUCCESS IN THE ONLINE ENVIRONMENT

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## ABSTRACT

This paper describes an emergent 'best practice' model in relation to the use of online content in the classroom, developed as a result of cumulative observation and research, conducted in April 2006. The qualitative experience-based study involved observation and consultation with eight schools or educational institutions in Iceland and Finland, together with one exemplar from the UK.

## ABOUT SCIL

The Sydney Centre for Innovation in Learning is an activity of Northern Beaches Christian School. SCIL is multi-faceted. It is a place; it has a range of diverse innovative projects in progress; it offers different professional and learning programs for teachers, students and the wider community and a SCIL presentation team are committed to innovation and excellence in education. SCIL has a Research and Development team who have developed innovative programs at NBCS, facilitating collaboration with tertiary institutions, research students and other schools.

## ENQUIRIES

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## A. SCOPE OF RESEARCH

Northern Beaches Christian School, Sydney, Australia, has been developing its ability to incorporate online methodologies into its recurrent educational practice, in order to enhance and transform classroom learning, via a targeted project that commenced in 2002. With new key personnel joining the team in 2006, a qualitative, experience-based study tour was undertaken in a range of schools or institutions in Iceland and Finland, together with one exemplar from the UK, with the objective that the vision for online education might become fully shared and comprehensively understood. The intention was to develop a model for 'best practice' online pedagogy, based on the cumulative experience of schools and institutions successfully using such methodologies as part of their recurrent practice. A number of those schools or educational institutions also operate broad ranging distance education programs.

This research paper reflects on the evident best practice in online pedagogy within the schools included. The research involved in-depth interviews with the school executive responsible for the delivery of online courses, as well as direct observation of a range of classes in action.

## B. PARTICIPATING SCHOOLS AND INSTITUTIONS

1. Thomas Telford School, Telford, UK
2. Fjölbrautaskóli Snæfellinga, Grundarfjörður, Iceland
3. Fjölbrautaskólinn við Ármúla, Reykjavík, Iceland
4. Asrun Matthíasdóttir, Professor Computing Science, Reykjavík University, Iceland
5. Verzlunarskóli Íslands, Reykjavík, Iceland
6. Fjölbrautaskóli Suðurlands, Selfoss, Iceland
7. Tampere Polytechnic, University of Applied Sciences, Tampere, Finland
8. Sotunki Distance Learning Centre, Sotunki Upper Secondary School, Vantaa, Finland
9. Kotka High School for Adults, Kotka, Finland

## C. TERMINOLOGY

Blended learning	learning that uses both face to face teaching and online elements
Distributed learning	education distributed to the point of learning
Distance learning	courses that have been created for non-timetabled, fully distant delivery; such delivery may include face to face workshop experiences
LMS	Learning Management System
Online education	education that uses prepared digital content delivered through web-based technology
Virtual class environment	a class community existing as a web-based environment, using online content

## **D. THE VIRTUAL CLASSROOM IN PRACTICE: FROM OBSERVATION TO EMERGENT MODEL**

A range of key considerations emerged as being critical to the success of pedagogies incorporating web-based learning environments in the classroom. Evidence suggested that all play a significant part in contributing to the success of - and within - the virtual teaching and learning environment, whether that environment exists to support face to face teaching or whether it is intended to support fully online distance delivery.

1. Vision
2. Pedagogical considerations
3. The teaching & learning environment
4. Course format
5. The role of staff
6. Staff training
7. Student qualities
8. The strength of the online community surrounding a course
9. The technology and infrastructure used

### **1. Vision**

"The success of an online program depends largely on a clear and cohesive vision providing direction."

Clearly articulated and evident whole school vision in relation to the use of online education in the classroom (both real and virtual) appears to be a key pre-requisite for sustained success in web-based learning. Specific program goals, linked to an overarching vision statement, seem to be highly significant in facilitating a number of important outcomes. These include more evident student ownership of their learning, higher levels of student achievement where blended learning methodologies are used and higher levels of student retention in fully distant courses.

#### **Factors evidently influencing success:**

1. Clearly articulated vision for online education within a school, matched with strong whole-school educational leadership.
2. Passionate educators in key roles within the online program.
3. Ensuring that the online program is both manageable and well-managed.
4. Broad understanding and engagement by general staff in the vision
5. A willingness by individual staff to grow the vision; who as early adopters and advocates for online methodologies, explore the flexibility of the virtual environment.
6. Student and parent understanding of the vision and potential of online education.



7. A willingness to work as collaborative partners with other institutions.
8. Preparedness to entertain flexible and innovative staffing structures to support online teaching.
9. Effective financial strategies for the design, creation and delivery of online course material.

## **2. Pedagogical considerations:**

“Teachers need to be able to bring the classroom into the computer.”

- Sigurlaug Kristmannsdóttir, Verzlunarskóli Íslands, Reykjavik

Teachers working within the online environment need to have a clear understanding of the pedagogy underpinning all classroom practice and choices in both their real and virtual classrooms. Teachers need to become artists within the virtual classroom – using the creativity and flexibility of the online environment to create a sense of dynamic interaction. Only accomplished educators should be allocated classes in an online environment; those able to transfer their understanding of good practice in the real classroom into the virtual environment. Teachers should be prepared for the additional initial effort required to develop exemplar online material, whether for blended or fully distance delivery. Teachers of online courses need to look at content and consider the available methodologies to promote learning and then develop the material as appropriate. School leaders should never place teachers into the virtual environment who lack a clear understanding of good pedagogy, especially if such allocation is chosen as a solution to recurrent classroom management issues.

### **Factors evidently influencing success:**

1. Pedagogy courses for staff: teacher development in understanding of genre; an emphasis on professionalism.
2. Teachers recognising that online and blended learning should provide the possibility to learn.
3. Clear understanding of online pedagogies and a willingness to experiment within that medium.
4. Teacher ability to assess how to use available online media elements in a way that supports the learning process: lesson preparation should include both technical and pedagogical questions.
5. Importance of teachers driving the process: clear teacher persona: “Importance of being a person in their web classroom.”
6. The online environment should retain a student-centred approach with a clear focus on the learning process prior to specific content preparation: interaction and communication must be achieved.
7. Online methodologies can create personalised learning paths for individual students

8. Online course development is well-suited to team development approaches; online teachers should display an inherent willingness to work within a team approach as they develop and share resources.

### **3. The teaching & learning environment**

“Online teaching has radically and gloriously changed my teaching.”

Once a teacher has understood the pedagogical framework associated with web-based learning, the targeted construction of the teaching and learning environment is a key consideration. The online teacher needs to replicate the dynamics and strength of the physical classroom in their virtual class environment. At its best, a web course is able to combine the advantages of independent learning and classroom teaching. The online teaching and learning environment should provide the possibility to learn, while at the same time allowing the students themselves to take responsibility for using the environment effectively. Given the availability of tracking tools within a LMS, there is an obvious potential for the teacher of an online course, or using blended methodologies, to have a far greater immediate understanding of specific student progress during a course, than in a traditional classroom.

#### **Factors evidently influencing success:**

1. The teacher needs to actively create an interactive student-centred online teaching and learning process.
2. Learning should be sequential & based on identified student levels of understanding.
3. The web-based environment should be constructed so that all students, especially those naturally passive in the real classroom contribute to, and collaborate with, the rest of the online learning classroom community.
4. Learning expectations and course instructions need to be conveyed very clearly in the virtual teaching and learning environment.
5. Teachers should create a format that links and guides students into existing resources on the net.
6. Teachers need to recognize the difference between teaching and just uploading material on the net.
7. Course development processes should include continual adjustment of course material.
8. Group-based differentiation is possible in the virtual teaching and learning environment.

## 4. Course format

Good instructional design is a pre-requisite to success in the online environment. Students will flounder if any online content supporting their classroom learning or delivered as a fully online course, is just a list of tasks to be progressively completed. There is a need for material to engage the student, through a diverse use of interactive media elements. Consistent use of embedded video and audio components in particular can significantly enhance the interaction between teacher and student. Induction processes are important in establishing an online community supporting a particular course. The use of a common course interface, along with consistent templates and style guidelines within courses, can all contribute to establishing familiarity for students in a virtual classroom. Students need to be proficient with the selected Learning Management System and any other course infrastructure supporting the delivery of an online course.

### Factors evidently influencing success:

1. Course instructional design is very important in the online environment.
2. Standardized course templates, style sheets, outlines, overview and assessments all promote effective learning in the virtual environment.
3. Using standardized instructions across courses can assist familiarity within an online environment.
4. Embedded video can easily provide a dynamic dimension.
5. Clear identification of key learning content, delivered as distinct modules, is important in course design.
6. Extensive feedback systems are very important (Moodle, email).
7. Online courses should cater for different learning styles and a range of multiple intelligences.
8. Teachers should be able to readily embed their own developed resources and photos.
9. It is helpful to base courses on a text – but not to allow any text to become the teacher.
10. Course formats should allow for class news and regular updates on any specific instructions.
11. Course content should undergo recurrent updating.
12. Course presentation should be varied: links to current web resources, photos, text and voice.
13. Course design is important: a clean web page interface is helpful.
14. Courses should use examinations for authentication.
15. Course workshop days are significant to provide a heightened level of course ownership and confidence.
16. Teachers should focus on reaching specific objectives in lessons.

## 5. The role of staff

"A web course without a teacher is like an empty classroom with a pile of handouts left on the desk for the students."

-Marianna Leikomaa & Hanna Torp, Tampere Polytechnic, Finland

The selection of staff for teaching within an online program is closely linked to student success. Experience would suggest that while all staff can be expected to successfully incorporate blended learning methodologies into their classes, only highly accomplished classroom teachers should be allocated to fully online courses in the virtual environment. Highly accomplished teachers are better placed to understand the pedagogical shift required to move their active and dynamic real classroom into the virtual environment.

Factors evidently influencing success:

1. Online teachers need to self select into a program, rather than being allocated.
2. An understanding of the role of staff is crucial to the success of an online course.
3. A positive attitude toward online methodologies and a willingness to explore possibilities within the virtual learning environment makes an enormous difference.
4. Student retention in distance courses influenced by teacher attitude.
5. Excellence & success in the online classroom is linked to the strength of individual teachers
6. Individual ownership by teachers of use of ICT
7. Staff should seek to provide a 24 hr response time to any student question
8. Online teachers with a strong level of ownership of individual online students influence the level of success significantly.
9. High expectations that all staff use technology.
10. Targeting specific management positions to support the online program is a significant factor for success.
11. It is important to recognise teacher stress issues and then takes steps to manage them.
12. Active strategies to avoid student isolation in the online environment, in order to minimize risk of withdrawal from course.

## 6. Staff Training

The use of online content in both blended and distance-delivery modes requires a willingness among staff to engage in a significant and on-going level of professional development. Exemplar programs might include staff training delivered via online methodologies. Staff need to be aware that there will be an initial and significant additional preparation load when involved in specific online course delivery. This will be compensated in time by well-developed courses that need minimal adjusting from year to year.



### **Factors evidently influencing success:**

1. Heavy emphasis on recurrent staff training and continual teacher improvement was a common factor in successful programs.
2. Online teachers benefit from themselves being a member of an active online learning community in order to understand the environment, especially the use of a LMS.
3. Professional courses for staff delivered online should use the same LMS as the students.
4. Teachers need to be fully trained in using all the software available for use in the virtual environment.
5. The willingness of staff to engage in on-going professional development, matched with an expectation of staff skill development.
6. The competence of teachers in instructional design was crucial to course success.
7. The availability of key staff to provide continuous professional development delivered at the point of work, not via in-service.
8. The availability of staff to provide regular structured professional development.
9. Staff should have a constant focus on excellence & standards.

## **7. Student qualities**

All students will benefit from a well-organised virtual environment. Such an environment can easily enhance learning, providing cohesion, motivation and flexibility. Students contemplating undertaking fully distance-delivery online courses need to have a high individual level of resilience, diligence and commitment to independent learning. Some students are particularly suited to fully distance modes, others not. Goal oriented students are significantly more suited to a fully distance-delivery online environment, than those without the self-drive to achieve. The age of students is also clearly a significant factor in successful completion of courses, as is the understanding of the pedagogy and methodology of a virtual learning environment. Students need to take clear ownership of their learning and view active participation in the virtual class community as a significant part of any online course, whether blended or distance-delivery modes.

### Factors evidently influencing success:

1. Student ownership of their responsibility to learn.
2. Student participation in the online class community, including the creation of their personal profile.
3. Maturity as an independent learner.
4. Clear individual learning goals and motivation to complete course.
5. Student willingness to interact with their online teacher.
6. Student access to course advisers and careers counselling.
7. Students taking advantage of personalised learning options in an online environment.

8. Student understanding of education as a means of individual growth, developing career options and providing them with a competitive edge.
9. Students focused on productivity and outcome.

## **8. The strength of the online community surrounding a course**

“Teachers need to be very visible to the students in the virtual community.”

Success in the online environment clearly requires a very visible class community, whether that is for a blended approach or in a fully distance-delivery mode. The time taken to induct students into the virtual classroom environment for a course, along with a recurrent focus on developing a distinct and positive class environment, would appear to significantly influence student learning outcomes and the retention rates of those studying fully online courses. Students need to feel secure, confident and not isolated within the online environment.

### **Factors evidently influencing success:**

1. Teacher attention should initially focus on establishing a clear and inter-active learning community surrounding each course.
2. The strength of the online community surrounding a course is in itself a key factor to fostering success as an online student within that environment.
3. Staff development should focus on successful ways to develop online learning communities, rather than teaching isolated students.
4. Assessment methods should include a level of collaborative work from within the online class.
5. A student's rapport with the teacher is critical to success.
6. A 24 hour response time to either acknowledge or answer questions is important in web-based learning.
7. There is a need for students to feel connected in the virtual classroom.
8. Some subjects and students are better suited to distance education than others.

## **9. The technology and infrastructure used**

Teachers working in the virtual environment need to feel confident in the technical side of web-based learning. Online pedagogy requires a stable networked environment, where teachers have justifiable confidence in the ability of the technology to handle the requirements of online learning. Teachers need to be proficient in technical aspects of specific Learning Management Systems used within their class environments, whether for blended or fully distance-delivery modes. The infrastructure needs to support a model that involves the teacher as the active developer of lesson specific content delivered via a student-centred portal within a stable learning management system.

### **Factors evidently influencing success:**

1. Reliability of infrastructure
2. Ease of use including consistency of framework
3. Technical support
4. Classroom IT infrastructure with multimedia capacity
5. Classroom IT infrastructure promoting pedagogical change within the learning environment
6. LMS able to identify those students online at any time.
7. Teacher understanding of the infrastructure.
8. Student understanding of the infrastructure.
9. Course induction processes including a focus on course infrastructure.

### **E. EXEMPLAR PRACTICE: SOME GOOD IDEAS**

“Teachers improve face to face because of planning,  
organising and focusing on big-picture thinking.”

There was consistent evidence that creativity within the virtual environment, teacher ingenuity and some great ideas all had a role in successful online course delivery.

Some ideas include:

1. Online ‘Home’ course enrolment for all students while undertaking online courses – providing an additional mechanism to communicate with students e.g. give information on all courses or providing a Principal's welcome.
2. Embedded video: Camtasia / document cameras / drawing boards.
3. Weekly connection between program coordinator & online students.
4. Commence the online week on Tuesday to allow for thorough preparation after weekends.
5. Designated staff role as an online community developer.
6. Teachers “opting in” to the online course allocations.
7. Creative costing: e.g. refund for completed exam – full refund of course component.
8. Separating out an administration fee and course fee - student refund of course fees (partial or full) upon successful course completion; Teacher bonus for student course completion.
9. School-branded Powerpoint templates for use in online environment.
10. Student course advancement dependent upon successful course completion: students re-sit course examinations if they fail to meet specified outcomes.
11. Allocation of online tutors to support online students.
12. Extra reading for motivated students made available in online courses.
13. Evening workshops; supplementary online courses to provide remediation.

14. Students receive a report on every module (every 4 weeks).
15. Parent training nights in the online curriculum.
16. Targeted staff recruitment for virtual school.
17. Facilitating the development of individual teacher resources suited to use in the online environment.
18. Creating a virtual office to support the virtual school.
19. 'Tips from the teachers' section on the course page; FAQ page.
20. Use of specialist non-teaching support staff in online course material production: web designers; video technicians; graphic designers.

## **F. CONCLUSION**

A model that involves accomplished teachers, with an appreciation for the potential of IT in the classroom, matched with strong competency in IT, able to bring the strength of their real classroom into the virtual sphere, emerged as a highly successful exemplar. Such a model is relevant to both blended and distance environments. This approach, supported by comprehensive well-developed, web-based online content and delivered through the use of a student-centred portal, within a stable learning management system, provides the most viable model for easily integrated use of online learning.

## **G. APPENDIX: OTHER IDENTIFIED FACTORS INFLUENCING SUCCESS:**

1. Non-traditional executive structure
2. Opportunity culture as opposed to 'moan culture'
3. Preference for a longer period structure (two period day)
4. Supervision of any school-based Independent Learning Centres: non-teaching staff used for supervision
5. School culture geared towards positive student self-esteem and positive student outcomes
6. Tailored jobs to suit online program priorities
7. Constant evaluation of all aspects of online program: emphasis on benefits for students
8. Highly qualified teachers: nationwide emphasis on strong teaching skills
9. Make exemplar courses available via Moodle (with enrolment key)