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Scotland: Use of Technology to Promote Educational Growth

“Distance learning and e-education has to be one of the expanding markets of the near future,” says Gordon Thompson (2006a), Cisco’s Scottish operations director, at the www2006 international symposium held in Edinburgh the week of May 23 – 26, 2006. He continued, “Scotland is already a world leader in this field, and I can honestly say that there is not a single country that can claim to be as prepared for this as we are, but there is still work to be done.”

There are 23 institutions of higher education in Scotland including 13 universities, 6 colleges of higher education, 3 colleges of education, and the Open University in Scotland. The number of students enrolled varies depending on the institution. University of Edinburgh and University of Glasgow have over 16,000 students, Glasgow Caledonian University has over 12,000 students, Napier University has over 13,000 students, and St. Andrews has over 6,800. *The Standards in Scotland’s School etc Act 2000*

The Standards in Scotland’s School etc Act 2000 stated that every child has the right to an education and outlined methods to modernize the teaching profession to increase its status. In addition, five national priorities for education were established and defined as follows:

National Priority 1 – Achievement & Attainment

to raise standards of educational attainment for all in schools, especially in the core skills of literacy and numeracy, and to achieve better levels in national measures of achievement, including examination results;

National Priority 2 – Framework for Learning

to support and develop the skills of teachers and the self-discipline of pupils, and to enhance school environments so that they are conducive to teaching and learning;

National Priority 3 – Inclusion & Equality

to promote equality and help every pupil benefit from education, with particular regard paid to pupils with disabilities, and special educational needs, and to Gaelic and other lesser used languages;

National Priority 4 – Values & Citizenship

to work with parents to teach pupils respect for self and one another and their interdependence with other members of their neighborhood and society, and to teach them the duties and responsibilities of citizenship in democratic society; and

National Priority 5 – Learning for Life

to equip pupils with the foundation skills, attitudes, and expectations necessary to prosper in a changing society, and to encourage creativity and ambition. (Scottish Executive, 2004, p. 7)

Distance education and e-learning will need to play a vital role in accomplishing Scotland’s National Priorities for Education. The primary purpose of my research is to discover how, as educators, we can use distance education or e-learning to reach students that would not have an opportunity to attend college by any other method. A secondary purpose of my research is to find out if the perception about distance education is different in Scotland then in the United States. If perceptions are different, I would like to learn what Scotland does different that has

won over the skeptics. This information could help design a better methodology for developing and marketing distance education and e-learning courses.

Research Method

This research encompassed an online search of current literature, university Websites, and governmental Websites. In addition, I traveled to Scotland, July 2006, with a study abroad program through Clemson University and visited University of Glasgow, Glasgow Caledonian University, St. Andrews University, University of Edinburgh, and Napier University. During our stay in Scotland, we had the opportunity to talk with government officials, professors, students, and student services personnel.

History of Distance Education in United Kingdom (UK)

Distance education has been around for over 150 years. University of London established *The External Programme* in 1858 and “is the world’s longest-running distance learning programme” (University of London, 2006). In 1926, J.C. Stobart had a vision to design a ‘wireless university’ but it was not until the 1960s that the concept became a reality. Originally marketed as the ‘University of the Air’ the UK’s Open University was born. In 1969, the Open University became a ‘real’ university complete with the first Vice Chancellor, Walter Perry. In 1971, the first students started class and began work on their first foundation courses (Open University, 2006). Today, the Open University has nearly 200,000 students worldwide with 13 regional centers. A regional center located in Edinburgh, Scotland has 15,600 local students (Open University Scotland, 2006).

Definitions

Ancient universities. Universities founded in Scotland during the medieval period includes University of St. Andrews, founded 1411, University of Glasgow, founded 1451, University of Aberdeen, founded 1495, and University of Edinburgh, founded 1583 (Wikipedia, 2006a).

Devolution. Delegation of powers to local bodies (Webster, 1997). May 6, 1999, the Scottish electorate voted to elect a Scottish Parliament fulfilling a commitment of the UK’s ruling Labour Party. The Scottish became responsible for certain aspects of the Scottish legislation, which included education (Osborne, Cloonan, Morgan-Klein, & Loots, 2000).

Distance Education. Learning from a distance where the students have contact with a professor but it might not be face-to-face. This might include video, television, remote conferencing, audio bridges, etc.

E-learning. Learning on-line and using Web-based resources or other media such as CD and DVDs.

Further Education (FE). FE is the step between secondary school and higher education. Typically covers Highers and vocational qualifications and is available to anyone over 16 years of age (Jewel & Esk Valley College, 2006).

Higher Education (HE). Higher education includes both undergraduate level and graduate level coursework.

Higher Education Institutions (HEIs). HEIs are institutions that offer a variety of missions and academic traditions. At large universities staff engage in research, teaching, and scholarship (Scottish National Committee, 1997). Some universities have vocational education

geared toward the adult student and offers continuing education and part-time degrees. Typically, HEIs will have an association with further education colleges (National Dossier, 2004).

Highers. Highers are national exit exams from secondary school and used by Higher Education Institutions as entrance qualifications (Wikipedia, 2006b).

Mega-universities. A mega university is a distance education institute that enrolls a large number of students. An example, The Open University in the UK currently enrolls around 150,000 undergraduates and over 30,000 postgraduate students (The Open University, 2006).

Scottish Schools Digital Network (SSDN). The SSDN project is a national intranet that will digitally link 800,000 educators and students throughout Scotland. Rollout of the network will commence in the last quarter of 2006 (SSDN, 2006).

Key Findings

Ancient Universities. While in Scotland, we visited three ancient universities: University of Glasgow, St. Andrews University, and University of Edinburgh. When asked about distance education the basic response was that they did not have distance education or e-learning but the Open University is highly respected for their high quality education. However, the ancient universities had computers available for their students and faculty, had access to the Internet, and used the Internet to distribute class lecture notes. At the University of Edinburgh, there was some interest in distance education and Roadburg (Personal interview, July 24, 2006) commented, “A committee has been selected to look at distance education as a method to assist our students with disabilities.” When asked about the Open University helping to design the curriculum she was supportive of the idea and acknowledged the high quality of work that comes from the Open University. University of Aberdeen, which we did not visit, has many of their undergraduate and postgraduate courses available through distance learning as well as courses taught through the Centre for Lifelong Learning (University of Aberdeen, 2006).

Glasgow Caledonian University. Glasgow Caledonian University is a ‘new’ university created in 1993 by combining the Queen’s College and Glasgow Polytechnic. The most recent addition to campus is The Saltire Center. When you step into the building, it is like stepping through time. The architecture is outstanding and all of the furnishings are ultramodern. The Saltire Center is a one-stop shop for student services complete with a library and full of innovative technology. Even with all the innovative technology, Glasgow Caledonian University offers only a few distance education courses.

Napier University. The Business School at Napier University is a new building designed with the newest technology possible. There is a computer lab in the atrium on the second floor that is enormous in size; there are rows and rows of computers. A second lab is available on the first floor but not quite as large. According to the postgraduate prospectus (2006), there are 1250 PCs and 150 Apple Macs spread out over seven campuses.

Sam Allwinkle (2006), Director of Lifelong Learning at Napier University, explained that the university recently received a grant for £2 mil to develop the distance education and lifelong learning programs at Napier University. The majority of this grant will fund setting up distance education between Napier University and China.

Napier University also received a matching grant from the European Social Fund in early 2005 for approximately £330,000 to develop 20 Masters level distance education modules. The

first phase commenced on May 1, 2005 and consisted of developing 12 core modules for a generalist MBA. The second phase, commenced in February 2006, and consisted of four specialist MBA programs (Napier University Business School, 2005).

Napier University and China. In response to the Scottish Executive's strategy "to strengthen Scotland's engagement with China" (Scottish Executive, 2006a), Napier University has developed "strong relationships with educational providers and governmental organizations in China" (Scottish Executive, 2006b). In 2005-2006, Napier University and the Chinese Ministry of Education agreed to an articulation arrangement that allows Chinese students to attend local institutions and then finish their degrees at Napier University in Edinburgh. There are over 400 students from two partnering institutions, Zhenzhou University of Light Industry and Shandong University of Finance, which participate in the program. As part of the agreement, Napier faculty assists in the development of the syllabus for each program and teaches in China. In addition, there are around 1,000 Napier University students studying at other partner institutions including the University of Hong Kong and are being taught by Napier faculty (Scottish Executive, 2006b).

The Robert Gordon University. The Robert Gordon University in Aberdeen gained university status in 1992. In 2002, the Department of eLearning (DeL) was formed "to provide a centre of excellence focused on the development, delivery and support of RGU's e-enabled learning environments" (The Robert Gordon University, 2006a).

In May 2006, the European Social Fund (ESF) awarded DeL a grant for £250,000 to develop virtual learning environments (VLE) and innovative Information and Communication Technology (ICT) solutions (Robert Gordon University, 2006b).

Open University. The Open University main campus is located in Milton Keynes, England. In addition, there are 13 regional offices including a regional office in Edinburgh, Scotland. The Open University system has close to 200,000 students and fits the description of a 'mega-university.'

The style of teaching used at the Open University is 'supported open learning' or 'distance learning.' Supported means that students will receive support from a tutor and student services staff at the closest regional office. Open learning means that you will learn on your own time and will be responsible for completing assignments by yourself unless assigned to a group project (Open University, 2006).

According to The Sunday Times (2004), the quality of education at the Open University is exceptional. Only four institutions, Cambridge, Loughborough, York, and the London School of Economics (LSE) have a better teaching record in the UK. The Open University earned top ratings in 19 subjects and is "dedicated to widening participation and giving people a second chance at education" (The Sunday Times, 2005).

Comparing Scotland to the United States

Perceptions of the Open University and University of Phoenix. In Scotland, perceptions are mixed when it comes to distance education and e-learning. The Open University received top ratings in 19 different subjects by the Quality Assurance Agency. Only four other universities in the UK had better ratings than the Open University. Everyone we met acknowledged the high level of quality programs at the Open University but several professors still struggle with saying distance education is quality learning.

In the United States, for-profit companies such as the University of Phoenix conjure up the thought of a “diploma mill” and while some businesses have started accepting the degrees from University of Phoenix, students find it very difficult to transfer credits to traditional educational institutions. In addition, traditional educational institutions in higher education will not accept a PhD from the University of Phoenix. John Fernandes, President and CEO, Association to Advance Collegiate Schools of Business (AACSB), stated that these types of schools rely on “moonlighting amateurs” to teach the courses (Symonds, 2003). The North Central Association of Colleges and Schools have accredited the University of Phoenix but AACSB will not accredit their Business College.

Distance education at the traditional universities and colleges are in their infancy in Scotland and the government, via the European Social Fund, is encouraging universities to expand their services by awarding grants to assist in the process.

In the United States, distance education is a mixed bag. Some traditional universities are expanding their distance education services to take full advantage of new technologies while other universities have decided to use technology for passing out lecture notes and course assignments.

Distance learner's characteristics. Distance learners in Scotland are very similar to distance learners in the United States. “Distance learners are independent, self-directed, autonomous, internally motivated, and collaborative in some cases” (Angelino, Williams, & Natvig, 2006, p. 7; Diaz & Bontenbal, 2001). “They are 22-50 years of age, unable to enroll in traditional undergraduate programs due to other responsibilities, and typically a lifelong learner. In addition, they have a job, could have childcare responsibilities, commute more than 10 miles to campus, and have computer experience” (Angelino et al, 2006, p. 7; Dutton, Dutton, & Perry, 2002). In Scotland, marketing for distance education focuses on international students and students with disabilities more so than in the United States.

Conclusion

Scotland is trying several different methods to promote educational growth in the region. One method is distance education, which allows students to attend classes in their own space and at their convenience. The Open University is one option that is available today and many students from the Highlands of Scotland are taking advantage of the opportunity (Open University, 2006). The Robert Gordon University's Department of eLearning is also delivering on-line learning to both on-campus and distance education students.

From our lectures in Scotland, we found the real opportunity for the Scottish universities is to teach international students because they pay full price for an education and the government does not supplement them. Scottish students and students from within the EU get a free education if accepted into the university. Therefore, universities are now marketing heavily to international students. The University of Edinburgh is going to start a program in Africa where they will actually go to Africa to teach. E-learning or distance education would be perfect for this project but instead they have decided to continue with the traditional method of face-to-face.

In contrast, Napier University has implemented E-learning modalities by teaming up with China. This university is sending faculty to China to teach face-to-face, plus using distance learning. Currently faculty members are developing modules to teach Chinese students and have received a matching grant from the Scottish government to help cover some of the costs.

Universities in Scotland are attempting to use distance education as a method of reaching students in remote locations of the world and in effect promoting educational growth as a means to grow their economy. For the ancient universities, they understand the economics of increasing the number of international students but value their traditional teaching method of lecturing face-to-face. They are hanging on to their traditions and are having a hard time understanding the advantages of distance education.

Further research

Growing the economy in Scotland is critical to the country's success. Growing education is critical to growing the economy. Research is needed to find the most effective and efficient method to grow education and to continually evaluate the quality of the education being delivered.

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