History Development and Present of Distance Education in India

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Abstract—**This paper focus on accentuating the history, development and present techniques which are followed for distant education at present in India. Distance education has always been an important pillar for developing the literacy rate of any country. It education make it easy to reach far flung areas and to the section of society, which is somehow, not able to avail the conventional techniques of education.**

Keywords-education; distant education; learning; literacy

INTRODUCTION

Distance education or distance learning is a mode of delivering education and teaching, often on an individual basis, to students who are not physically present in a traditional setting such as a classroom.

Distance learning provides "access to learning when the source of information and the learners are separated by time and distance, or both." Distance education courses that require a physical on-site presence for any reason (including taking examinations) have been referred to as hybrid or blended courses of study.

Distance education is defined by the Association for Educational Communications and Technology as:

Institution-based, formal education

where the learning group is separated,

and where interactive telecommunications systems

are used to connect learners, resources and instructors.

Distance education has two major components, distance teaching and distance learning. Distance teaching isthe efforts of the educational institution to design develop and deliver instructional experiences to the distantstudent so that learning may occur. Education, and distance education, iscomprised of teaching and learning. Thistask force concentrated on distance teaching.

HISTORY & DEVELOPMENT

Distance education dates to at least as early as 1728, when "an advertisement in the Boston Gazette Caleb Phillips, Teacher of the new method of Short Hand" was seeking students for lessons to be sent weekly.

Modern distance education initially relied on the development of postal services in the 19th century and has been practiced at least since Isaac Pitman taught shorthand in Great Britain via correspondence in the 1840s. The University of London claims to be the first university to offer distance learning degrees, establishing its External Program in 1858. This program is now known as the University of London International Programs and includes Postgraduate, Undergraduate and Diploma degrees created by colleges such as the London School of Economics, Royal Holloway and Goldsmiths. In the United States William Rainey Harper, first president of the University of Chicago developed the concept of extended education, whereby the research university had satellite colleges of education in the wider community, and in 1892 he also encouraged the concept of correspondence school courses to further promote education, an idea that was put into practice by Columbia University. In Australia, the University of Queensland established its Department of Correspondence Studies in 1911.

More recently, Charles Wedemeyer of the University of Wisconsin–Madison is considered significant in promoting methods other than the postal service to deliver distance education in America. From 1964 to 1968, the Carnegie Foundation funded Wedemeyer's Articulated Instructional Media Project (AIM) which brought in a variety of communications technologies aimed at providing learning to an off-campus population. According to Moore's recounting, AIM impressed the UK which imported these ideas when establishing in 1969 The Open University, which initially relied on radio and television broadcasts for much of its delivery. Athabasca University, Canada's Open University was created in 1970 and followed a similar, though independently developed, pattern. Germany's FernUniversity at in Hagen followed in 1974 and there are now many similar institutions around the world, often with the name "Open University" (in English or in the local language). All "open universities" use distance education technologies as delivery methodologies and some have grown to become 'mega-universities', a term coined to denote institutions with more than 100,000 students. In 1976, Bernard Luskin launched Coastline Community College as a college beyond walls, combining computer assisted instruction with tele courses proceeds by KOCE TV, the Coast Community College District public television station. Coastline has been a landmark strategic success in helping to establish online distance learning using modern technology for learning.

The development of computers and the internet have made distance learning distribution easier and faster and have given

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rise to the 'virtual university, the entire educational offerings of which are conducted online. In 1996 Jones International University was launched and claims to be the first fully online university accredited by a regional accrediting association in the US.

A study published in 2011 by the U.S. Department of Education found that "From 2000 to 2008, the percentage of undergraduates enrolled in at least one distance education class expanded from 8 percent to 20 percent, and the percentage enrolled in a distance education degree program increased from 2 percent to 4 percent."

Today, there are many private, public, non-profit and for-profit institutions worldwide offering distance education courses from the most basic instruction through to the highest levels of degree and doctoral programs. Levels of accreditation vary: some of the institutions receive little outside oversight, and some may be fraudulent diploma mills, although in many jurisdictions, an institution may not use terms such as "university" without accreditation and authorization, often overseen by the national government – for example, the Quality Assurance Agency in the UK. In the US, the Distance Education and Training Council (DETC) specializes in the accreditation of distance education institutions.

TECHNOLOGY

Although the expansion of the Internet blurs the boundaries, distance education technologies are divided into two modes of delivery: synchronous learning and asynchronous learning.

In synchronous learning, all participants are "present" at the same time. In this regard, it resembles traditional classroom teaching methods despite the participants being located remotely. It requires a timetable to be organized. Web conferencing, videoconferencing, educational television, instructional television are examples of synchronous technology, as are direct-broadcast satellite (DBS), internet radio, live streaming, telephone, and web-based VoIP.

In asynchronous learning, participants access course materials flexibly on their own schedule. Students are not required to be together at the same time. Mail correspondence, which is the oldest form of distance education, is an asynchronous delivery technology as are message board forums, e-mail, video and audio recordings, print materials, voicemail and fax.

The two methods can be combined. Many courses offered by The Open University use periodic sessions of residential or day teaching to supplement the remote teaching. The Open University uses a blend of technologies and a blend of learning modalities (face-to-face, distance and hybrid) all under the rubric of "distance learning."

Distance learning can also use interactive radio instruction (IRI), interactive audio instruction (IAI), online virtual worlds, digital games, webinars, and web casts.

Syncronous Distant Learning

Define Synchronous learning refers to a group of people learning the same things at the same time in the same place. This is the type of pedagogy practiced in most schools and undergraduate programs, but not in graduate programs. Lecture is an example of synchronous learning in a face-to-face environment and with the advent of web conferencing tools, people can learn at the same time in different places as well. For example, use of instant messaging or live chat, webinars and video conferencing allow for students and teachers to collaborate and learn in real time.

Suppose you are a distance instructor who wants to emulate the conventional "best practice" of face-to-face learning by dividing a class into autonomous work groups. You want your distance students to form 4- or 5-person teams whose collaborative, problem-based learning work requires brainstorming, planning, negotiation, problem solving, and document production. What are the best readily available tools to support these activities?

A likely starting point would be the familiar asynchronous communication tools (e-mail and threaded discussion) that have played a primary role in distance learning to date. At the very least, asynchrony allows those students with challenging work, family, or study schedules to do schoolwork at any time. Under the best circumstances, skillful online instructors have successfully designed, facilitated, and monitored e-mail exchanges and threaded discussions that produce reasonable learning benefits. We may conclude that such asynchronous tools are indeed powerful (in that they are major enablers of online instruction), but they are also primitive (in that their temporal delays significantly limit interactivity and efficient collaborative learning).

If instructors want to optimize the performance of learning teams working on complex problems, they will need to consider working with the speed and immediacy of synchronous (or same-time) communication. Based on the accelerating development of such systems, their deployment in the workplace, and my own work with them, I expect synchrony to become the mode of choice for collaborative, small-team forms of online learning. In this article, I review the benefits and disadvantages of diverse synchronous tools, with an ultimate emphasis on application sharing and voiceover IP (VOIP) as the most advantageous and promising combination for educators in the future.

Tools at the Top and Bottom

Videoconferencing and chat, both part of the synchronous tools hierarchy, attempt to approximate face-to-face communication. Videoconferencing is at the top of the hierarchy because it addresses both sight and sound, and it comes closest to reproducing the multi-sensorial experience of "presence." Chat is at the bottom because it is the most removed from the audiovisual reality of face-to-face encounters.

Neither works especially well as a tool for collaborative teamwork. Videoconferencing is still too expensive for widespread use; it lags behind the broadcast standards to which we have been habituated and, even at its best, fails to capture many of the visual cues that make face-to-face the preferred work medium. Chat is slow; it forces users into an awkward, unfamiliar behavioral terrain when employed for complex intellectual work; and it benefits greatly from good writing and typing skills, which are not widely available. Chat has a deserved place in the panoply of online instructional tools, especially in the form of instant messaging, but why uses it for complex team-learning work when better tools (e.g., voice conferencing and Web conferencing) are available?

Audio Only

The phone conference is highly effective for organizing small-team distance learning experiences, and as a communication mode, it is superior to both e-mail and chat. It plays to a skill set? Although students need to learn some protocols, they otherwise see the phone conference as an extension of their natural lives. Moreover, the phone conference provides immediacy, a high rate of information exchange, and complex multi-person interaction facilitated by a familiar audio cueing system.

Unfortunately, this tool gets expensive when one tallies the per-minute/per person charges. One solution to this problem is to take advantage of the three-way calling option offered by most telecom providers (wireless included) in the United States. My students use Verizon's three-way calling, which is provided to subscribers as a regular service for a small monthly charge, or for a $0.75 (USD) single-use charge. Despite its name, four or more people can use the system at once.

My student teams regularly use phone conferencing to organize a series of assignments in a course on advanced business writing. Conference calls make it possible for the teams to efficiently analyze the workload, divide the duties, report progress, and change directions if necessary?

Despite its conveniences, the audio-only approach does have significant limitations. Taken by itself, it cannot enable the synchronous sharing and manipulation of artifacts (e.g., flowcharts, mind maps, Web pages, and memos) that help focus the cognitive synergies of a distributed team. The shortcomings of unassisted audio are most apparent in the document production phase of an assignment?

Web Conferencing and Application Sharing

Web conferencing remedies these problems through a function, known as application sharing, that will become an important part of distance learning as the price point improves.

Typical Web conferencing systems (such as those provided by Genesis and Rain dance) integrate the phone and networked computer screen so that an unlimited number of participants can talk to each other while viewing the same content. For example, a distance learning team might collaboratively write and edit a document with Microsoft Word or collectively surf various Web sites to research a given topic. The audio element allows the team to coordinate, negotiate, and collaboratively manipulate whatever object (e.g., an Excel spreadsheet) appears on their screens. If one member proposes a change of any sort, the result can be viewed and evaluated simultaneously by all. The resulting cycle of instant action/reaction (the strength of good synchronous team work) allows team members to quickly complete tasks and build documents.

Accessing such a Web conference is simple. Participants obtain an 800 number, URL, and password; they then phone in for audio and login online to pull up a common page. Unfortunately, many students cannot meet the requirements associated with Web conferencing: the high cost due to per person/per minute charges as well as the need for a DSL line, two phone lines, or a phone line and a cable modem so that they can access the Internet while talking on the phone.

Voiceover IP

An alternative that is likely to mature in the near future is application sharing with voiceover IP (VOIP). These systems, which bypass the telephone and transmit audio over the same Internet lines that link users to their shared applications, are relatively simple to use. Participants in a conference typically communicate with the microphones and speakers installed on most computers; they need only to adjust the volume and balance controls before starting. Headsets work best because they free the hands for typing and using the mouse. Once a conference is underway, users simply interact as they would in a conventional phone conference

A voice compression algorithm transforms the analog input (the speaker's voice) into a collection of digital packets (the same kind that carry all other traffic on the Internet), which then are routed over a variety of different lines to their destination.

The technology is a brilliant exploitation of the Internet, but it has drawbacks that potential users need to recognize. Because the packets in a given message do not travel together, some of them may get lost, while others may arrive at different times for final assembly. The result can be noticeable delays in a VOIP conversation. Such undesirable latency effects may be worsened if the various participants are operating with different download speeds. A student working with a 56K modem or less, for example, will definitely introduce lag into a conversation with students using DSL or cable modems.

Compared to the telephonic standards we are accustomed to, voiceover IP is intrusive and clumsy for a couple of reasons. As noted, lag is one. Yet its effects are not so disruptive as to render communication impossible; students learning and working together over VOIP will simply need to lower their typical expectations of high fidelity and immediacy.

Moreover, the better and usually more expensive VOIP systems tend to alleviate lag with load-balancing devices that control the delivery of consecutive messages, thus simulating

the spontaneous rhythm of face-to-face conversation. We can expect this to become the norm eventually, as the diffusion of broadband access continues and system developers learn how to lower the cost of latency alleviation.

The second consideration that potential users should keep in mind is the distinction between one-way and full duplex systems. One-way systems allow only one user at a time to speak, usually by mouse clicking a button on the graphical user interface (GUI).

The next speaker must ascertain when the first has finished, and then vie with the others in the conversation to be the first to depress the audio button and begin talking. These are not insurmountable problems; they are merely features that students will need to anticipate if they are to appreciate the benefits of VOIP.

Asynchronous Distance Learning

Asynchronous learning is a student-centered teaching method that uses online learning resources to facilitate information sharing outside the constraints of time and place among a network of people. Asynchronous learning is based on constructivist theory, a student-centered approach that emphasizes the importance of peer-to-peer interactions. This approach combines self-study with asynchronous interactions to promote learning, and it can be used to facilitate learning in traditional on-campus education, distance education, and continuing education. This combined network of learners and the electronic network in which they communicate are referred to as an asynchronous learning network.

The online learning resources used to support asynchronous learning include email, electronic mailing lists, threaded conferencing systems, online discussion boards, wikis, and blogs. Course management systems such as CampusCruiser LMS, Blackboard, Web-CT, Moodle, and Sakai, have been developed to support online interaction, allowing users to organize discussions, post and reply to messages, and upload and access multimedia. These asynchronous forms of communication are sometimes supplemented with synchronous components, including text and voice chat, telephone conversations, videoconferencing, and even meetings in virtual spaces such as Second Life, where discussions can be facilitated among groups of students.

Development of an asynchronous community

Though the social relationships integral to group learning can be developed through asynchronous communication, this development tends to take longer than in traditional, face-to-face settings. The establishment of an asynchronous community takes time and effort and tends to follow a projected course of five stages, as described by Waltonen-Moore et al.:

1. Introductions– This might include a full biography or a short "getting-to-know" you series of questions. Through this step, community members begin to see one another as human beings and begin to make a preliminary, emotive connection with the other members of the community. This step is often characterized by emotive or extravagant language and represents group members' attempts to make them known as living individuals behind the emotionless technology medium.

2. Identify with the group– Members begin to communicate with one another by reference to their commonalties as group members and seek to either establish or make known norms for successful membership. If this sense of group identity is not established, the likelihood of poor participation or attrition increases.

3. Interact– Members will start interacting with one another in reference to the community's established focus and begin to share information with one another. If the community is an online learning course, then students will begin to discuss course content.

4. Group cohesion and individual reflection– members of the group will begin to validate one another's ideas and opinions while, at the same time, being reflective of their own.

5. Expansive questioning— Now feeling completely comfortable within the environment, focused upon the content, and respectful of other group members' thoughts and experiences, members will begin to not only post facts and deeply-held beliefs, but will actually start to 'think out loud,' allowing other group members to take part in their personal meaning-making and self-directed inquiry.

Asynchronous communities that progress efficiently through these stages tend to share at least three common attributes:

First, the community has an active facilitator who monitors, guides, and nurtures the discourse. Unguided communities tend to have difficulty progressing beyond the second stage of development, because group members can become distracted from the community's intended purpose.

Second, rather than seeking to take on the role of an instructor or disseminator of knowledge, the facilitator recognizes that knowledge is an individual construct that is developed through interaction with other group members. Thus, facilitators within successful communities tend not to be pedantic, but supportive.

And third, successful asynchronous communities permit a certain amount of leniency for play within their discourse. That is, communities that insist upon being overly stringent on etiquette and make no room for the social development that comes from play seem to drive away participants. Rather than enriching discourse on the targeted topic, such attitudes have a negative impact on group identity development and individual comfort levels which will, in turn, decrease overall involvement.

Roles of instructors and learners

Online learning requires a shift from a teacher-centered to student-centered environment where the instructor must take on multiple new roles. The constructivist theory that supports

asynchronous learning demands that instructors become more than dispensers of knowledge; it requires that they become instructional designers, facilitators, and assessors of both grades and their teaching methods.

As instructional designers, emphasis is placed on establishing the curriculum, methods and the media through which the content will be effectively delivered. Once the design is in place and executed, the instructor must then facilitate the communication and direct the learning. Establishing a communal spirit is vital, requiring much time commitment from the instructor, who must spend time reading, assessing, reinforcing, and encouraging the interaction and learning that is happening.

The student-centered nature of asynchronous online learning requires students to be actively involved with and take more responsibility for their own learning. In addition to their normal duties as learners, students are required to:

• become proficient with the technology required for the course;

• use new methods of communication with both peers and instructors;

• strengthen their interdependency through collaboration with their peers.

Strengths of asynchronous learning

Asynchronous learning's greatest benefit to students is the freedom it gives them to access the course and its instructional materials at any time they choose and from any location with an Internet connection. This allows for accessibility for diverse student populations, ranging from traditional, on-campus students, to working professionals, to international students in foreign countries.

Asynchronous learning environments provide a "high degree of interactivity" between participants who are separated both geographically and temporally and afford students many of the social benefits of face-to-face interaction. Since students can express their thoughts without interruption, they have more time to reflect on and respond to class materials and their classmates than in a traditional classroom.

Research shows that the time required to initially design an asynchronous course is comparable to that of a traditional synchronous course. However, most asynchronous courses have the potential to reach far more students than a traditional course and course-wide updates or modifications can be disseminated far more quickly and efficiently than traditional lecture models.

Schifter notes that a perceived additional workload is a significant barrier to faculty participation in distance education and asynchronous learning, but that perception can be mitigated through training and experience with teaching in these environments.

Another advantage of asynchronous learning (and, as technology develops, many synchronous learning environments) is that there is a record of nearly everything that occurs in that environment. All materials, correspondence, and interactions can be electronically archived. Participants can go back and review course materials, lectures, and presentations, as well as correspondence between participants. This information is generally available at any time to course participants.

Virtual World Distance Learning

Asynchronous E-learning includes all forms of electronically supported learning and teaching, including educational technology. The information and communication systems, whether networked learning or not, serve as specific media to implement the learning process. This often involves both out-of-classroom and in-classroom educational experiences via technology, even as advances continue in regard to devices and curriculum. Abbreviations like CBT (Computer-Based Training), IBT (Internet-Based Training) or WBT (Web-Based Training) have been used as synonyms to e-learning.

E-learning is the computer and network-enabled transfer of skills and knowledge. E-learning applications and processes include Web-based learning, computer-based learning, virtual education opportunities and digital collaboration. Content is delivered via the Internet, intranet/extranet, audio or video tape, satellite TV, and CD-ROM. It can be self-paced or instructor-led and includes media in the form of text, image, animation, streaming video and audio.

It is commonly thought that new technologies can make a big difference in education. In particular, children can interact with new media, and develop their skills, knowledge, and perception of the world, under their parents' monitoring, of course. Many proponents of e-learning believe that everyone must be equipped with basic knowledge in technology, as well as use it as a medium to reach a particular goal.

Groupware and the Virtual Classroom

The tool suites that incorporate VOIP are business-oriented groupware products like Groove and Documented and pedagogical "virtual classrooms" like those offered by LearnLine, HorizonLive, and Inter-wise. The groupware products contain many of the tools found in typical course management systems (e.g., file storage, whiteboards, threaded discussions, team spaces, and calendars), whereas the focus of the virtual classroom is synchronous teacher/student and student/student interaction. Although the GUIs of these respective tool suites reflect their different orientations, they are alike in that they both provide VOIP and application-sharing features. Consequently, both types of tool sets are able to support small learning teams who want the speed and efficiency of synchronous VOIP work sessions as well as the ability to conduct Web searches, review documents, and build documents collaboratively.

My own operational experience is with Groove, the brainchild of Lotus Notes innovator Ray Ozzie. The course design team that I work with uses Groove as the learning space for four-person student teams to develop their critical thinking skills. The students use either phone conferencing or Groove's VOIP to support two weekly online team meetings (each week for 4 weeks), during which they review and build a number of conceptual maps. The knowledge mapping tool that they use (MindManager) is a shared application that is embedded in Groove or can stand alone. By working online with a shared view of MindManager maps and an audio connection (either a conventional telephone conference or Groove's VOIP), the students orient themselves to the problem-solving mission, analyze and sequence the tasks they need to perform, organize who does what, perform meta-cognitive reflections, arrive at a solution, and produce a final report. Each of these phases is represented visually in and by MindManager.

For example, in a course on collaborative critical thinking, the students must solve an information systems security problem. The schedule for the second week appears as a MindManager map and directs the students to conduct a series of MindManager Web conferences, first with two-student sub-teams and then with the whole team. During these conferences, they discuss and collaboratively build initial and goal state maps of the problem they must solve. The initial state map visualizes what students know about the problem. The goal state map represents what they are able to specify about a desired solution. In the following week, the students Web conference again, reflect upon the "gap" between the initial and goal that organizes their problem-solving efforts for the rest of the course.

An instructor wishing to ease into this kind of synchronous learning work might start with Microsoft NetMeeting, a free tool that provides VOIP and application sharing and that is relatively easy to use. This well-reviewed product is now integrated with MSN Messenger, an instant messenger tool with a file share function. One might start down the road to synchronous learning by having student teams download, explore, and report on the tools themselves. This effort will produce a level of comfort (for both instructors and students) that can serve as a foundation for more complex team learning efforts. Structured as a blend of individual work and synchronous collaboration, such experiences will help learners manage complex projects, perform collaborative research and writing, and solve difficult problems in much the same way that these tasks (increasingly) are handled in the so-called "real world" beyond academe.

ORGANISATION AND ADMINISTRATION STRUCTURE

The OU provides university education to those wishing to pursue higher education on a part-time and/or distance learning basis, including people with health disabilities, who are officially a priority group for the university, nearly 13,000 OU students have health disabilities. The British Government has also tasked the Open University to continue the work of the Council for National Academic Awards (CNAA) when it was dissolved. The CNAA formerly awarded degrees at the polytechnics which have since become universities

ORGANISATIONAL STRUCTURE AND PROJECT TEAM
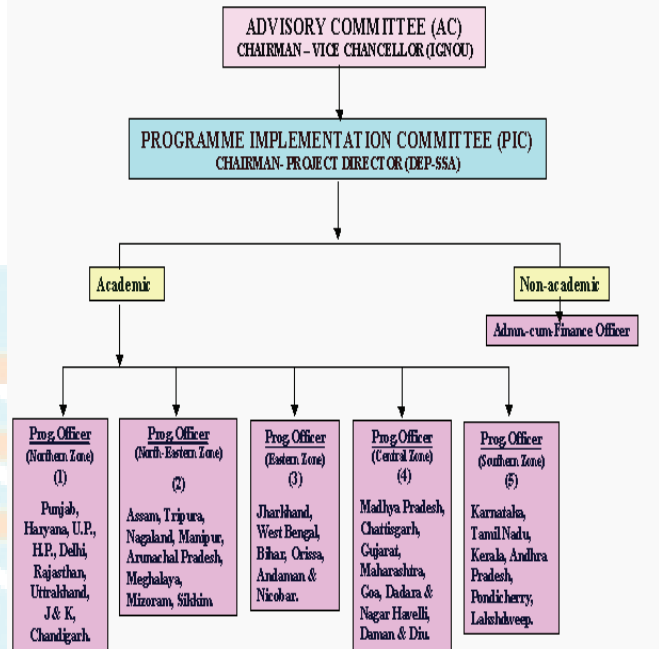
Objectives

The When designing the Open Universities Development Learning, "results of more than 30 years of research on open learning were applied to the distance learning programs".

The criteria included:

1. They are based on clearly established learning needs and built around succinct statements of outcome.

2. They are based on a variety of teaching and learning strategies and methods that are activity based.

3. Effective distance learning materials are experiential they address the learner's life experience.

4. Quality distance learning programs are participatory in that they emphasize the involvement of the learner in all facets ofprogram development anddelivery.

5. Successful distance learning programs are interactive and allow frequent opportunities for participants to engage in adialogue with subject matterexperts and other learners.

6. Learner support systems are anintegral part of any successful distance-learning program.

The Indiana Partnership for Statewide Education (IPSE) (2000) proposed "Guiding Principles for Faculty inDistance Learning:" • Distance learning courses will becarefully planned to meet theneeds of students within uniquelearning contexts and

Environments:

• Distance learning programs are most effective when they include careful planning and consistency among courses.

• Distance learning courses will beperiodically reviewed andevaluated to ensure quality,consistency with the curriculum,currency, and advancement of the student learning outcomes

• It is important for faculty who are engaged in the delivery of distance learning courses to take advantage of appropriate professional developmental experiences.

• Faculty will work to ensure thatincentives and rewards fordistance learning coursedevelopment and delivery are clearly defined and understood.

• An assessment plan is adapted ordeveloped in order to achieveeffectiveness, continuity andsustainability of the assessmentprocess. Course outcomeassessment activities areintegrated components of the assessment plan.

• Learning activities are organized around demonstrable learning outcomes embedded in course components including; course delivery mode, pedagogy, content, organization, and evaluation.

• Content developed for distance learning courses will comply with copyright law.

• Faculty members involved in content development will beware of their institution'spolicies with regard to content ownership.

• The medium/media chosen to deliver courses and/or programs will be pedagogically effectual, accessible to students, receptive to different learning styles, andsensitive to the time and place limitations of the students.

• The institution provides appropriate support services to distance students that are equivalent to services provided for its on-campus students.

• The institution provides its students at a distance withaccessible library and otherlearning resources appropriate tothe courses or programsdelivered via technology. Itdevelops systems to support themin accessing and using theselibrary and other learning resources effectively.

• It is important to provide theappropriate developmentalexperiences for faculty who areengaged in the delivery of distance learning experiences.

• The institution implements policies and processes by whichthe instructional effectiveness ofeach distance-learning course misevaluated periodically.

• Timely and reliable technical support is vital to the success of any distance-learning program.

• It is recommended that a systemof faculty incentives and rewards be developed cooperatively by the faculty and the administration, which encourages effort and recognizes achievement associated with the development and delivery of distance learning courses.

• The institution will communicate copyright and intellectual property policies to all facultyand staff working on distance learning course development and delivery.

• The institution complies with state policies and maintains regional accreditation standards in regard to distance learning programs.

Commonalities between these principles and those suggested by other authors and organizations may be readily perceived.For instance, careful planning and theneed for teacher training are cited by Bates, and the emphasis on the unique needs of students in avariety of contexts is mentioned by Foley. The IPSE principles make an important contribution by highlighting need for consideration of copyright law and policies, intellectual property ownership, faculty incentives, and state policies and accreditation standards.

Teaching Methods

The OU uses a variety of methods for distance learning, including written and audio materials, the Internet, disc-based software and television programs on DVD. Course-based television broadcasts by the BBC, which started on 3 January 1971, ceased on 15 December 2006. Materials are composed of originally authored work by in-house and external academic contributors, and from third-party materials licensed for use by OU students. For most modules, students are supported by tutors ("Associate Lecturers") who provide feedback on their work and are generally available to them at face-to-face tutorials, by telephone, and/or on the Internet. A number of short courses worth ten credits are now available that do not have an assigned tutor but offer an online conferencing service (Internet Forum) where help and advice is offered through conferencing "Moderators".

Some modules have mandatory day schools. These are day-long sessions which a student must attend in order to pass the module. One example of such a module is the K301 "Advanced Certificate in Health Promotion "which has two mandatory day schools/workshops, focusing on communication skills, counseling and practical issues, related to health promotion. Nevertheless, it is possible to seek excusal upon the basis of ill-health (or other extenuating circumstances), and many courses have no mandatory face-to-face component.

Similarly, many modules have traditionally offered week long summer schools offering an opportunity for students to remove themselves from the general distractions of their life and focus on their study for a short time.

Over the past ten years the University has adopted a policy of separating residential modules from distance-taught modules. Exemption from attendance at residential schools, always as an Alternative Learning Experience (ALE), is sometimes available for disabled students and others who find it impossible to attend in person The OU now produces mainstream television and radio programming aimed at

bringing learning to a wider audience. Most of this programming, including series such as Rough Science and "Battle of the Geeks", are broadcast at peak times, while older programming is carried in the BBC Learning Zone. But in 2004 the OU announced it was to stop its late night programs on BBC2, and the last such program was broadcast at 5.30am on 16 December 2006. The OU now plans to focus on mainstream programs.

Teaching at the OU has been rated as "excellent" by the Quality Assurance Agency for Higher Education. The English national survey of student satisfaction has twice put the Open University in first place.

In October 2006 the OU joined the Open educational resources movement with the launch of OpenLearn. A growing selection of current and past distance learning course materials will be released for free access, including downloadable versions for educators to modify, plus free collaborative learning-support tools.

The OU is researching the use of virtual worlds in teaching and learning, and has two main islands in Second Life. These islands are called Open University Island and OU village. They are separated by a third region "OU Ocean." In May 2009 these regions formed the basis of a case study by Linden Lab, the company which owns Second Life.

As of mid 2010, the University led the list of contributing universities in the number of downloads of its material from the educational resources site iTunes U, with downloads of over 20 million.

Quality Assurance Agency for Higher Education (QAA)

The stated mission of the Quality Assurance Agency for Higher Education (QAA) is to 'safeguard standards and improve the quality of UK higher education'. Established in 1997 through the transfer of functions and staff from the former Higher Education Quality Council and the quality assessment divisions of HEFCE and HEFCW, this independent agency works to ensure that higher education qualifications in the United Kingdom (UK) are of a sound standard. It protects the public interest by checking how universities and colleges maintain their academic standards and quality. This work is supported by a range of guidance developed in cooperation with the higher education sector, principal among which is the UK Quality Code for Higher Education (the Quality Code).

QAA is the body entrusted with advising the Privy Council on which institutions should be granted degree awarding powers and the right to be called a university. Since 2011 QAA has been designated by the UK Border Agency (UKBA) to conduct educational oversight of higher education providers, to enable them to apply for 'highly trusted sponsor' status under UKBA Tier 4 regulations. Providers having, or acquiring, this status are entitled to recruit overseas students into the UK.

QAA also regulates the Access to Higher Education Diploma, a qualification that enables individuals without A-levels or the usual equivalent to enter higher education. It does

this by monitoring the Access Validating Agencies that award the Diploma.

QAA's mission to safeguard standards and improve quality is supported by four strategic aims, which may be summarized as follows: to address the needs of students and be valued by them; to safeguard standards in an increasingly diverse sector; to drive improvements; and to improve public understanding of UK higher education.

Open educational resources (OERs)

Open educational resources (OERs) are freely accessible, openly formatted and openly licensed documents and media that are useful for teaching, learning, education, assessment and research purposes.

Open educational resources include full courses, course materials, modules, learning objects, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge. OER are defined as teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others. Resources for the implementation of open education include intellectual property licenses that govern open publishing of materials, design-principles, and localization of content.

Since OERs are resources meant to be used for education rather than accredited educational institutions, they can neither award degrees nor provide academic or administrative support to students

Assesment Methods

Open University modules are often assessed using an equal weighting of examinations and coursework. The coursework component normally takes the form of between two and seven tutor marked assignments (TMAs) and, occasionally, may also include up to six multiple-choice or "missing word" 100-question computer marked assignments (CMAs). The examinable component is usually a proctored three-hour paper regardless of the size of the module (although on some modules it can be up to three three-hour papers), but an increasing number of modules instead have an EMA (End of Module Assessment) which is similar to a TMA, in that it is completed at home, but is regarded as an exam for grading purposes.

Modules results are sometimes issued on a graded basis, consisting of pass grades 1 (threshold 85%, a distinction), 2 (70"84%), 3 (55"69%) & 4 (40"54%), and fail (below 40%). This grade is calculated as the lower of the overall continuous assessment score (OCAS) and overall examination score (OES).

These grades can be weighted according to their level, and combined to calculate the classification of a degree. An undergraduate degree will weight level 3 modules twice as

much as level 2, and in postgraduate programs all M level modules are equally weighted.

It is good practice to provide all students with early information about the assessment strategy for their module or course. Disabled students can then think about any difficulties they might face and identify their needs. The information provided should include assessment timetables, locations, activities assessed, methods of assessment, and types of assessment (i.e. formative or summative), alternative assessment methods and alternative assessment activities.

The adjustments that might be appropriate depend on the assessment method, the needs of the student and the learning outcomes. Sheffield Hall is University's Assessments website provides useful detailed guidance on possible adjustments for different types of assessment, and on accessible and inclusive assessment design.

A student with disabilities may well have already worked with a learning support tutor or other staff to find a set of assessment strategies that suits their learning style. For example, students with specific learning difficulties may find it helpful to use diagrams or mind maps when planning an essay, or they may have various ways of coping with time restraints. However, other individual issues may still arise, especially with text-based assessments where questions may confuse or answers take too long to write for a student to show their knowledge. The student may arrange to have support from a scribe (amanuensis) or a reader, or both. Alternatively they may produce their written answer using a computer or other specialist equipment.

The main issues for blind and visually impaired students undertaking assessments are the availability of accessible formats and human or technical support. Students may need assessment questions and materials in alternative formats. They may require the assistance of an amanuensis or the use of assistive technologies. Using these strategies invariably takes longer and may necessitate a more flexible approach, including additional time.

Students who are prelingually deaf or whose first language is BSL may have difficulties extracting meaning from written text and formulating answers in English. Deaf students may do well in written coursework assignments where they can have the support of an English language tutor, but not be able to demonstrate their learning in written work under timed examination conditions. Many find multiple-choice or long complicated examination questions difficult to understand. Assessed presentations may also disadvantage deaf students if they are not provided with appropriate reasonable adjustments. Even then, if the assessment criteria include presentation style, they may be unfairly disadvantaged. A solution might be to have the questions signed, or the responses signed and translated or written up.

Mental health problems can be exacerbated by increased tension associated with assignments. Agreeing suitable assessment adjustments with the student in advance may help to avoid unnecessary mental distress in the run up to deadlines and exams. However, you may need to take a flexible approach and be prepared to make other arrangements as necessary.

The main problem for those with mobility and dexterity difficulties is accessibility, time and tiredness. However, as everyone has their own method for coping in these situations it is important to make adjustments that take into account personal preferences.

Procedures to claim extenuating circumstances can be very stressful for any student, particularly if they have to wait some time for a decision to be made on whether their extenuation will be accepted and their work marked. For students with disabilities this delay can be particularly difficult to deal with because of the need to plan their work load and support arrangements.

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