Towards a Distance Education Model in Maldives

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Abstract
This research looks into developing a distance education model for Maldives. This paper gives an overview of the literature that leads to the model and a brief discussion on the design of the model at its current phase.

Since the introduction of distance education in 19th century, several research work have been undertaken to outline the different perspectives of distance education. Several considerations have to be made in order to provide an efficient and effective distance-learning package. Some of the main aspects to focus are the media choice, needs of the market, characteristics of the consumers, size and technology, and the institutional framework. This research will aim at finding a viable way to provide distance education in Maldives. The research will look into the possibilities of using distance education in Maldives to move towards the goal of “Education for ALL”.

An overview of literature is carried to understand the research problem. A background into Maldives is done in order to rationalise the research as well as find out how and where distance education can be used. The background information included the demography of Maldives, current physical infrastructure and planned developments, and some aspects of social infrastructure. The small population sizes of the islands inhibit infrastructure developments as this cause diseconomy of scale and transport limitations between islands makes it impossible to capitalise on the use of regional centres. Hence the research cannot be based on assumptions of infrastructure developments but rather should exploit the current infrastructure. An overview of current infrastructure is included to realise the options with planned developments that can be used. The current infrastructure analysis with planned developments helped in identifying the media choices for the proposed model. One aspect of social infrastructure is also considered in this research, which is education. Since the research is about distance education in Maldives it is essential to identify the issues like access to education, enrolment and drop out rates by level as well as regions to rationalise the use of a distance education model in the country.

Further literature research is done to understand what media is used in distance education and how they are used in different parts of the world. Media discussion covers all the media used in distance education outlining their strengths and weaknesses. Furthermore investigations into specific distance learning institutions are carried out to understand what features are suitable for which situations. This investigation is focussed into delivery systems, media use, support systems, and target population. The countries from which these institutions are selected have similar economic, social and cultural conditions as Maldives.

The literature overview provided insights into deciding on the attributes of the model as well as the media choice. The current distance education programmes also provided an understanding of what media has been used in the islands of Maldives. These include print, radio, audiocassettes, face-to-face tutorials, and teleconferencing. In addition to focussing on the strengths and weaknesses of different media, Maldives has to capitalise on the available media at different levels. For example computer-based instruction with Internet could be used in parts where possible, while computer based instruction using computer networks at schools and other planned kiosks could compensate in other areas. Consequently Maldives should look into developing a system where media is selected according to availability and which allows easy transfer from one medium to another if and when more advanced telecommunications capability is introduced. The use of teleconferencing in previous distance education programmes and the increasing number of computers in schools and other government owned kiosks leads to a combination of these media a good choice. Teleconferencing cannot be used, as it needs human resources at the regional level. The model looks at ways of minimising human resources however it is unreasonable to totally eliminate it. Hence computer networks, Internet wherever possible, and CD ROMs will be used as media choices.

The model will be developed as three different modules. These include the student module, the regional module, and the headquarters module. The student module will be sent to each student, the regional module will be set up in each of the regional centres, and the headquarters module resides at the central location.

The student module will be burnt into CD ROMs and sent to students. The students can either install the software into their own computer or use computers at the regional centres. Once the software is installed a profile for the student will be created. This will be stored in the hard disk or the regional computer network depending on where the student installed it. The profile will be used to record the student’s progress and give feedback. Other components of the module include the subject matter, database, and engine. The subject matter
resides on the CD ROMs or on the network. The database which resides in students’ computer or network will have many functions including recording student behaviour, providing navigation suggestions, recording problems, solutions. All these components will be integrated through the engine that will also provide the interface for the student. The student will have the flexibility of recording their profile on to a floppy disk. They could then take the floppy disk to the regional centre and upload the data. Any feedback could then be downloaded from the regional centre’s network to the floppy and back to student’s computer. If the students are using the regional centres computers then they will logon to the network and their profile will be automatically updated as they progress.

The regional module will be the intermediary between the student module and the headquarters module. All the updates from the headquarters module will be uploaded into the regional module, which will then be transferred into the student module and vice versa. The specific components of this module have yet to be formulated that will focus into how communication will be done between these three module and what components used.

The headquarters module controls the whole system and provides feedback and solutions, which are not built-in to the other two modules. The headquarters module will have human intervention to assess the students’ progress and provide feedback, which are not built into the system. The headquarters module will have an authoring tool that will enable the subject matter experts or tutors build the intelligent tutoring system for the student module. As the study progresses more specific components of this module will be formulated. The intelligent tutoring system will include answers to standard questions, identifying student’s weaknesses using built-in assessment, etc. An authoring tool is developed for the subject matter experts. The authoring tool will have the flexibility of allowing the subject matter expert to design their subject in different formats. It will allow the use of different media with limitations based on the capability of regional networks.

Once the model is developed it will be tested in Maldives. Since computer networks and Internet already exist in Maldives the system can be tested at different parts of the country. The headquarters module will be installed in the capital at the Centre for Open Learning in Maldives College of Higher Education. Regional modules will be installed in the two ends of the country. One in the regional centres of the Centre for Open Learning in the southern most atoll and the one in the Northern Secondary School. Since there are no regional centres in the northern most atoll Northern Secondary School will be used as a test centre.

Bibliography

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