The Potential For Integrating A Distance-Learning Initiative Into The Curriculum Of A Saudi Female Private College

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Abstract: Distance learning is a powerful source for providing education in developing countries. It tends to be an attractive option in countries where a rapidly-growing population is dispersed over a large geographical area. This is more or less the case in Saudi Arabia, which could benefit from maximising the use of existing physical and human resources whilst extending the geographical reach of education. This paper aims to investigate the potential for integrating a distance-learning initiative into the curriculum of Saudi female private colleges.

The research used the survey and in-depth interviews as main source of gaining data. The paper revealed interesting findings such as time and travel constraints were at the top of the list of barriers for students. It has also emerged from the interviews that there were tentative plans to develop a distance learning curriculum in the future. There seems, however, concerns regarding the way distance learning qualifications are currently perceived by the Ministry of Higher Education in this country.

I.   Introduction

The rate of population growth in Saudi Arabia is amongst the highest in the world. Whilst estimates in the literature vary, a review of seemingly reputable studies (e.g. Aart, 2004; FAO, 2004; UNDP, 2006) indicates that the annual population growth is around 3-4%. Moreover, it is estimated that almost half of the Saudi population is currently under the age of twenty years (Saudi Arabia Market Information Resource and Directory, 2007). Such an unprecedented population expansion and a desire on the part of the Government to increase the literacy rate have placed tremendous pressures on the country's educational system. Therefore, providing access to tertiary education as well as meeting the educational needs of a growing population of students are increasingly recognised as critical challenges that need to be addressed as matter of urgency (Saudi Ministry of Higher Education, 2008).

Evidently, the use of distance learning (DL), particularly the recent application of internet-based learning, has been recognised around the world as a viable response to concerns related to increasing number of students, scarcity of available resources and hence limited access to education (e.g. Brown, 1999; Perraton, 2000). As will be highlighted in the literature

learning has never been provided in my college, i.e. Al-Ola College[1]. This is a private academic institution that was established in Saudi Arabia a decade ago with the aim of providing top-quality tertiary education exclusively for women. It would be thus of interest to learn why DL has not yet been considered in Al-Ola College, in spite of its potential attractiveness and effectiveness in catering for educational expansion and college improvement? Moreover, an in-depth examination is needed in order to explore what benefits/obstacles the integration of a DL initiative into the Al-Ola's curriculum could bring? In addition, how acceptable is DL in the Al-Ola College from the perspective of both students and the college? Finally, how suitable is web-based instruction (WBI) for delivering DL in Al-Ola College? It is reasoned that these questions should be applied to a new empirical initiative that utilises a large-scale survey of potential DL students, as well as in-depth interviews with the college's senior management.

Having briefly introduced the research context as well as the research questions, the following section draws on relevant literature before presenting the primary research.

II.   Literature Review

Firstly, this review attempts to succinctly introduce the notion of DL along with its potential merits and drawbacks. Following this, there will be a critical review of previous studies and endeavours in the field of DL in Saudi Arabia.

1. The Concept of Distance Learning

DL is essentially a means of providing access to educational programmes for students who are separated by time and/or physical location from a tutor (Keegan, 1983, 1990; Moore and Kearsley, 1996). Perraton (2000) maintained that the idea of DL began in 1963; when Michael Young and Brian Jackson established the National Extension College as a pilot for an open university. Nevertheless, whilst the Open University was the world's first university to teach only at a distance, it appears that the basic idea - in the form of correspondence education - had been around since the first half of the 19th Century (Rowntree, 1992). Since then, the medium has changed from pencil and paper correspondence courses to real-time internet-based

review, the idea of DL is not something new to Saudi Arabia as there has been recent interest and subsequently several applications within the country. However, this mode of the world due to several inherent advantages of DL. The work of Dodds et al. (1972) on the National Extension College, has highlighted three main advantages. The first one relates to its potential economic attractiveness as no lecture theatres are necessary and that college staff could be responsible for many times more students than they could ever accommodate in a conventional educational setting. Secondly, DL offers an opportunity for flexible and self-paced learning as people who have got jobs can study at their own convenience, without having to leave their jobs and/or devote themselves to full-time education. Thirdly, DL can operate over long distances, cater for widely scattered student bodies and hence has the ability to reach new audience who might suffer from time constraints.

On the other hand, it should be noted that DL is not a panacea, and that its success depends on a range of factors. Based on research conducted by Dillon and Gunawardena (1995) and Leidner and Jarvenpaa (1993), three main success factors are critical for effective DL - technology, tutor characteristics and student characteristics. Firstly, with regard to technology, Lopez and Nagelhout (1995) suggested that reliability, quality, medium richness and cost are amongst the technical aspects to be considered. A central part of the medium's richness relates to interactivity. In this regard, it can be argued that one of the strengths of interactivity in an internet-based environment (i.e. WBI) is the ability to engage by providing rapid interaction and feedback to students. In addition, internet technology is seen as an efficient and cost-effective technology for delivering DL (McIntyre and Wolff, 1998). Indeed, the choice of technology is a crucial element when designing a DL course because it - along with other factors such as the number of learners involved - would determine the economic viability of DL vis-à-vis conventional education (Hawkes and Cambre, 2000; Rowntree, 1992; Rumble, 1993; Wagner, 1983). Bates (1995) proposed a somewhat comprehensive and useful framework, namely the ACTION model, for the selection of an appropriate technology for teaching. The acronym ACTION stands for access, cost, teaching/learning, interactivity and user-friendliness, organisational issues, novelty and speed. It could thus be of interest to examine empirically how suitable the WBI option (or internet technology) is for the case of Al-Ola College in terms of the theoretical ACTION framework.

With regard to tutor characteristics, Collis (1995) argued that "it is not the technology but the instructional implementation of the technology that determines the effects on learning" (pg. 146). Webster and Hackley (1997) further explained that the characteristics that largely influence learning outcomes are the tutors' attitude towards technology as well as their control and knowledge of the technology as they are typically expected to develop and run the DL courses in an effective manner. Moreover, it appears that among the most common criticisms against DL is that students often feel isolated as they do not have the classroom environment in which they could interact with the tutor. Moreover, DL usually does not offer immediate courses. Regardless of the medium, the application of open and DL has grown to a large-scale around technology, and internet-based applications in particular, has opened up the possibility of personal and group inte raction in DL. Thus, specially-trained tutors with good control and knowledge of the WBI are more likely to be capable of exhibiting an interactive teaching style that encourages interaction between the DL students amongst themselves and with the tutor (Mitchell, 1993). A review of DL literature however reveals that amongst the reported obstacles that hinder tutors from participating in teaching online, DL include lack of support by the faculty, lack of scholarly respect in the areas of promotion and tenure, as well as unavailability of funds for training, setting, using and maintaining technology to support DL services (Baldwin, 2001; Lee, 2001; Northrup, 1997; Schifter, 2000; White and Weight, 2000). In this regard, Marrs (1995) argued that "without this [institutional] support, distance education is at risk of becoming a peripheral activity, without commitment from or significance to the institution" (pg. 21). Finally, with regard to student characteristics, it has been suggested that factors such as prior experience with DL, self-discipline and having a high-speed internet access at home affects students' attitudes towards WBI (Colley et al., 1994; Mills and Paul, 1993; Volery and Lord, 2000; Wood, 2002). Furthermore, Galusha (1999) and the Institute for Higher Education Policy (2000) report that some of the concerns that have been negatively affecting public perceptions with regard to DL concern the quality of students who enrol on DL courses, the quality of education provided in DL courses and the quality of DL graduates. The latter concern might be due to the fact that DL may not be acknowledged by all employers.

2. Distance Learning in Saudi Arabia

Generally speaking, the demand for education in developing countries tends to be far greater than the resources providing it (Khan et al., 2001; Moore and Kearsley, 1996). Looking into the case of Saudi Arabia, Al Saif (2005) asserted that many Saudi universities face the problems of excessive enrolment and a lack of available facilities to accommodate such an increased demand for tertiary education. It is, therefore, reasonable to suggest that the DL option is one way of addressing problems stemming from the increased student enrolment. When looking into the history of internet diffusion in Saudi Arabia, it is noted that a widespread adoption of internet applications started in the late 1990s and that universities were among the first users of this technology (Al-Shawi and Al-Wabil, 2008). Another recent study has maintained that faculty staff in science-based disciplines (e.g. computer science, engineering, physical and medical sciences) have demonstrated higher internet usage when compared to staff in other academic disciplines (Al-Wabil et al., 2008). Apparently, an important issue for providing DL is the electronic connectivity of the institution with the outside world and with other participating universities (Lockwood, 1995). As all Saudi academic institutions are already interconnected and have links with the outside world via the internet, they can

feedback as the student has to wait for feedback until the tutor has reviewed his/her work and responded to it (Keegan, 1990; Serwatka, 1999). Nevertheless, advances in telecommunication intermixing of genders is not allowed within most educational settings (Ali et al., 2003; Mirza, 2006). Saudi society is also a very conservative one in which women are not allowed to drive cars, and hence it is difficult for a single woman to travel on her own should she want to continue her education in another city (Al Rawaf and Simmons, 1991; Al Sudairy, 2007). Therefore, DL programmes - offered by Al-Ola College - might help Saudi women to pursue a higher education in the convenience of their own homes, in a way that does not conflict with the conservative and/or religious traditions of Saudi society.

However, it is often mentioned that the Saudi educational system is not advancing sufficiently to match global standards in terms of information technology and the quality of education (Khan, 2000; Muysken and Nour, 2006). For example, recent studies by Al-Asmari (2005) and Al-Jarf (2007) on the current status of e-integration within Saudi higher education has concluded that the quantity and quality of offered online courses are inadequate when compared with global standards. Identified reasons for this include lack of funds, motivation, training, administrative support and infrastructure in Saudi universities. The almost non-accredited status of DL qualifications is another known barrier in Saudi Arabia (Ali et al., 2003). In May 2008 however, the Saudi Ministry of Higher Education set up the National Centre of E-learning and Distance Learning in order to oversee the change and prepare e-learning materials. Until now, nine Saudi universities out of a total of nineteen have already expressed interest in implementing the DL system, whilst most Saudi universities are expected to start providing WBI by the year 2009 (Abdul Ghafour, 2008). Al Sudairy (2007) also reported that the Ministry of Higher Education has recently signed a training contract with Meteor Malaysian Company in order to train a total of 130 academics on e-learning and on the construction of a DL curriculum. It is noted however that King Abdulaziz University has been a pioneer in experimenting with DL in Saudi Arabia since the 1980s (Al Rawaf and Simmons, 1991). This university has recently established the first Deanship of Distance Education in the country in order to run DL programmes - WBI in particular - for its students, most of whom live in remote areas and do not have any transportation to attend on-campus courses (King Abdulaziz University, 2008). Since the prospect of DL has not yet been considered by Al-Ola College, it could be argued that this research is a timely and highly relevant endeavour. With this in mind, the following section discusses the proposed methodologies to answer the aforementioned research questions, and thereby presents potentially new insights for the existing body of knowledge.

II.   Research Methodology

The aim of this section is to highlight briefly the adopted

provide collaborative WBI programmes with minimal expenditure. Moreover, it should be noted that, for religious reasons, the Saudi educational system is a segregated one as the of the ethical issues that has arisen from this research.

1.   Research Approach

The research strategy, whilst mixed, adopts a predominantly qualitative approach. According to a source at Oklahoma State Universit y (2001), qualitative research is advantageous as it allows for an in- depth examination of situations in which complex questions are posed. With this in mind, the qualitative approach was thought to best fit the aim of investigating the prospect of DL in Saudi female colleges through examining the case of Al-Ola College. Notably, qualitative research typically uses a case study approach, meaning that data analysis focuses on one phenomenon, which the researcher has chosen to examine in depth, regardless of the number of sites, participants or documents involved in the study (McMillan & Schumacher, 1993). Case studies have been cited in the research methodology literature as an appropriate approach when the researcher has no control over events and is not able to manipulate relevant behaviour (Ragin & Becker, 1992). Whilst adopting a case study approach can yield a rich understanding of the context of the research and the processes to be studied (Morris & Wood, 1991; Yin, 2003), it is often criticised for its lack of generalisability (Scapens, 1990; Stake, 1995). Nevertheless, whilst the research findings are expected to be of relevance and value to Al-Ola College, they may still be partially generalisable, as they might be relevant to other female academic institutions, especially those which operate in rapidly developing countries and/or in highly conservative societies like that of Saudi Arabian.

2.   Research Design

In order to enhance the validity of this research, it was decided to use a variety of evidence, i.e. data triangulation (Miller & Brewer, 2003; Patton, 1990). Apparently, data triangulation is often considered as an important feature of an exemplary case study (Remenyi et al., 1998). For the purpose of this research, the main data collection methods were surveys of potential DL students and interviews with senior management; that were cross-checked with documentary evidence whenever possible.

Whilst designing an effective survey could involve a great deal of time and effort, using surveys has many advantages when compared with interviewing. For instance, surveys are relatively cost-effective in providing access to a large sample, and they also provide a greater assurance of anonymity. In addition, they are relatively easy to administer, and the standardised terms facilitate the analysis process (Bailey, 1978; Saunders et al., 2003). Nevertheless, despite the various types of incentives applied by various survey researchers, participants often find little incentive to complete the survey, which eventually results in a low response rate. Out the various ways of administering surveys (e.g. telephone, online, mail, etc.), in-person surveys are likely to yield the highest response rate (Church, 1993; Robson,

research approach, as well as to provide a description and justification for the research design. Following this will be a discussion on the limitations of this research as well as some

2013. The event was attended by approximately 400 Saudi working and non-working women, as well as some of the college's current students, all of whom had completed their high-school education hence were considered as potential DL candidates.

In addition to surveys, six members of the Al-Ola College's Board of Directors agreed to be interviewed on a face-to-face basis to discuss the prospect of integrating a DL initiative into the curriculum of the college. This research sample, which included the College Dean, is considered relevant because these individuals are in charge of setting the college's policy and making strategic decisions. As indicated earlier, gaining senior management's buy-in and back-up is a crucial success factor for any DL programme. It is interesting to note that only one of them had prior experience of DL as a former student. Unfortunately however, due to the research's time constraints and the fact that the data collection period coincided with the college's final examinations period, it was impossible to interview potential DL tutors. Although the in-depth interview approach is often claimed to be 'the best' qualitative method for gathering information (King, 2004), some argue that it can be time-consuming when compared with surveys (Easterby-Smith et al., 2001). For the purpose of this research, semi-structured in-depth interviews seem attractive in that they could ensure a focused approach yet offer flexibility in terms of modifying the questions to target new ideas raised by the interviewee. Additionally, it is believed that adopting a semi-structured approach would be beneficial in interviewing senior people with different backgrounds as well as varying views and knowledge of the subject (Robson, 2002; Thiĕtart et al., 1999). With regard to data analysis, given the small number of interviews (six interviews with a total duration of approximately six hours), investment in terms of money, time or effort needed for using any qualitative analysis software was not feasible. Instead, the researcher analysed the results of the few interviews manually by identifying the similarities and differences between responses from interviewees. It is believed that by adopting this qualitative approach to data analysis, one could seek to relate the individual response to the 'big picture' set by the research questions (Hart, 2005).

3. Research Ethics

Certain themes addressed in the interviews may result in respondents wishing to avoid certain questions. In addition, the possibility exists that some respondents may provide the type of answers that they think the researcher may want to hear. Therefore, care was taken to encourage all interviewees to answer freely, where no specific answer was seen as being right or wrong. Moreover, it is imperative here to take into account and observe relevant ethical practices. Renzetti and Lee (1993) argued that investigators must ensure the anonymity of respondents, i.e. at the start of the interview, the

2002; Singer et al., 2000). Therefore, a total of 380 in-person surveys were distributed and collected on the same day at a large annual event that was held at Al-Ola College on the 10th May, will express their views more openly. For the purpose of this report, pseudonyms (e.g. Interviewee A, Interviewee B, etc.) were used to ensure anonymity of the interviewees. Moreover, there were other ethical factors that could have invalidated the data collection and analysis. For example, fabrication, fraudulent materials and omissions are without doubt unethical, in addition to leading to a lack of internal or external validity (Briggs & Coleman, 2007). Among the factors that may limit the validity of the response of surveys' and interviews' participants are leading, poorly framed or over-complicated questions.

3. Research Limitations

Although every care was taken to limit various potential sources of bias, qualitative approaches are often regarded as being subjective endeavours that always carry with them the danger of bias (Bell, 2005). Perceptions with regards to DL were not measured by objective tests, which are often the focus of predominately quantitative-based research. In addition, due to constraints associated with time and cost, it was impossible to use a large or more representative population sample. Apparently, case study research suffers from an inherent limited ability to generalise the findings due to small sample size. Borrowing from the assumptions of interpretive case studies, a small sample was selected in order to obtain in-depth information (Denzin & Lincoln, 2003; Travers, 2001). In spite of such constraints, the in-person survey and the few semi-structured interviews undertaken produced significant data, which are analysed and presented next.

III. Research Findings

The aim of this section is present research findings that were derived from the surveys of potential DL students, followed by the results of the six interviews that were conducted with senior management. Next, the suitability of WBI for delivering DL in Al-Ola College is assessed using the ACTION methodology.

1. Survey Results

With the consent of the College Dean, a total of 380 in-person surveys were distributed in a major event which was attended by both Al-Ola College students and Saudi female outsiders. The issues raised in the survey questions were essentially derived from the literature which was reviewed in Section 2. With the exception of the first two open-ended introductory questions, the survey questions utilised 5-level Likert items (i.e. strongly disagree, disagree, neutral, agree, strongly agree). Prior to inviting respondents to fill in the survey a pilot test, in which two Academics of Al-Ola College were asked to fill in the survey in order to examine the level of clarity, was conducted. The questions were subsequently translated into Arabic, and the

interviewer needs to emphasise that the respondent's identity will not be divulged in the report. This will help to gain the respondent's confidence and increase the likelihood that they surveys, only 129 were completed and returned (i.e. a response rate of 34%). Based on the collected responses for the first two questions, Figure 1 illustrates the percentage split of the participants, according to their background. It was also interesting to note here that all participating students of Al-Ola College chose the English version of the survey. This might be due to the fact that the college's curriculum is exclusively taught in English, which is not entirely the case in other academic institutions in Saudi Arabia (Al-Kahtani et al., 2006).
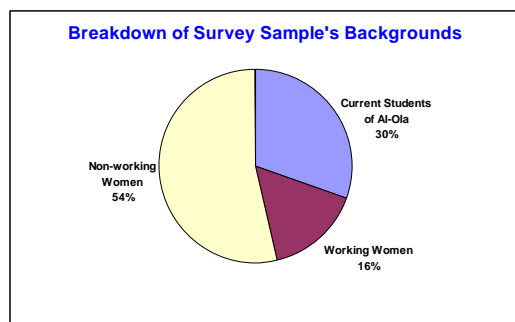

Figure 1: Backgrounds of Survey Sample

A detailed response analysis for the survey questions is provided in Appendix B. Generally speaking however, and despite the reported unpleasing non-accredited status of DL qualifications in Saudi Arabia, there seems to be a positive attitude towards DL on the part of the potential DL students surveyed. The vast majority of non-students at Al-Ola College have indicated a desire to continue their higher education, but among the biggest obstacles were time and travel constraints. Such findings, which render the DL option as attractive for the case of Saudi Arabia, are consistent with the findings of some of the previous studies (e.g. Al Rawaf and Simmons, 1991; Al Sudairy, 2007) that were reviewed in Section 2.1. It is interesting however to note that whilst 77% of the surveyed participants agreed that DL would mean less interaction with fellow students when compared with conventional education, approximately 60% of them were not actually very concerned about the actual presence of a tutor in a DL programme. The latter perception contradicts the mainstream DL literature (e.g. Cookson, 1989; Galusha, 1999; Keegan, 1990; Verduin and Clark, 1991) that suggests that a lack of immediate support and social interactions are the most common problems that face any DL setting. A probable reason is that such social isolation and alienation has recently been reduced with today's advanced use of communication technologies such as chat rooms, bulletin boards and conferencing.

2. Interview Results

For the semi-structured interviews schedule, please refer to

respondents had the choice of completing either the English or the Arabic version of the survey. For a copy of the survey in both languages, please refer to Appendix A. Out of the distributed 380 hesitantly considered and that DL does not conflict in any way with the vision or values of the college. The latter finding was validated by a cross-checking of college's planning documents, which were made available for scrutiny by the College Dean. Nonetheless, as bluntly argued by Interviewee C, "DL certificates are not well respected in the country. As soon as the male-run Ministry of Higher Education starts acknowledging such qualifications, we will offer them". Interviewee B, who also holds a senior position in that Ministry, mentioned that it is not a secret anymore that most respectable Saudi universities are in the process of incorporating DL into their curriculum. It was also interesting to note that the only female respondent, Interviewee E, was the only one who fully supported an immediate consideration of DL in Al-Ola College. She further suggested that one way of changing such a negative perception with regard to DL is to pay careful attention to the quality of the DL curriculum. Providing such courses are offered in collaboration with highly reputable international universities, this would also enhance the prospect of DL courses in Al-Ola College.

Regardless of the non-accredited status of DL qualifications, half of the interviewees thought that DL could advance knowledge and learning for housewives who missed – or are currently missing – the chance of full-time education. "Providing education for those housewives will provide tangible and intangible benefits for our college and for society as a whole", Interviewee A added. However, whilst housewives might not be very concerned with the qualifications themselves when compared with working women, interviewee F vigorously argued that since knowledge of the English language among potential DL students tends to be very limited, the Arabisation of computers and DL study materials should be encouraged. Al Sudairy (2007) mentioned that one of the problems that faces DL in Saudi Arabia is the language barrier. Since most tertiary education is undertaken in Arabic, most Saudi students lack fluency in English. On the other hand, almost all of interviewees strongly agreed that the college should not have any problem in raising the capital funding needed to set up and run DL. Whilst some training might be needed to train staff in DL course development and technology, they seemed confident that most of the necessary technological structure and technical knowledge are already available in-house. Therefore, the vast majority of the members of the Board of Directors interviewed indicated their readiness to support the idea if they found a sufficient market for it. What came as a surprise to all of them were the results of the survey. In particular, they were amazed by how well perceived was DL by those who could be regarded as potential DL students. As promised by Interviewee A, "since you found such an immense interest, DL will surely be on the top of our agenda at the next meeting". In essence, it was pleasing to witness that one of the outcomes of this research endeavour was actually initiating a constructive discussion, and hopefully action, with regard to implementing a DL curriculum.

Appendix C. When asked about the reasons behind not incorporating DL into the curriculum of Al-Ola College, most of the interviewees indicated that this idea has already been

Having investigated the potential of DL in Al-Ola College, it is now appropriate to examine the viability of WBI, i.e. internet-based learning as the technology of choice to deliver DL programmes in Al-Ola College.

With aid of both primary and secondary sources of information, the outcomes of this assessment is summarised below through using ACTION methodology, which was introduced on page 3.

Table 1: Assessing the Suitability of WBI in terms of ACTION Framework

Access	Based on the response to question 7 of the survey, the overwhelming majority of respondents have confirmed their access to the internet via a broadband connection.
Cost	Simplified cost analysis was conducted to determine the typical cost structure of WBI as well as the unit cost per learner. Whilst the members of the Board of Directors interviewed have asserted that financial issues are not of great importance should Al-Ola College decide to set up DL courses, these calculations confirmed the economic attractiveness of WBI for both the college and for DL students (See Appendix D for details).
Teaching and Learning	Many scholars (e.g. Baldwin, 2001; Collis, 1995; Webster and Hackley, 1997) have suggested that the success of any DL initiative largely depends on the tutors' preparation and training. Confidence has however become apparent - from the interviews – with regard to the technical ability and knowledge of staff working at Al-Ola College. There also seems to be a positive attitude towards the use of computer and internet-based application as the interviewees believed that the use of information technologies, in general, has already resulted in improvement in the curriculum development and teaching methods in the college. A couple of the interviewees have also shown results of internal studies that confirm this last suggestion.
Novelty	As indicated earlier, the use of

2. The Suitability of Internet Technology

Interactivity and user-friendless	Moore and Kearsley (1996) pointed out three types of interaction: learner-content, learner-tutor and learner-learner. Clearly, WBI could provide for all of them through the use of online conferencing, chat rooms, emails and bulletin boards. Whilst the language barrier may form an obstacle for students who lack fluency in English, Interviewee F spoke about some of the successful attempts to provide online DL programmes that are run in Arabic in Egypt. Although one of the interviewees was not quite satisfied with the current skills of students using the internet, it is perhaps worth mentioning here that most of the potential DL students surveyed have indicated their competence in using internet applications and there appears to be a perception among the whole population that they should improve their computer skills and internet literacy.
Organisational issues	When the interviewees were asked whether or not they can think of any organisational changes that would need to be made before a DL initiative could be applied in Al-Ola College, most of them were certain that it could be done with minimal effort given the available financial and technical resources of the college. Moreover, they asserted - and this is supported by documentary evidence - that providing DL does not conflict in any way with the vision or values of Al-Ola College.
Novelty	As i dicated earlier, the use of WBI is not something new to Saudi Arabia. The use of the internet, in general, is very

		WBI is not something new to Saudi Arabia. The use of the particular - is growing by the day (Al-Kahtani et al., 2006). In fact, as argued by Interviewee B "since our college is electronically connected with other Saudi institutions and with the outside world, there is a prospect of collaboration in the DL field".
	Speed	Speed is indeed one of the major benefits of the internet. It is easy to mount and up-date WBI study materials and to set up instant communication between tutors and students.

Evidently, from the above assessment, WBI seems to be an attractive choice for delivering DL programmes on the part of Al-Ola College. This finding agrees with that of another study by Sahab (2003), which examined the potential of WBI in another Saudi university.

VI. Conclusion

In conclusion, in this country, religious and cultural traditions also dictate segregation of the sexes in almost all situations, including educational settings. DL might therefore help normal Saudi women to pursue further education in the convenience of their own homes, without imposing a burden on their male relatives who would otherwise have to drive them to female colleges. For these reasons, a review of the literature has revealed that DL has recently generated a growing interest in the country. This research was therefore launched in order to examine the potential of incorporating DL into the curriculum of Al-Ola College. In order to boost the validity of this research, triangulation of evidence was adopted; i.e. survey of potential DL students and interviews with senior management; that were then cross-checked with available documents.

The results of the surveys have shown a tremendous interest in DL. Time and travel constraints were at the top of the list of barriers that have prevented the respondents from pursuing further education. It should be noted however that not only were the surveyed participants not representative of the Saudi population, but they also represent the views of Saudi females only. A sample of male students might therefore have presented different attitudes. In addition, such views might not be utterly appreciated by policy makers in Saudi Arabia, who are largely males. Nonetheless, efforts noted recently - such as the establishment of the National Centre of E-learning and Distance Learning - indicate a determination to expand the role of DL in the country for reasons mainly related to catering for the expansion of student enrolment (*cf*. Al Saif, 2005). It has also emerged from the interviews that there were tentative plans to develop a DL curriculum at Al-Ola College in the future. There seems, however, concerns regarding the way DL

	appealing to most Saudis, and its popularity - among student and academics in

prospect of DL. Another concern is the language barrier as the English language is not mastered by all potential DL candidates. These concerns could however be overcome, as suggested by the interviewees, by raising the quality of the DL curriculum offered and by boosting efforts to Arabise computers and DL study materials. With regards to the most suitable DL medium for the case of Al-Ola College, and as per the ACTION framework, WBI appears to be a very attractive option to consider. As a review of the literature (e.g. Baldwin, 2001; Collis, 1995; Keegan, 1990; Northrup, 1997) indicates, positive tutors' characteristics and support (particularly financial support) from senior management are among the most significant factors for the success of any DL initiative. This research has verified the presence of such factors in Al-Ola College. With the positive perception with regard to DL that this research has also demonstrated, it is hoped that the subject of DL will be seriously considered by the Board of Directors and subsequently incorporated into the curriculum of the college.

Finally, recommendations for future research in Al-Ola College include an investigation into which majors are feasible and/or worthwhile to offer on a DL basis. Moreover, one could argue that the aforementioned research limitations regarding the lack of generalisability could actually provide future research opportunities. For instance, it could be of interest to take the findings of this research and try to test them quantitatively on a representative set of academic institutions. In addition, since DL has already been offered in other Saudi universities, an empirical examination of such experiences and learnt lessons could prove beneficial.

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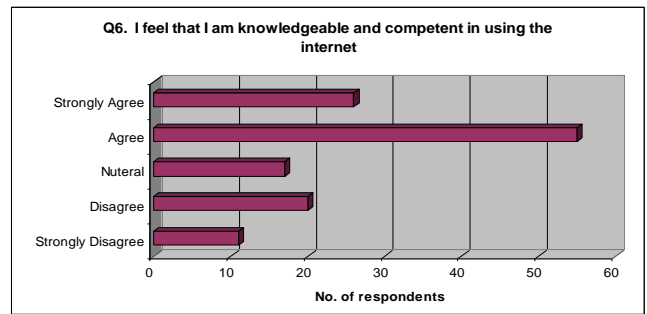
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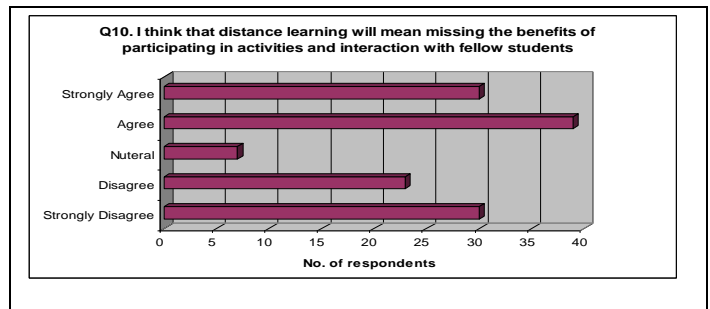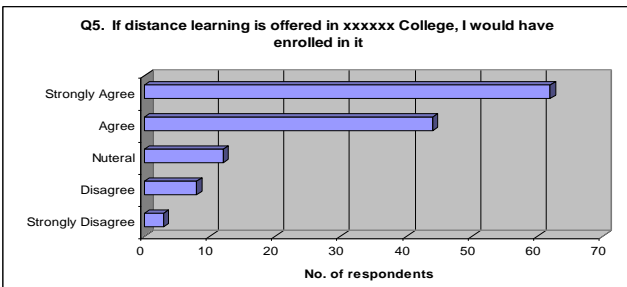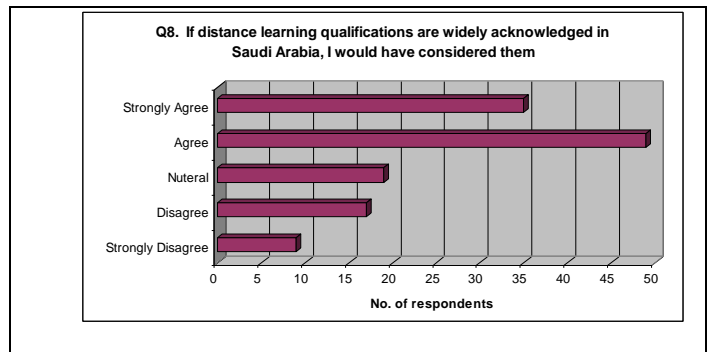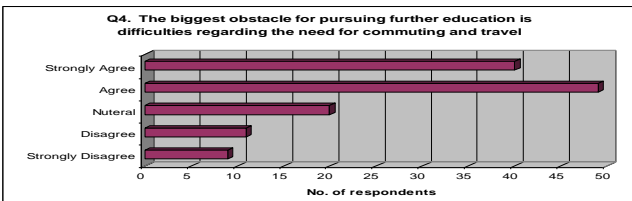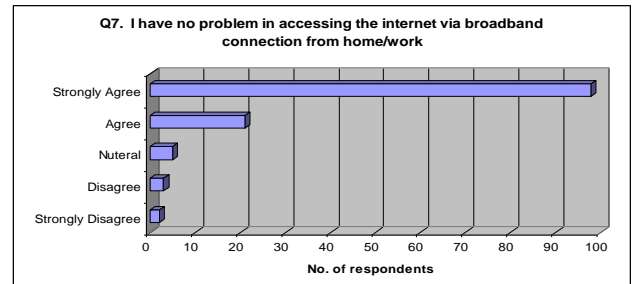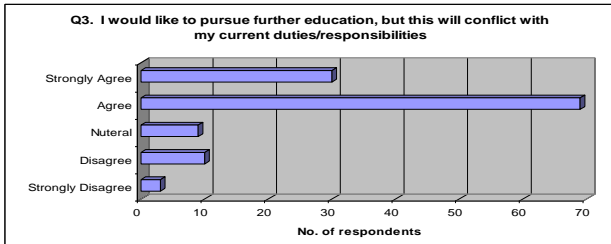
Appendix A: Students Survey
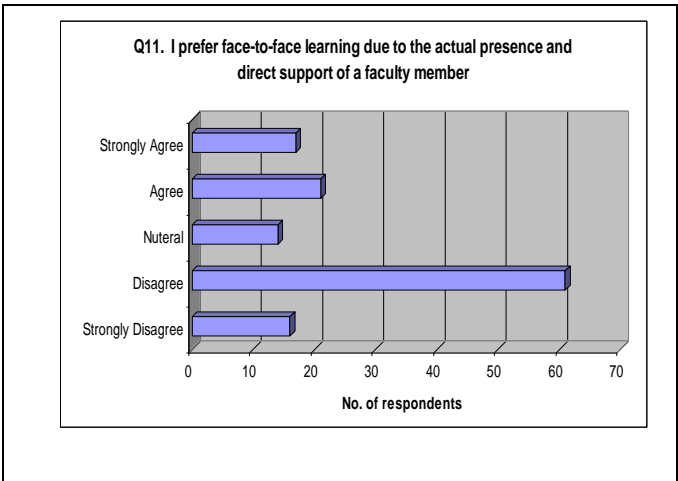
Appendix B: Survey Response Analysis

Responses for the first two questions of the survey have provided information on the backgrounds of the survey sample (Figure 1). Below is a graphical representation of key response findings for the remaining survey questions.

Q3. I would like to pursue further education, but this will conflict with my current duties/responsibilities

Q4. The biggest obstacle for pursuing further education is difficulties regarding the need for commuting and travel

Q5. If distance learning is offered in xxxxxx College, I would have enrolled in it

technology-mediated distance learning. Academy of Management Journal, Vol. 40, no. 6, pp. 1282-1309.

Q6. I feel that I am knowledgeable and competent in using the internet

White, K.W. and Weight, B.H. (2000). *The online teaching*

Q7. I have no problem in accessing the internet via broadband connection from home/work

Q8. If distance learning qualifications are widely acknowledged in Saudi Arabia, I would have considered them

Q10. I think that distance learning will mean missing the benefits of participating in activities and interaction with fellow students
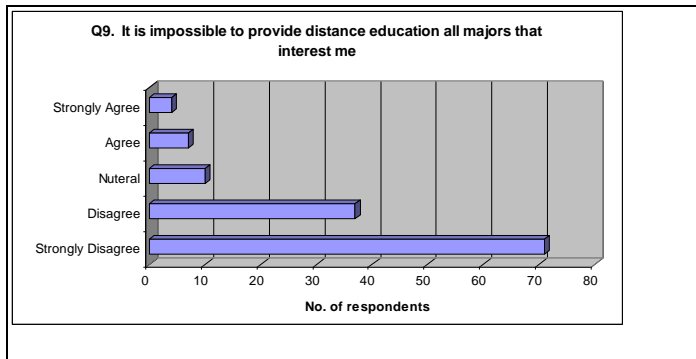
Appendix C: Interview Schedule

The following are broad guidelines rather than precise questions to be asked in the interviews. Whilst all the six interviews were conducted along the following lines of enquiry, each interview differed slightly, depending on how each interviewee responded. Moreover, rather than treating the interview as a question and answer session, interviewees were encouraged to elaborate on their answers.

- Has the use of information technology (IT), including the internet, resulted in an improvement in curriculum development and in teaching methods in Al-Ola College?
- Why has distance learning not yet been incorporated into the curriculum of Al-Ola College?
- Are there any current plans to offer DL courses in Al-Ola College?
- In your opinion, what kind of opportunities and threats are associated with launching a DL initiative in Al-Ola College?
- If the idea of DL proves beneficial, would the college be capable of raising the capital funds needed to develop the curriculum and the all necessary infrastructure?
- Do you think that the current college staff is sufficiently trained to develop and run DL courses?
- Does providing DL conflict with the vision or values of Al-Ola College? If so, what sort of organisational changes would need to be made before a DL initiative could be successfully applied?
- The results of the students' survey were then shown to the interviewees, and they were invited to comment on them.

Appendix D: The Economic Viability of WBI in Al-Ola College

Drawing from the ACTION model of Bates (1995), Bartolic-

costs, and fixed and variable costs. Capital costs are those associated with purchasing necessary equipment and materials, whilst recurrent costs are those that recur on an ongoing basis, e.g. the cost of technical support. Production costs are costs associated with the development of a WBI programme, whilst delivery costs are associated with the delivery and teaching of the course materials. Finally, fixed costs are costs that do not change with output (e.g. number of students), while variable costs are those that do. For the purpose of this research, the following assumptions were established after consulting the literature (Rumble, 1997, 2004; Sahab, 2003) and intensive discussion with Interviewee E:

- The number of students in each course is twenty-five; each has to buy her own computer that is equipped with a modem.

- The fixed cost structure will be distributed over a period of seven years.

- The cost calculations will be conducted for ten different 4-week long WBI training courses, each offered five times a year.

- Tutors teach three courses, each delivered five times per year.

Bearing in mind the above assumptions, the following table calculates the total costs for one course delivered five times per year. Whilst such costs reflect average prices in Saudi Arabia, they were all converted to pounds sterling for convenience.

Table D-1: Total cost for one course delivered five times per year

Costs for Al-Ola College	
Salary for tutor teaching 3 courses	£ 20,000
Training	£ 80
Servers (over 7 years)	£49,000
Technical support	£ 800
Costs for Student	
Hardware (over 7 years)	£ 500
Material per WBI course	£ 30
Internet access (4 weeks x 8	£ 10

Zlomislic and Bates (1999) explained that cost factors should include capital and recurrent cost, production and delivery

£ 1,466

The Single Student's Share

1,466 / 25 = £ 59

Assuming an average lifetime of student's hardware of 4 years, the cost of the hardware to the student is 500/4 = £125 per year. Since the internet access per course is £10, one WBI course would cost 59+125+10+30 = £224. Indeed, registering for two WBI courses in the same year would spread the hardware cost over two courses, thus lowering the cost of each to £162, which is normally reasonable and affordable for an average Saudi citizen. Such figures which reflect the direct cost per class study hour, are based on simplified calculations that do not take into account other facts such as inflation, indirect costs such as special supplies, etc. Therefore, their role - at best - should be limited to providing a first order assessment.

hours)

Subsequently, the total cost for a single course would be as follows:

Tutor (1 course)   20,000 / (5 x 3) = £ 1,333

Training   80 / 5 = £ 16

Server   (49,000 / 7) / (10 x 6) = £ 117

Total