Letters From the Field: e-Learning Students Change of Learning Behaviour in Sri Lanka and Bangladesh
Annika Andersson
Swedish Business School, Örebro, Sweden
annika.andersson@oru.se

Abstract. This paper reports the findings from two case studies on e-learning in Bangladesh and Sri Lanka. In these countries much hope is set on e-learning as a means to disseminate education to a larger population, but statistics show that drop out rates from e-learning courses are much higher than from traditional, classroom based, courses. In this paper it is argued that one reason for this is that the introduction of e-learning and a more student-centred learning model involves a drastic shift for students who are brought up in very teacher-centred didactic educational cultures. In order to investigate how this change in learning is perceived by its main stakeholders (i.e. the students) visits to learning centres in Sri Lanka and Bangladesh were made during 2007 and 2008. To capture the students’ opinions an open approach was chosen where students were asked to write letters about which major challenges they experience in changing their learning behaviour and completing the courses. Altogether the study is based on 107 student letters that have been analyzed and coded based on major differences and challenges identified by the students. Findings show that most students find learning on their own to be the major difference. They find this challenging because they feel very distant and because they do not know how to learn on their own. They have difficulties in managing their time and a lack of flexibility combined with a sloppy administration makes it even worse. Students used to being spoon-fed and learning by memorizing obviously need much support in taking ownership of their own learning in order to be able to learn by themselves. By comparing and mapping these findings to solutions suggested by existing research this study therefore suggests that support functions should be provided for students on ‘how to be an online learner’ and on ‘how to learn by yourself’. The teacher interaction and presence should also, at least in the early stages of the course, be frequent and active in order to make the student confident in his or hers ability to learn on their own. Finally, course flexibility (in regards to delivery mode and pace) should be high and much effort should be put into creating a supportive and well-organized administration.

Keywords: e-learning, developing countries, educational structures, pedagogical differences, learning behaviour, support functions

1. Introduction
Education is said to be one of the most important factors for poverty alleviation and economic growth in developing countries (UNDP, 2005, UNESCO, 2005, WSIS, 2005). The interest in using Information and Communication Technologies (ICTs) for dissemination of education is growing and is believed to have huge potential for governments struggling to meet a growing demand for education while facing an escalating shortage of teachers (UNESCO, 2006). E-learning is, however, facing a lot of obstacles and challenges in developing countries (Heekx, 2002, Dhanarajan, 2001, Rajesh, 2003) and drop-out rates are usually much higher compared to traditional classroom-based teaching (Simpson, 2004, O’Connor et al., 2003, Eastmond, 2000). The challenge addressed in this paper is the problematic shift in learning culture that emerge with the introduction of e-learning where students are supposed to learn by themselves and take more responsibility for their actions. Students in many developing countries are used to a traditional classroom based educational model where students regard the teacher as an expert that teaches and not as a facilitator for his or her learning (Sehrt, 2003, Rajesh, 2003, Eastmond, 2000). The culture of class room teaching is strongly built into the psyche of teachers and students (Rajesh, 2003) and since the education culture is authoritarian (fostering values of obedience, honour and respect for authority) any attempts to introduce e-learning will be challenging (Burn and Thongprasert, 2005, Pagram and Pagram, 2006, Usun, 2004). Bangladesh and Sri Lanka, the two countries where this research takes place, are no exceptions to this picture. It has been argued that the introduction of e-learning and a more student centred learning involves a drastic shift in these countries’ educational structures (Ismail, 1991, SU, 2004) and it is therefore relevant to investigate how this change is perceived by the students.

1.1 Research questions
This study is based on an analysis of letters from e-learning students in Bangladesh and Sri Lanka in order to find out which differences and challenges e-learning students perceive in relation to their learning behaviour:
What do students in e-learning programs perceive as the major difference in learning behaviour if compared to traditional classroom teaching?
Which are the major challenges they experience in relation to this difference?

In order to guide practice possible solutions for these difficulties will also be investigated and the study thus has a third research question:

Which solutions does existing research suggest to meet these challenges?

2. e-Learning Case Studies Bangladesh and Sri Lanka

The two cases chosen for this study have many similarities: they are both situated in South Asia in countries categorized as developing countries (WorldBank, 2007). They both concern distance educations with large student populations and are both set in teacher-centred didactic educational cultures. Both education programs have historically suffered from high drop-out rates and special projects have been initiated in order to increase pass rates. The main difference between the cases is the medium used for the education delivery: in the Bangladesh case study TV broadcasts, radio and mobile phones are used to deliver the course and in the Sri Lankan case computers and a web-based learning management system (LMS) are used.

2.1 eBIT Program, Sri Lanka

The eBIT course is the external part of a program called Bachelor of Information Technology (BIT) provided by the University of Colombo School of Computing (UCSC). The external degree is an option for all those students that have the right qualifications for admittance to university but cannot attend (due to work, geographical distance or simply because there are not enough admissions at the university) and more than 17,000 students have registered since the start in year 2000. BIT is a three-year, full-time, programme and is accessed via a Moodle based LMS. Three learning centres were visited in Sri Lanka during 2007 (a learning centre is a place where distance education students can go for lectures and get help from teachers and peers). These learning centres teach the BIT curriculum and provide students with computers and Internet access. The learning centres visited were all located in the suburbs to Colombo where the students were found having lectures in big lecture halls.

Figure 1: Students at a learning centre in Sri Lanka

The Sri Lankan students at these learning centres are young (the median is 22 years ranging from 19 to 25). A majority of the students are male and most of them are working or taking other courses concurrently to the eBIT studies.

2.2 Bangladesh Open University

Bangladesh Open University (BOU) enrols over 250,000 students all over Bangladesh. BOU is responsible for providing education to rural areas in Bangladesh as well as to students that for other reasons cannot attend regular classes (the students have to work to make a living during the days or
they are housewives and have to tend to their family and so forth). BOU is the only public university in Bangladesh that delivers education in open and distance mode. The course is delivered to students via TV, radio and mobile phones with text books as self-study material. Students have the option to go to a learning centre every other Friday (the holiday in Bangladesh) to get assistance from teachers and other students. These learning centres provide face-to-face lectures and some of them are equipped with TVs and mobile phones. There are over 1000 learning centres in Bangladesh (all over the country) and the learning centre used in this study is located in central Dhaka and was visited in January 2008.

Figure 2: Students at a learning centre in Bangladesh

The Bangladesh students at this learning centre are mainly men and young (the median is 25 years ranging from 20 to 35), and most of them are working concurrently to their studies.

3. Method

This paper is based on two case studies on distance educations in Bangladesh and Sri Lanka. The study is mainly interpretative by being based on a qualitative analysis of letters, but also quantitative in the counting of challenge frequency (by ranking the most frequently mentioned challenges in the letters). The study is based on 107 student letters that have been analyzed and coded based on major differences and challenges identified by the students. These findings are also mapped to possible solutions as suggested by existing research from a previous literature study on e-learning (Andersson, 2007).

3.1 Informants

The students in the Sri Lankan case refer to external degree students admitted to the eBIT program in 2007 that have chosen to follow the course via a learning centre. In the Bangladesh case students refer to BOU distance students that have also chosen to visit learning centres to get face-to-face teaching. Students from learning centres were chosen because they are believed to experience more difficulties in their studies (therefore the need get assistance at the learning centres) than the students taking the course entirely by self studies.

3.2 Data collection

Three learning centres were visited in Sri Lanka during 2007 and one learning centre was visited in Bangladesh during 2008. In order to understand the major challenges students perceive in taking distant courses they were asked about what they perceive as the major difference in learning behaviour compared to traditional classroom teaching and which major challenge they experience in relation to this difference. Students were asked to write answers to these questions on blank papers. These long notes, or letters as they are referred to in this paper, were collected by the researcher at the same day of writing. In the Sri Lankan case the letters were written in English, but in the Bangladesh case the letters were written in Bangla and later translated into English.
3.2.1 Non responses
Altogether 140 students took part in this study: 84 in Sri Lanka and 56 in Bangladesh. External non responses occurred in Bangladesh where ten students were illiterates and could therefore not participate. Internal non responses only occurred in the Sri Lankan case where six letters were removed from the study due to intangible writing or a total misunderstanding of the questions asked. Another 17 informants were later excluded from the study because their answers on the major difference only concerned costs or the technologies used. Even though these answers are interesting by themselves they are not related to the question on major difference in how students learn. All in all this makes the study based on 107 students: 43 students in Bangladesh and 64 students in Sri Lanka.

3.3 Data analysis
Letters have been coded according to the research questions (i.e. ‘which major difference do the students address in comparison to traditional classroom teaching?’ and ‘which challenges do they address in conjunction with this difference?’). The coding strategy has been to search for quotations corresponding to these questions. These quotations have been marked and thereafter all codes (together with the quotation attached to it) have been reviewed for connections and similarities. This open coding strategy generated three themes on major differences and nine challenges in relation to these differences (the full categorization scheme is available in the appendix). The analysis was performed by using a computer-based tool for qualitative analysis (Atlas.ti) which enabled a quick counting of the different codes’ occurrence frequency. This frequency count underlies the ranking and selection of the most commonly addressed differences and challenges.

3.4 Finding solutions to challenges
In order to inform practice the emerged challenges have also been mapped to the findings from an extensive literature study in order to find possible solutions. The literature study (Andersson, 2007) identified 37 factors as being potential enablers or inhibitors for e-learning and by comparing these factors to the findings in this study relevant solutions could be found.

4. Findings
By counting on the frequency of how often a difference is mentioned in the letters it was found that ‘learning on your own’ is perceived as the major difference in both cases.

![Figure 3: Distribution of answers regarding the major difference between learning via e-learning and learning via the traditional classroom.](image)

Challenges due to this difference refer to problems in taking responsibility for the own learning progress and not knowing how to learn by yourself. Time management, the lack of flexibility in course delivery and a poorly managed administration are also mentioned.

Table 1: Major difference and challenges
Major difference

- Learning on your own

Major challenges due to this difference

- Taking responsibility for the own learning
- Knowing how to learn
- Knowing how to manage time
- Lack of flexibility
- Poorly organized administration

Whereas these are the top five challenges mentioned by students in both countries there are some variations. In Bangladesh the poorly managed administration was seen as bigger challenge than time management, whereas the reversed is the case in Sri Lanka. Having said this, differences are much smaller than the similarities and findings from both cases will most often be jointly discussed.

Figure 4: Distribution of answers regarding challenges in relation to learning on your own. The difference between the number of informants and mentioned challenges is due to some students mentioning more than one challenge.

4.1 Major difference: Learning on your own

The major difference compared to traditional classroom teaching is to learn on your own. Distant learners feel very distant and students will typically start out writing about feelings of loneliness and the physical distance they experience:

"Distance education means, learn things from far away sitting at home"¹

Even though this could be considered an obvious claim to make, distance education is per definition distant, it is the first difference that comes to mind for most students which well demonstrates its importance. Much research shows that students in distance mode misses social engagement and a feeling of being involved (Galusha, 1998, Bruckman, 2002, Schrum and Hong, 2002). Students being left to self-studies, feeling alienated and isolated, is a commonly stated reason for not passing a course or dropping out:

"The educators reported that some students have trouble finishing a course because they are concerned about learning alone. They suggested that students work in a group so they feel they are learning in a collaborative and social environment. " (Schrum and Hong, 2002)

4.2 Major challenges due to this difference

¹ All quotes are verbatim and no corrections to grammar or spelling have been made by the author
4.2.1 Taking responsibility for the own learning
The students address five major challenges in relation to learning on their own and the second most commonly addressed theme (and the most common theme in Bangladesh) is that they now have to take responsibility for their own learning. This is said to be difficult because they do not trust their own competence and because they believe that they learn less when they have to learn by themselves:

“We have to learn many things by ourselves. Thus, we can’t know many things.”

This feeling of not trusting your own learning ability is probably due to the high teacher dependency which is made explicit in all students’ letters. The students want the teacher's direct and constant feedback; and not having a teacher present is regarded as a problem:

“It will be very difficult to solve our problem with only one class per week. If any teacher misses the class on any week then it will be a problem for us “

In relation to this the students have also realised that the motivation to study now must come from them:

“In my view major different is student must have a need of study, they must be greedy for learn. If so e-learning is very simple. In traditional classrooms its teachers neediness to teach. [We need to] encourage the self study and raise the confidence to solve the problems without depending on others.”

According to existing research students need to monitor their own progress in order to take responsibility of their own learning. They will need assistance in monitoring their progress by providing means for self assessments and, especially at the early stages of a course, they will need to have frequent discussions with teachers and peers to become more confident (Salmon, 2002, O'Connor et al., 2003, Pagram and Pagram, 2006, Dabbagh and Kitsantas, 2004).

4.2.2 Knowing how to learn
A question that arises when students have come to terms with the fact that they have to study more by themselves is how to go about it. This is the most frequently mentioned challenge by the students and is often addressed in terms such as subjects being hard, or even impossible, to learn by themselves. They do not always know where to find relevant resources or what to learn. Neither do they know how to navigate nor do they know how to sort out what is important from all the expected readings and activities:

“The main difficult is we can’t find several resources. Finding relevant references to studies and measure the depth of a subject is difficult”

Self studying students need to develop skills and get support in learning strategies and information literacy. Findings from the literature study suggest that this can be done through preparatory courses (on how to select appropriate learning strategy) and study guides which both have proven to be useful tools (O'Donnell et al., 2006, Beasley and Smyth, 2004, Lorenzi et al., 2004).

4.2.3 Knowing how to manage time
The third challenge addressed by students is that they find it hard to manage their time. A higher percentage of the Sri Lankan students mention this problem which could be due to the fact that they are taking a much longer course. Some time management problems arise because the students do not know how much time to set aside for their studies; what is required of them; and they perceive the content not to be evenly distributed throughout the course. This problem is of particular importance to these students that by default have little time to set aside for their studies because they are working or taking concurrent studies:

“Time management is the hardest. I work full time on week days and attend classes on weekends. Most students drop out because there’s little time to study.”

Existing research suggests that students can be assisted in time management by course providers being explicit about the number of hours that is required for each task (in order to assist students in structured progression and time planning). Academic planners and schedulers including time
requirement information are very useful in this regard (Lorenzi et al., 2004, Alias and Rahman, 2005, Dabbagh and Kitsantas, 2004)

4.2.4 Lack of flexibility
A fourth theme is found in the students changed need for flexibility. In traditional classroom teaching students accepted a more fixed and conformed delivery of courses, but now they find the lack of flexibility an inhibitor for their studies. Most students want the exams to be given in a more flexible manner (concerning frequency and the provision of repeat exams) and they think that broadcasts and support services should be available through different channels at more flexible hours:

“I am in work when classes held on TV or radio. So, it would be helpful if classes on TV or radio are broadcast after 10pm and send information through mobile phone”.

Much research show that distance education students perform better if the course is flexible in the matter of timing and assignment choices, if they are allowed to work at their own pace and if they are provided with several modes of education delivery - CD, web, print outs, SMS and so forth (Patton, 2000, Delialioğlu and Yildırım, 2007, Sankey, 2006). Considering how the distance students in these two cases are working or taking other courses concurrently the importance of flexible deadlines and repeat exams is evident.

4.2.5 Poorly organized administration
In distance mode students need a well organized administration and management since there is no one to directly double check issues with and last minute changes do not always get through. Students complain about the poor organization and administration of the course which means that time and dates for classes and exams are changed without their knowledge:

“There is a problem with schedule and flow of classes and sometime the exam is late. Thus, it diverts the students’ concentration from study.”

This issue has been more frequently addressed in the Bangladesh case where the students had recently been through a period of constant schedule changes and administrative blunders. The students demand for a fixed schedule with no changes to it may seem conflicting with the demand for greater flexibility. But this requirement is only addressed as a remedy for the lack of flexible pace and deadlines (i.e. if they cannot decide the pace and time for exams themselves they see it as a minimum requirement that management does not change the schedules all the time). Students are also generally confused about many administrative issues such as how to register for courses, which learning centres to go to, which activities are graded and so forth. They find poorly managed administration a major challenge to make it on their own. They want detailed schedules on what is mandatory and submission dates for assignments.

Students being confused and rather lonely will need clear guidance on all practical issues in order to feel comfortable in distance mode. Students need a fixed schedule and exam dates (if these cannot be made flexible) and if changes are made they need to be informed with long notice. Findings from the literature study also propose that the students need proactive contact from the institution’s administration for support in how to register and how to choose which courses to read (Rekkedal and Qvist-Eriksen, 2004, Wang, 2006, Gaskell and Mills, 2004).

5. Conclusion
The problems with education for most developing countries are that admissions to universities are limited and that the people most in need of education are the ones most needed at home or at work. A solution to this problem would be to allow people to ‘learn where they are’ and thus much hope is set on distance education and e-learning. At the same time there are many e-learning failures in regard to very low completion rates. Understanding and being aware of which factors need dealing with is therefore of particular importance and this research has pointed to an often neglected factor in the field of e-learning in developing countries: the pedagogical change. Critical studies have shown the field of Information and Communication for Development (ICT4D) to have a technologically deterministic approach whereas this research has shown that the challenge for the students is not about technology but rather about a change in the very structures of educational thinking. This study showed that students considered ‘learning by yourself’ to be the major difference between e-learning and classical classroom based educations. It also showed that what they find most challenging in
learning by themselves is that they feel very lonely and distant, that they do not know how to learn by themselves and that they find it troublesome to manage time. The lack of flexibility in course delivery together with a poorly managed administration makes it even worse.

The students in the two cases underlying this paper are unanimous in addressing the pedagogical changes as their major challenge in studying in distance mode. These students have grown up in an educational setting where the norm is that the teacher is the expert that teaches and that the students should ‘listen and learn’ and now they are faced with a new e-learning agenda where students are supposed to be highly autonomous in their learning. To manage this transition much support is needed for both teachers and students in order to move away from the traditional way of teaching and adapt to a more learner-centred pedagogical model.

To summarize the students’ needs it was found that more support is needed for students to get accustomed to this new way of learning. This research therefore suggests that support functions should be provided for students on ‘how to be an online learner’ and on ‘how to learn by yourself’. The teacher interaction and presence should also, at least in the early stages of the course, be frequent and active in order to make the student confident in his or hers ability to learn by themselves. Self assessments are also important tools for this. Finally, course flexibility (in regards to delivery mode and pace) should be high and much effort should be put into creating a supportive and well organized administration.

### Table 2: Summary of challenges and solutions

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<tr>
<th>Major challenges</th>
<th>Solutions as derived from previous research</th>
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| Take responsibility for their own learning | • Self assessments and/or  
|                                        | • Frequent follow-ups and feedback from teachers and peers in order to get the learning progress assessed |
| Knowing how to learn                   | • Preparatory courses on appropriate learning strategies and information literacy  
|                                        | • Study guides                                                                         |
| Knowing how to manage time             | • Academic planners and schedulers where hours required for each task is explicitly stated |
| Poorly organized administration         | • Non-changing schedules and exam dates  
|                                        | • Timely information about changes  
|                                        | • Proactive contact from the institution’s administration for support in how to register and which courses to read |
| Lack of flexibility                    | • Repeat exams  
|                                        | • Flexible course pace and assignment deadlines  
|                                        | • Different media for education delivery                                               |

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**References**


Galusha, J. M. (1998) Barriers to Learning in Distance Education. *Interpersonal Computing and Technology*. University of Southern Mississippi.


Rajesh, M. (2003) A Study of the problems associated with ICT adaptability in Developing Countries in the context of Distance Education. *The Turkish Online Journal of Distance Education*, 4, ---.


UNDP (2005) Information and Communication Technology (ICT) for Development.


Usun, S. (2004) Factors Affecting the Application of Information and Communication Technologies (ICT) in Distance Education. *The Turkish Online Journal of Distance Education*, 5.


Appendix

Figure 5: Emerged themes on major differences and challenges