Collaborative Distance Learning System: “Interactive English pedagogy based on Internet and e-Media platform”

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Declaration

The whole dissertation, unless specifically indicated to the contrary in the text, is our original work, and has not been submitted in part, or in whole for the degree or diploma to any other university. In accordance with the requirements of the degree of Bachelor of Computer Science in the Division of Computer Science and Engineering, I am presenting this thesis paper entitled, “Collaborative Distance Learning System”: Interactive English pedagogy based on Internet and e-Media platform”. This project has been performed under the supervision of Dr. Yousuf Mahabubul Islam.

I hereby declare that the work submitted in this thesis is my own and based on the results found by myself. Materials of work found by other researchers has mentioned by reference in the end of this paper. This thesis, neither in whole nor in part, has been previously submitted for any degree.

........................................
........................................
Signature of Supervisor
(Dr. Yousuf Mahabubul Islam)
Acknowledgements

At first our heartiest gratitude goes to Almighty Allah, without his divine blessing it would not be possible for us to complete this project successfully. Then we are eternally grateful to our parents for their constant support throughout our academic work.

It’s been a pleasure and an honor to show our respect to Dr Sayeed Salam, Chairperson, Computer Science and Engineering (CSE), who has rendered continuous and encouraging guidance throughout the entire thesis period with his kind advice. His generosity and zeal for this thesis is exemplary.

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Finally we like to offer thanks to all of our friends and well–wishers for helping us by rigorous reviews of this work and inspiring suggestion.
Abstract

To enhance distance learning education through developing an effective English learning pedagogy based on internet and e-media. Analyzing and Designing the distant learning system of Bangladesh Open University (BOU), so that students learn better English, increase usability internet and computer technology through an effective manner. Thereby the objective our project is develop the English background of the students of BOU, making them only medium of education, that is the television program effective through increased interaction, redesign it with web based facilities, and thus develop a new complete distance education system.
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Chapter 1

1.0 Introduction

1.1 What is Distance Education and Distance Learning?

Distance education is a form of education that focuses upon intertwining pedagogy, technology and information system to deliver education to student who cannot be present physically in a classroom or in front of a tutor due to a number of circumstances. In distance education system, usually the teacher and the student communicate with each other through a number of medium.

(1.1.1) Types of medium used in distance education

- **Print media** - Here the medium used is regular mail. In this case the student and the teacher communicate and correspond with each other through mail.

- **Internet** - This medium can be used both synchronously and asynchronously. By synchronization we mean that as the course precedes the student and teacher can synchronize themselves to the course curriculum pace. In other scenario sit is also observed that the student asynchronously.

- **Television/radio** - Usually known as the telecourse, this mode usually deliver the course lectures to the student by building up a simulated classroom or may be through video conferencing with the student. Both
the modes are quite popular. Though radio is not as famous but it also has had solid effect in the distance education history.

- **CD/DVD-ROM** - The lecture notes or recorded video of a simulated classroom, special quizzes, certain learning software and a lot a course material are recorded on to the DVD or CD ROM and are distributed among the student through market. The students continue their study from these supplied course materials.

- **Mobile Learning** - This is new medium which recently developed in the distance education system. The student are able to use their mobile or their PDAs to access the course content through the wireless servers or interact with the virtual classroom through SMS

### 1.2 Scenario of Distance Learning in Bangladesh

Currently in Bangladesh there are 104 educational institutions which provide higher education to the student of Bangladesh. 29 of them are public universities, 56 private universities, 31 specialized colleges and 2 specialized universities and 1 international university.

#### 1.2.1 Bangladesh Open University (BOU)

Among the 29 public universities Bangladesh Open University (BOU) is the first and only university that provides distance education to the students of Bangladesh.

BOU is mandated to "promote through multimedia; instruction of every standard and knowledge - both general and scientific - by means of any form of communications technology, to raise the standard of education and to give the people educational opportunities by democratizing education and creating a
class of competent people by raising the standard of education of the people in the country. (Reasons why people choose distance education is shown in appendix-A).

As we have seen in the above, distance education has a number of modes of communication but it does not mean that one of the mediums can only be used. BOU uses a number of modes of communication starting from print media to the television broadcast etc. The use of internet has not developed in BOU very well yet but they are developing a website and it is currently under construction.

Our aim was to establish Distance learning through BOU the only distant learning centre at Bangladesh, thus the first thing was to find out the limitations they face and the processes that BOU follows.

1.2.2 Limitations at BOU- Dropouts

What are Dropouts? Technically dropouts are the group of students who enroll themselves in one of the BOU courses then discontinue or end up not attending. The level of Dropouts for the last three years is shown in the appendix A.

Now the growing concern for BOU is this high level of dropouts. We thus decided to find out what are the reasons why the student left the courses. Therefore we decided to attend a research with a group of student from BOU who were present in the RRC (Regional Resource Center). Most of the student there where student who has dropped out of the courses at least ones their were something like 120 student present on that location and also we had a session with a group of students who commenced a course with a international university through distance education but later decided to discontinue. The question in the questionnaire was “Why did they discontinue their studies”? (see survey questionnaire in appendix-A)

The several reasons that the students provided were related both to the course matter but mainly the distant education aspect. The maximum found reasons are stated below:-
i). They lost interest in studying alone.
ii). They did not have adequate contact with the teacher
iii). The lesson materials were not much interesting
iv). Their home assignments were not returned properly

As we did not have any options to solve the student related problems but we aimed in eliminating all the teaching related problems that we have found out in our research.

1.2.3 Use of television on distance education

BOU mainly provides distance education through Television. Their shows are broadcasted on the BTV (Bangladesh Television) at specified times and therefore we wanted to justify the use of television in distance education. In our research questionnaire, a large percentage of student preferred television over radio and internet for distance education. Radio doesn’t provide the visual advantages like TV and the internet facilities are not of such a high quality in our country. Our further analysis of the use of television allowed us to find the advantages of television in the distance education scenario. The reasons that we believe television are proper for distance education is:

1. **Social Equity in Education**: Television promotes the goal of social equity in education catering to the masses of rural background and those living in slums of urban areas. Television increases the effectiveness of instruction and cuts down drop-out rates.

2. **Higher Quality of Instruction**: Television programmes are well planned/organized and better presented than the usual class-room instruction.
3. **Reduce Dependency on Teacher**: The students learn from television with their own efforts. They need minimum help from the teacher in case television is pressed into service.

4. **Flexibility**: Rapid and continuing changes in curricula and instructional methods are made possible through educational television. Course can be constantly modified not only to update them but to incorporate the constantly changing needs of the society and the expansion of knowledge.

5. **Use of the best Available Teacher**: Educational television makes educational opportunities equal throughout the country. The student in rural and deprived areas of the country where educational resources are not available, get the same quality of education as their counterparts in the urban centers. The best teachers are equally available for every student. Thus, television bridges the gap between the poor and the rich, the privileged and the underprivileged, the rural and the urban.

6. **Cost Effectiveness**: If television is utilized on a large scale, it proves cost effective. It can provide education throughout the country at a minimum cost without lowering the quality of instruction. The initial expenditure, of course, will be high.

7. **Logistically Simple**: In operating an effective distance education system, educational television is logistically very simple. The problems of planning, implementing and operating distance learning can be overcome to some extent by teaching through television.

8. **Combination of Audio and Video Components**: Television has the advantages of the radio as well as the video. That is why it has a greater appeal that the radio and the print-media.
9. **Stimulation:** Through educational television, we can control the stimulation (the audio and the visual) to get desire response (learning).

10. **Mass Education:** Educational television can cater to the explosive increase in student numbers.

**Chapter 2**

2.0 Methodology

2.1. **Collaboration- Introducing interactivity through SMS and Internet**

Most of the education programs that are broadcasted on BOU are a program that just complies of a certain instructor who takes a class on a certain topic. Now in most cases there are no students present. The students who are present in front of the TV have no sense of contribution to the course. As I have already mentioned above, the students have dropped out of their courses because of reasons that they felt that i) **they were studying alone** & ii) **they did not have adequate contact with the teacher.**

One of our main goals of the thesis was to bring a sense of collaboration and contribution into the student. Although the students are far away from each other, in today’s world there are many modes through which the student can contact and have a sense of collaboration with their fellow student. We also intended to make the classroom session in the BOU more interactive with the participation of students in the classroom.

The communication module used in our thesis was Short Messaging Service (SMS) using the mobile phones. Currently in Bangladesh there are 27.7 million mobile subscribers and a large number of them comprises of student. Therefore using this vast availability of mobile users in the country we believed that we can
build up an interactive session with the student as they proceed in their studies. The advantage of using this is that the student who felt alone while they studied will fell more involved with the course. Thus we believe it would ultimately reduce the dropout rate also.

**2.2 English- The Lacked Subject**

When we decided to recede with our work we needed to find out which subject we should work upon. In BOU there are many faculties but the subject where the performance of students and the rate of dropouts are highest is English. Most faculties at BOU and teachers at Institute of Educational Research (IER) believe that if a proper pedagogy can be developed to make the student be more interested to learn English through distance education then the level of English in Bangladesh will hopefully be much more advanced and creative. We therefore decided that our sector of research should focus on building a proper pedagogy of English using the facilities provided by the BOU. Now our main aim was to keep the students interested and involved in to the course as much as possible. Even the students of BOU believe that English will be a more appropriate course to learn through television media then any other course as science is a subject that requires viewing and sometimes touching also subjects like social science and humanities may follow the same English learning techniques. Studies at Brac university also showed that the main problem of students in all the courses is due to the lacking in English language.
2.3. Analysis of tests at BOU

MindMap

Based on the surveys and after preparing the mind map we decided upon the things we need to do:-

- We need to develop a collaborative English learning pedagogy
- Design an interactive Television show
- To provide a complete support design and implement a collaborative Web-based software
2.4 Flow Chart of the design of the entire System

- Team
  - Working place - Regional Resource Centre
  - Analysis
  - Identification of Themes
  - Key Words
  - Our team members, administration
  - Excel software
  - Alphabet other words sentences stories

- Print
  - Revise prototype
  - Testing
  - Prototype
  - Visual Collection
  - Words Visual Activities

- Application in Field
  - Evaluate & Collect info
  - Modify Product & Process
  - Content Outline
  - Informal Discussions

- Scriptwriter
  - Shooting Script (detail shots)
  - Final Script Seq. & Format
  - Group Discussion
  - Copies for Discussion
  - Draft Script Sequence & Format

- Admin
  - Group Discussion
  - Final Script Seq. & Format

- Scriptwriting
  - Inhouse, All
  - Preview & Discussion
  - Revise if necessary
  - Post Production Script
  - Videotape Library
  - Researcher Evaluation
  - Scriptwriter, Subject Person/Producer Production I/C
2.5 Designing interactive English learning program

In designing our interactive television program we have focused on our proposed pedagogy that is the cognitive and the constructivist approach. In the thirty minute program other than the presenter/teacher two students who are the actors are present the program sequence is written below and the script is shown in appendix C.

1. Firstly the home sitting students asked to SMS their name and tutorial center number to attend the current program
2. The students are sent back a group name and password
3. The presenter asks one of the two students in the set to initiate a short real life story
4. While proceeding with the story the presenter collects key points through interrogation
5. From the extracted key points the presenter requests the audience to SMS an introductory sentence for writing a paragraph within a given time
6. After receiving the sentences the correct and incorrect sentences are separated
7. One of the incorrect sentence senders is called and through discussion the sentence is corrected
8. Four random correct sentences are chosen and given option
9. Students are asked to SMS the most appropriate introductory sentence
10. Paragraph is starred with the highest SMSed sentence
11. Two students in the set provide the following three sentences of the paragraph
12. The two set of sentences are given option
13. The audience is asked to SMS the most appropriate set of sentence that goes with the introductory line
14. The highest ranked set is chosen to follow the paragraph
15. Lastly the students are asked to complete the paragraph and upload in the website according to their respective groups.

16. For further assistance they are asked to visit the tutorial center.

Chapter 3

3.0 IMPLEMENTATION OF THE SOFTWARE:

3.1 Prototyping

After successful implementation of our excel prototype, we started to develop our web-based software. The excel software is used simultaneously with the television show, and the web support is provided all the time.

While the television program is running, we needed software to automate the SMS collection, student grouping, thus sequencing the entire content of the program. We used Microsoft Excel to build the software. The purpose and the forms along with the test data are shown below:

(3.1.1) Sheet 1 - User registration

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<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
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<td>1</td>
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</tr>
<tr>
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<td>e2</td>
<td>jami</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Group</td>
</tr>
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</table>
(3.1.2) Sheet 2-Assign group password

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<th>B</th>
<th>C</th>
<th>D</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Group 1</td>
<td>Group 2</td>
<td>Group 3</td>
</tr>
<tr>
<td>2</td>
<td>Sahin</td>
<td>Karim</td>
<td>Yani</td>
</tr>
<tr>
<td>3</td>
<td>Jyoti</td>
<td>Sumit</td>
<td>Daniel</td>
</tr>
<tr>
<td>4</td>
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<td>Jami</td>
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</tr>
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<td>5</td>
<td>Intehab</td>
<td></td>
<td></td>
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<tr>
<td>6</td>
<td>Misba</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Assign Pass</td>
<td>Return to main menu</td>
<td>Next</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Group no:</td>
<td>Group 1</td>
<td>Group 2</td>
</tr>
<tr>
<td>16</td>
<td>Group Pass:</td>
<td></td>
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</table>

(3.1.3) Sheet 3- Sentence collection and sorting

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<tr>
<td>2</td>
<td>8801913397411</td>
<td>It was a nice summer morning</td>
</tr>
<tr>
<td>3</td>
<td>8801913397411</td>
<td>We decided to go for a summer holiday</td>
</tr>
<tr>
<td>4</td>
<td>0001711265705</td>
<td>Every summer is a point to prove</td>
</tr>
<tr>
<td>5</td>
<td>0001711265705</td>
<td>Along came summer on pet</td>
</tr>
<tr>
<td>6</td>
<td>8801915709995</td>
<td>Come on, give it up for the greatest summer</td>
</tr>
<tr>
<td>7</td>
<td>880191013448</td>
<td>Summer was very fascinating came</td>
</tr>
<tr>
<td>8</td>
<td>880171430662</td>
<td>Nancy is enrolling in a summer program</td>
</tr>
<tr>
<td>9</td>
<td>8801717761217</td>
<td>Summer holidays are the best</td>
</tr>
<tr>
<td>10</td>
<td>880171430662</td>
<td>Summer is usually the best season of the year</td>
</tr>
<tr>
<td>11</td>
<td>8801712457256</td>
<td>The summer camp had students from all around the world</td>
</tr>
<tr>
<td>12</td>
<td>8801717761217</td>
<td>Highways is usually entry in summer</td>
</tr>
<tr>
<td>13</td>
<td>0001619013448</td>
<td>Summer came by the way</td>
</tr>
</tbody>
</table>

(3.1.4) Sheet 4- Extracting the correct sentence

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</tr>
<tr>
<td>2</td>
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<td>3</td>
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</tr>
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</tr>
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<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
</tbody>
</table>

| 11 |  |
| 12 |  |
| 13 |  |
| 14 |  |
| 15 | Rank |
| 16 |  |
| 17 |  |
| 18 |  |
| 19 |  |
| 20 | Return to sentence sheet |
(3.1.5) Sheet 5- Four correct options

<table>
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<td><strong>Options</strong></td>
</tr>
<tr>
<td>It was a nice summer morning</td>
<td>A</td>
</tr>
<tr>
<td>We decided to go for a summer holiday</td>
<td>B</td>
</tr>
<tr>
<td>Every summer is a good time to promote</td>
<td>C</td>
</tr>
<tr>
<td>Come on, give it up for the greatest summer</td>
<td>D</td>
</tr>
</tbody>
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(3.1.6) Sheet 6- Ranking the SMSs

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<tr>
<th>Mobile no.</th>
<th>Answers</th>
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<td>8801913397411</td>
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</tr>
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<td>b</td>
</tr>
<tr>
<td>880171289766</td>
<td>a</td>
</tr>
<tr>
<td>8801916706666</td>
<td>b</td>
</tr>
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<td>880171781217</td>
<td>d</td>
</tr>
<tr>
<td>880171400622</td>
<td>a</td>
</tr>
<tr>
<td>8801916706666</td>
<td>c</td>
</tr>
</tbody>
</table>

Frequency distribution:

- Options A: 3
- Options B: 2
- Options C: 2
Accordingly the next three lines of the paragraph are put in to two sets, from the main menu, the system is run again and eventually we will get almost half of the paragraph is completed.

### 3.2 Web Based Software

#### 3.2.1 Requirement Specification:

As per our research we have found that to impose a concrete learning and ensure that each an every student is a part of our proposed learning pedagogy, human intervention is essential. Taking the students and the faculties in mind we have designed our application in two parts:

**(a) For the faculty (admin)**

Reminding that our television program does not make our students finish writing the entire paragraph, but completing the paragraph is very important. Thus in the website the faculty will be able to view the paragraph sent by the students, correct and comment them, put up quizzes and mark them, upload lectures and program videos, put up news and events, make and delete groups and approve member request.

**(b) For the students (BOU only)**

Here the students will be able to collaborate entirely and eventually make a concrete learning. The students will be able to upload their homework
paragraphs, view their group mates assignments and comment them also view the comments their peer made upon their paragraph, view and download lectures and program videos, attend quizzes and see the result, for missing the program and not having a group they will also be able to ask for membership (a group name and password will be assigned in this case), and lastly view news and updates

3.2.2 Functional Requirements:
Functional requirements describe what the system should do that is the services provided for the users and for other systems.

Logon permission
(a) For the faculty the system requires a user name and a password given by the university to connect to the database. Positive validation opens a new page where faculty is able to continue the desired works e.g. upload assignment, view lecture. See figure-1.1.
(b) For the students to get connected to the database he/she needs to give a username and a password only prior the username and password they need to go to the students page. A positive validation will allow login.

Create quiz:
To make a quiz the faculty need to click the create quiz (see Figure-1.2) button in the faculty page which will open a new page for quiz creation (see Figure-1.3).

Save quiz:
To save the quiz, the faculty must fill in the question part, the options and the difficulty level together providing the correct option then click save button, the quiz will be save in the database. To make the quiz available to the students
the faculty should the on button and make the quiz available to the students. (see Figure-1.3).

**Edit quiz:**
To edit the already prepared quiz the faculty has to click the *edit quiz* button (see Figure-1.2) which will take him to the quiz page where he/she will first make the quiz unavailable by selecting *off* then make required changes and save it to update the database. (see Figure-1.4)

**Create Group:**
The faculty is able to create new groups and save it in the database by clicking the *create group* button and filling up the spaces like group name and password in the next page. (see Figure-1.5).

**Show Videos:**
To view uploaded videos the faculty has to click *show videos* button which will open a new page driving the uploaded videos from the database. To see any of them the faculty just has to click on any of them. (see Figure-1.2).

**Upload video:**
To upload videos the faculty has to click *upload videos* button, the system will provide a browsing option and he/she may upload a video to the database. (see Figure-1.7).

**Show Lectures:**
To view uploaded lectures the faculty has to click *show lecture* button which will open a new page driving the uploaded lectures from the database. To see any of them the faculty just has to click on any of them. (see Figure-1.2).
**Upload lectures:**
The upload a lecture the faculty has to click upload lecture button, the system will provide a browsing option and he/she may upload a PowerPoint lecture to the database. (see Figure-1.6).

**See Member Request:**
The faculties will be able to see if any of the students has asked for a member request by clicking the Member request button in the admin page. Clicking the button will open up a page showing the pending member requests (see figure-1.8). The faculty may also approve member request by clicking the Approve button and may reject it by clicking the Reject button.

**Show News and Events:**
Faculties will be able to put up news and events for the students by clinging the News and Events butt on which will show a new page having news headline author and news body and a submit button to save in the database.(see Figure-1.9)

**Attend a quiz:**
To attend a quiz already uploaded by the faculty the students need to click Quiz button in the student page which shows the list of quizzes available and also the quiz results that’s already been taken (see Figure-1.11) then click Take the quiz button, which will show up the quiz with the option and the time limit. The student will attend the quiz in the given time. (see Figure-1.12)

**View Quiz Result:**
In the same page of taking a quiz (see Figure-1.11) the students will be able to see the result of the already taken quizzes by clicking the View quiz result button and see the number of attempted and the number of correct answers (see figure-1.13).
Submit Assignment:
To submit assignment given during the television show the students need click the Submit assignments button where a new page where they will have to give a group name a password (see Figure-1.14) given during the television program then submit the paragraph in the given space (see Figure-1.15), clicking the submit button will save the assignment in the database.

View News and Events:
The students will be able to see recent news and events put up by the faculties, by clicking the News and Events button (see Figure-1.16).

View lectures:
The students will be able to view and download lecture slides by clicking the Lectures button. A list of available lectures will show up.(see Figure-1.17)

View Videos:
The videos of the television shows of the recent ones will be available in clicking the button Videos the students will be able to view them.(see Figure-1.18)

Post and View Peer Comments:
The faculty is able to view the student assignment along with their peers’ comments by clicking assignments button
The students are able to view their peers submitted assignments and post comments on them (See Figure -1.19).
3.2.3 Non Functional Requirements

Non-functional requirements are constraints that must be adhered to during development. They limit what resources can be used and set bounds on aspects of the software’s quality, thus they tend to restrict the freedom of software engineers as they make design decisions.

**Extensibility:**

The software is to handle any new applications added. And in future we desire to extend the software for the other different subjects that BOU offers. However though large modification may not be required but still the system has extensibility for various new functions.

**Security:**

As we are using a 3tier architecture the database server is completely separated from the client server and the application sever this enforces a better security. The connection to database is secured by valid user name and password. Only authorized individuals will be provided with the administrative password.

**Portability:**

The power of PHP is that it is cross-platform and runs everywhere!! It runs on Linux, Windows 95/98/NT/2000/XP, Solaris, HPUX and all flavors of UNIX. PHP is writing once and deploy anywhere and everywhere. This is why future extensibility on different platform is very much possible.

**Response time:**

According to the system design two severs are separated in two different machines. This increases the performance of the system and makes a system stronger to handle enormous number of client at the same time. Thus the response time is very reasonable.
Reliability:
The system is quite robust. The actions of the clients are so much specified that it’s quite unusual to have unstable actions from the user. Being web-based system it is easily available to the students in any geographical area.

Reusability:
The system is designed in such a way that it may be used by other institution for increasing students interaction and making the learning more interactive.

3.2.4 Technical Requirements:

(3.2.4.1) Hardware requirements

The system being web based we need to perform appropriate actions to be accessible through the Internet. We are using two different machines for application server and database server. Though it can be done in one machine, this increases the efficiency of the system.

(3.2.4.2) Software requirements:
Programming language

- Presentation logic/Business logic : PHP
- Data Access Logic : MySQL

3.2.5 Database Design

We have used MySQL at the backend of the software; in the database we have 13 tables. The details of the tables are shown in the Appendix -
3.2.6 High Level Use Case Diagram

**Students**
- Attend Quiz
- Submit paragraph
- View lectures
- Be Member
- View Assignments
- Log on System

**Faculty**
- Log on system
- Upload video
- Upload lecture
- Make quiz
- View assignment
- Make a group
- Delete a group

**Uses**
- Group log on
- Turn on
- Turn off
- View news & events

**Update database**
Chapter 4

4.0 Limitations and Future Work

4.1 Limitations

As shown earlier, we have used an Excel prototype in our testing session. In that software after gathering the sentences they have been sent by the student through SMS, we needed to separate them as correct and incorrect ones. In the testing session the teacher had to separate the correct sentences, but these process may causes some trouble as between the advertisement break of the television program, the teacher is suppose to gather the correct sentences which may not be possible within the break time., depending on the number of SMS’s. But this can be solved by using an NLP parser incorporated with the Excel software. The final portion of our project that is the web based application has been developed considering the requirement of BOU administration and the students. But due to absence of our advisor and certain coordination of BOU testing in the BOU server has not been possible. But the application has been tested in the Local host of BRAC University and used by the students of BRAC.

4.2 Future Works

In future we expect to install the entire designed system in BOU. We may also write a paper that will automatically separate the correct and the incorrect sentences and we will be able to run the television program efficiently.

With BOU’s support we may also develop similar pedagogy for other subjects that BOU provides, and extend the well used software for those subjects also. To further enhance the SMS method of interaction we may request the telecommunication services providers of the country for support.
Chapter 5

5.0 Conclusion

Concluding Words:

Distance education is a system by which learning can reach people’s homes, and the only Open University of Bangladesh that practices distance learning is Bangladesh Open University (BOU). All most all over the world English is used widely, and due to lack of English proficiency the students of Bangladesh are not able to flourish of all their knowledge. Day by day the usage of English language increasing, once the students develop English proficiency they will be able to use it to learn other subjects too. Through our develop pedagogy, are re-designed television program and our extended support with web based interactive application, we hope learning English will be fun and students will be encouraged to join distance learning system in BOU and develop their English proficiency.
List of Figures

(Figure 1.1)

BOU Teacher (Admin) Login

<table>
<thead>
<tr>
<th>BOU (Bangladesh Open University)</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you are motivated, self-disciplined, and eager to further your goal. Bangladesh Open University offers 2 (two) types of programs. It has already launched 21 formal and 19 Non-formal programs.</td>
</tr>
</tbody>
</table>

BOU (CELP) Student

<table>
<thead>
<tr>
<th>English as a Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>English is a difficult language because of its many irregularities.</td>
</tr>
</tbody>
</table>

(Figure 1.2)

Welcome Teacher at BOU,

In this page, you can perform a number of tasks that will help you develop a distance education mode to learn proper English.

You can perform a number of tasks here. Each box on the left performs different:

- **Members:**
  - You being the teacher, you have the privilege to allow other teachers to be mem-
  - Use this same site you can provide membership grants to them.

- **Lectures:**
  - The lectures that are transferred through media such as television are someti-
  - Use this site to view the lectures and use them to

- **Videos:**
  - The show that are aired on television are usually missed by the students due t
  - View the videos through this website. It would be an impressive advantage to

- **Quiz:**
  - Now you can build up a quiz for the student so that they are in practice. For th
  - Also allow the student to properly enhance their skills.
(Figure-1.10)

Welcome dear students of BOU,

In this page you can perform a new distance education course.

You can perform a number of tasks:

**Submit Assignments:**

You can submit your home assignments. Otherwise you cannot submit your assignments.

**News & Events:**

Any upcoming events or news on the news and event page be sure to check.

**Lectures:**

The lectures that are transferred notes from the site so that you can view them.

**Videos:**

(Figure-1.11)

Collaborative English Learning Program

<table>
<thead>
<tr>
<th>Quiz</th>
<th></th>
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<tbody>
<tr>
<td>Module 3 Exam - CCNA 2 Router and Routing Basics Version 3.1</td>
<td>Take the Quiz</td>
</tr>
<tr>
<td>Module 4 Exam - CCNA 2 Router and Routing Basics Version 3.1</td>
<td>View Quiz Result</td>
</tr>
<tr>
<td>Introduction to grammar</td>
<td>Take the Quiz</td>
</tr>
</tbody>
</table>

(Figure-1.12)

Introduction to grammar

Time Remaining: 59:58

Total Question: 3

1. Halloween was a christian festival. What is the mistake here?

- A. Was
- C. Christian
- D. Festival
- A. Halloween

Next

(Figure-1.13)

Collaborative English Learning Program

<table>
<thead>
<tr>
<th>Quiz</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
<tr>
<td>Number of Question: 11</td>
<td></td>
</tr>
<tr>
<td>Write Answer: 5</td>
<td></td>
</tr>
<tr>
<td>Percentage Mark: 54</td>
<td></td>
</tr>
</tbody>
</table>
Figure 1.14

Figure 1.15

Figure 1.16

Figure 1.17
Topic: Queen Elizabeth Park
Description: Queen Elizabeth Park, filled with the scent of pine and cedar, gives me much pleasure when I walk my dog. QE park, as the neighbours call it, serves as a beautiful place to go the lower reaches, which I prefer, offers evergreens, a pond, and a stream. Tasha loves to sniff along the stream banks. When we round the hill to the south side of the park, if we’re lucky that day, we catch the sun as we walk into the wind on the crest, where the trees of Oakville Island and Tanners Island await and the air smells like fresh line-dried seaweed. Then, we head down the steep hill amid the trees on the west side of the park, down to where the ground is marshy and the ducks swim on a large pond. QE Park speaks softly when we are walking.

Post a comment on this paragraph:

Post Comments
Appendix A

Surveys and questionnaire in BOU and IER

Questionnaire 1

1. Do you think that television can be a mode of education?
   A. Yes     B. No

2. Which do you rank to be the most prospective mode of distance education?
   A Radio
   B Television
   C Internet

3. What subject do you think is appropriate on television?
   A. English
   B. Math
   C. Science

4. Give your view on what do you want on a educational television show (you can have more than one answer)
   A. More instructive.
   B. Not Organized.
   C. Much organized than the normal classrooms.
   D. More Interesting
   E   A, C & D

5. Will many educational sessions are you prepared to view every week?
   A. 1
   B. 2
   C. 3
   D. 4

6. Which mode of information gathering do you find most effective?
   A. Teacher interacting with student during the show.
   B. A group of student discussing on a topic (no teacher present).
   C. A video related to the topic is run on the show.
7. Which mode will you use if you need to participate in the show?
   A. SMS
   B. E-mail
   C. Post mail
   D. Telephone
8. What software platform for the show do you think will be most appropriate?
   A. MS EXCEL
   B. VB
   C. MS POWERPOINT
9. Which process do you think is appropriate in the brainstorming of the student?
   A. Individual
   B. Group
   C. SMS Grouping
10. If you are writing an English paragraph which kind of story do you prefer?
    A. Personal Experience
    B. Narration
    C. Biography
Questionnaire 2

1. Was the television session interesting?
   A. Yes
   B. No

2. If No, then what is the reason?
   __________________________________________________________
   __________________________________________________________
   _____________________________

3. What are our feelings about the SMS based Interactive system
   A. It made you feel more involved
   B. Gave you a feeling of being in a class
   C. Helped you to be more interested to the session
   D. Did not like it because there was not enough time to SMS

4. During the session the teacher calls back a student who gave a wrong answer. Then he helps him/her to correct his mistake. What are feeling about that?
   A. Gave a feeling of contact with the teacher
   B. It felt that the students’ mistakes were taken into account
   C. It felt more encouraging for the student to send more sentences
   D. It was totally unnecessary
# Survey Result

## Drop outs rate

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<th>Percentage</th>
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<tr>
<td>2004</td>
<td>22.01</td>
</tr>
<tr>
<td>2005</td>
<td>22.94</td>
</tr>
<tr>
<td>2006</td>
<td>35</td>
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</table>

<table>
<thead>
<tr>
<th>Questions</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Most student assignment or works in English were low in standard or lacked substance</td>
<td>74%</td>
</tr>
<tr>
<td>2. Due to lack of English knowledge students fail to properly understand subject matter.</td>
<td>58%</td>
</tr>
<tr>
<td>3. Student lack in grammatical expertise rather than creativity</td>
<td>78%</td>
</tr>
</tbody>
</table>
Pie chart for the Questionnaire 1

- Students who prefers TV, SMS and prefers English as the subject
- Student who do not prefer TV but are interested in SMS based interaction
- Students who are not interested at all and doesn't prefer the prospect of distance learning
- Students who does not prefer television, or smsm but prefers radio over TV

Feedback at BOU

- Students who found the session interesting and felt more involved due to SMS based interaction
- Student who found the session interesting but felt that the SMS based interaction lack time management
- Student who were not impressed by the session and found it complicated
Feedback at IER

The following graph is from a survey done on a group of 60 students at IER they also viewed the program and participated through SMS. After the session we had the same feedback session with the students and the result of their answers were as below

- Students who found the session interesting and felt more involved due to SMS based interaction
- Students who found the session interesting but felt that the SMS based interaction lack time management
- Students who were not impressed by the session and found it complicated
### Appendix B

**Data Dictionary**

#### Table name: tbl_admin

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#### Table name: tbl_discussion

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Appendix C

Interactive English Learning program Script

{Camera<presenter>}

Assalamualaikum. Today we are going to have a “Collaborative English writing session”.
You will need a mobile set to interact with the program.
During the lesson you would be asked to sms your sentences and choices to 6161.

{Click on slide}

{1} At the beginning you must register for the program.
{2} For this you must send your name and tutorial center code.
{3} For example if your name is Sakib and you are registered to tutorial center number 101 you must sms “sakib T101”.

{Click on slide 2}

To answer the questions you must do the following.
{1} If the question number is 2 and you want to select choice b
{2} Type “q2b” and sms to 6161

{Camera<presenter>}

In the studio currently we have two students.
Assalamualaikum. Can you please tell your first name

{Camera@student1>}

Student 1 => <name>

{Camera@student2>}

Student 2 => <name>
Welcome.

I am sure each and every one of you have faced or witnessed unethical deeds by someone somewhere.

We would focus on such a story and start writing our paragraph using that story.

Student 1 has a story to tell us.

It was our school's final exam. We had our math's exam. There were two good students at my class. That day during the exam they made a mistake in their exam. Therefore they waited till everyone left the school. After that they went in to the teacher's room and changed the mistake in the scripts. Next day, when our teacher handed out the papers. They challenged the teacher. She thought it was her mistake and gave them the marks they never deserved.

That sounds like an interesting story we can make a paragraph from that. What do you thing student 2?

Yes sir but we need more information.

Yes let's gather them.

So we must find the answers to the question that we shall ask to student 1 (name) and write them down as the key points for our paragraph

1. Student 1, when and where did it happen?
It happened when I was in school and it was in a classroom of my school when we were having a quiz.

So we have our first information so we can write down our first bullet.

Next who were present in the story?

I think there was my teacher; there were two girls who cheated and my classmates.

So we can see that mainly the teacher and the two students are the important people in this story.

Our next key point should be.

Next I must ask you.

What happened that made you feel that there was an unethical situation.

The students were good student. I did not understand why they changed their mistakes when teacher was away.
Later they charged her and confused the teacher and were getting the marks that they didn’t deserve nobody in the class protested.

{Camera<presenter>}

So we have some more bullets

{Camera<Slides>}

- {4} Two girls made a mistake
- {5} Corrected their mistake unethically
- {6} Got undeserving marks

{Camera<presenter>}

Student 2, do you feel like giving any bullet? Or what do you think about the bullets.

{Camera<Student 2>}

Sir from the story one thing amazed me the most. The thing was that this unethical act was done by two good students And they did it for mere two marks

{Camera<presenter>}

So we have a more bunch of point or bullet

{Camera<slide>}

- {7} Students were good students.
- {8} They cheated for two marks

{Camera<presenter>}

We have a set of bullets now.

We must now help student 1 write this story.
We shall write an introductory sentence for this story.

The sentence must be correct and interesting and it can be written from any of the key points given.

{Camera<Slide>}
{CLICK 1}

Now to write an introductory sentence for the paragraph we can use one of the key points for e.g.

- **Teacher and two students**

We can also start with a different approach can be something creative but it must be able to relate to the paragraph.

{Camera<Next Slide>}

{CLICK 1}

You must sms your sentence through sms at 6161.

You will have two minutes to sms.

In the meanwhile we shall go for a break.

{Camera<presenter>}

We have received sentences from the students.

{Camera<slide>}

We have 10 correct and 4 incorrect sentences.

{Camera<presenter>}

Others who had mistakes in their sentences will receive their sentences with the mistakes underlined and the types given.
Let us choose 4 correct sentences that can be used as an introductory sentence and give them options.

{Camera<slides>}

{1} A. The school quiz was scheduled on that day.
{2} B. The final exam at Dhanmondi tutorial was going on.
{3} C. I remember that we had a quiz that day at school.
{4} D. The incident happened when I was in school.

{Camera<presenter>}

Now I would ask you to choose the most appropriate sentence from the lot.

You must either type

   _ S1a   S1b   S1c   S1d

And then sms at 6161

We give you 60 secs for sms.

{Camera<slides>}

From the graph we can see that

{1} 10% choose A.
{2} 20% choose B.
{3} 45% choose C.
{4} 15% choose D.

{Camera<presenter>}

Therefore C seems to be the most wanted answer. Therefore we start our paragraph with the sentence C.

{5} I remember that we had a quiz that day at school.

So we can use the sentence as your starting sentence if you want or you can use your own.
Now let us dial randomly one of the participants who sent a wrong sentence.

1) The sentence was "It is an incident which happened on my exam day."

[Computer dials... the dialing can be heard]
[Person picks up phone]
Main presenter looks directly at the camera: Assalamualaikum!

[Voice of unseen student] Walaikumassalam, sir!
Main presenter: Can you tell us your name please!

Unseen student: Yes, sir, my name is Nazifa.
Main presenter: Nazifa, can you tell us why your sentence is wrong?

Unseen student: No sir.
Main presenter: You had grammatical errors.
   - happened and is are two different tenses used in one single sentence which is incorrect.

Unseen Student: Thank you sir

1) Now we shall ask the students here to write the next sentence.
2) This time around it is necessary that we use one of the key points for the sentences.
3) We shall ask you to sms and decide which of the sentences are better.

Student 1, What is your sentence?

I remember that day we had a quiz at school. It was Mr. Mosharaf’s math class.
Okay, very well. Now student 2 what’s your sentence?

I remember that day we had a quiz at school. Mr. Mosharaf, our math teacher was the one who was taking it.

Now you must choose the best among these sentences and let us know which one you like.

You must either type

- S2a S2b

And then sms at 6161

We give you 60 secs for sms.

We have received your sms

As we can see from the graph

{1} 35% choose A.
{2} 65% choose B.

Therefore we choose b

I remember that day we had a quiz at school. Mr. Mosharaf, our math teacher was the one who was taking it.

Using the way we showed you must use all the key points given to build your paragraph.
You can use the method of feedback that we used through sms here. With your groups.

Make your fellow group members to comment on your complete writing

I hope we have given you a process to proceed with your writing.

Dear Student please complete the whole story, mail or post the paragraph along with the comments to cdli@bou.net or post it to the Bangladesh open university moodle server for this course

That's all for today. Thank you
References:

1. Dr. Yousuf Mahbubul Islam  
   Thesis supervisor  
   Assistant Lecturer  
   BRAC University

2. Dr. Sayeed Salam  
   Acting supervisor  
   Head if the department  
   CSE department  
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4. Md. Saifuddin Khalid  
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   School of Engineering and Computer Science  
   Independent University

5. Mr. Jewel  
   Bangladesh Open University

6. Fahim Tawfique Chowdhury  
   Research Assistant
Center of Research for bangle Language Processing (CRBLP)


9. Education Media (book)
   M.M. Chowdhury

10. Teaching at a Distance
    Inayat Khan

11. BOU (Bangladesh Open University) and ELPRO Faculties

12. BOU students

13. IER (Institute of Education and Research, Dhaka University) Student

14. BRAC University Students