

# Implementing Andragogy using Multimedia Courses

Naushad Patel  
Dept of Computer Engineering,  
M.H.S.S College of  
Engineering

Shoyeb Memon  
Dept of Computer Engineering,  
M.H.S.S College of  
Engineering

Zoyeb Khan  
Dept of Computer Engineering,  
M.H.S.S College of  
Engineering

Zainab Pirani  
Dept of Computer Engineering,  
M.H.S.S College of Engineering

## ABSTRACT

This project introduces the development of an effective self-learning environment for adult user. The proposed system will be designed and constructed using the .net system with a suggestive infrastructure for this type of system. Research showed that the requirements of the adult users were very receptive to the interactivity, accessibility, and according to convenience of the system. The project will be used for teaching the adult only. Despite of the radical changes made by the teaching management educators have continued to use the archaic term pedagogy for describing their work. The word pedagogy refers to teach the children only whereas andragogy refers to teaching of adults. Thus, pedagogy does not fulfill all the needs and requirements of teaching adults in classroom and management of them in today's environment. To ensure congruence with the emerging methods of teaching management, we advocate adoption of the term andragogy. [1]

## General Term

Andragogy, Multimedia, Education.

## Keywords

Andragogy, E-Learning, Adult Learning, Design.

## 1. INTRODUCTION

Andragogy theoretically means practice of education for adults in day-to-day life. Andragogy is a combination of two- word andro, that means "of men" and the second word gogy, which means, "to lead", it arose from the practice of pedagogy that address the study of children, which is different from Andragogy that is for adults. The aim is learning for adults which shows the importance of the online education which that is built on the basis of needs of an adult who continues the respective education. Adults should know why they have to learn different what they already know. The project aims to as a system for simplifying the problem solving for adults.

Information when combined with the communication technology it plays an important role in the process of knowledge management; helping adults to prepare academically, to learn and solve lots of different problems more effectively. It is the most important part to figure out the how to implement all the principal of adults in the learning process.

Multimedia has been an important educational tool in learning environment. A general definition of Multimedia is agglomeration of digital manipulated scripts, images, audio and video elements with interaction of another multimedia, making it interactive multimedia. Multimedia, when integrated with studying through the online education, provides utility for technological tools that produces different varieties for learning techniques without presence of the educator.

Using multimedia as a source of teaching for adults one should keep in mind things such as content quality, feedback, interaction usability, accessibility, presentation design, and reusability. The proposed system will be serving the goals of adult learning by combining the multimedia and online education. The adult learning principles are as follows:-

- **Supervising**  
Adults think that they are responsible for their lives as well as for their own learning process. But they need some type of assistance. Therefore, they must be under the guidance of some kind of instructor or educator.
- **Implementing rather than learning**  
Adult mostly gain knowledge practically, which they can quickly and easily implement in their day to day life as well as in their work, and prefer practical information that will ameliorate their skills, improve their work and foster their confidence in what they are doing. Thus, it is most important for a course to be created that will cover their individual needs.
- **Myth of learning connected with aging**  
Human compels to learn more as they are aging and the myth of slowing down the process of learning is false. However, the depth of learning tends to increase as the increase in age as time passes by.
- **Previous knowledge as a resource**  
Adults have gained more experience in their life and done more work, they can connect their experiences to new concepts based on studies that they have learned. Hence it is very difficult to form a pattern with adults that have common experiences which will boost them for interaction and creating a learning cluster, which consists of people who can share knowledge with each other.
- **Motivation**  
In adulthood the choice of learning is to rectify skills which help to achieve the professional growth in life. This motivation is the only force behind learning of an adult person.
- **Multi-staged commitments**  
Adult learners who work have lots of things besides continuing the studies as they have family to look, job, friends and they need sufficient time for themselves. So it is a problem for adults to adjust time for learning new techniques that keeps on emerging hence it is important to overcome these situation. Considering those situations, it's the duty of the designer to create a flexible program, so as the learner can plan his studies in his tight schedule and accepting the fact that their work does not get affected.

- **Increased Demand**

Adult learners demand they need to be taught things related to their work, they also require results to be applicable in their work. Adults seek for a course that will take less time and money. Thus main aim is to create a course that is beneficial for adults and meets all the needs and the challenges that they face through the learning process.

## **2. LITERATURE SURVEY**

Andragogy system brings together the age of people above 40 who re motive to learn. The system will help them to learn new things easily. The existing system focuses only on the need of adultery, examine analyses only which we need to overcome in our system. The existing system doesn't fully satisfies the needs of the user there by making it inconvenient for the user to openly access the system, the existing system provides web based assistances but does not completely satisfies the needs of the user. It does not examines the various skills of the user like reading skills, writing skills etc.; which have to be included in the system .to justify this various papers are studied.

This helps to overcome the different drawbacks of the existing system. The objectives are:

- Studying the need of the adults clearly.
- Examine the various skills of the user.

The existing system has a barrier in internet access due to several anomalies thus due to this several papers are incurred and scrutinized. Then it is properly deciphers the barriers of internet access anomalies .Furthermore, the existing system is more time consuming and cost consuming which subverts the system capabilities. To overcome this several papers are studied. [2]

With the help of this paper it overcomes the consuming anomalies and the cost consuming anomalies.

The goal is to examine certain important facts which are as follows

- Relative advantage
- Compatibility
- Complexity
- Information quality
- System quality
- Service quality

These facts bolster the adults for e-learning system for learning process. There is a drawback in most universities regarding e-learning process. This existing system should contain all those things that a system needs. Information quality has a significant impression on online learning. The benefits of the efficiency, availability, security and clarity of information should be recognized to increase e-learning process.

In the existing systems it studies the adults who work efficiently bus lack in critical thinking and are unable to do problem-solving decisions here due to this there incurred various problems. Further, it is only beneficial for those who have reached at a higher level so in order to take self-decisions and problem solving materials different ways can be carried out to project-based courses, assumptions, self-reports etc. To overcome this we studied.

- With the help of this paper it overcomes professional level teaching in various fields
- How study material should be prepared on site

Adult learners learning through their own ways lows, down the learning rate. By advocating learners to shift from the contemporary world to digital world the idea is to aggrandize the knowledge in both physical and virtual spaces. Thus it overcomes the learning styles and the habits of adult learning. [3]

Adult education is to captivate attention of the developers of society, to encourage adults for lifelong learning and continuation of learning more in a modern way. It is a unique idea in the online learning in life education. [4]

## **3. EXISTING SYSTEM**

Contemporarily there is a system Khan Academy which support Andragogy as well pedagogy. But they don't include online evaluation of skills like reading, writing, listening .this is a drawback because the person if having any difficulty in reading or listing there will not be any aid to teach them in different way.

The drawbacks of the system are:

- It has already specified the age limit of the user and also the type of the user.
- It lacks different factors of teaching based on visual, oral and writing.
- It focuses more on children learning rather than adult learning.
- The cost Factor is also a drawback of the system.
- It is not an interactive system. The problems are not solved by the system.

An infed.org is an academy, which supports andragogy and pedagogy but there are some limitation that do not correspond to the online exam system.

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- It has already specified the age limit of the user and the type of the user seeking knowledge.
- It lacks different factors of teaching based on visual, oral and writing.
- It focuses more on children learning rather than adult learning.
- The cost Factor is also a drawback of the system.
- It is not an interactive system. These problems are not solved by the system.
- It lacks interaction between the teacher and the student.

## **4. PROBLEM STATEMENT**

The existing systems of Adult learning are sometimes too complicated for the users to understand. The learning institutes must seek every avenue for impairment to cope up with new demands for learning process. E-Learning system should be transformed with formidable learning system so that more and more people can seek informal education irrespective of their age. This problem can be solved by using multimedia concept in Learning. Due to multimedia, the learning technique becomes more effective. Adults can be

taught by their ability to see, hear, read and write. These abilities can be converted as techniques. If Adults finds any difficulty in any of their abilities then the rest of other techniques teach them. The drawback of this is the change in the abilities of the Adult such as read, write, and hear, etc. may change during the duration of the course

## 5. PROPOSED SYSTEM

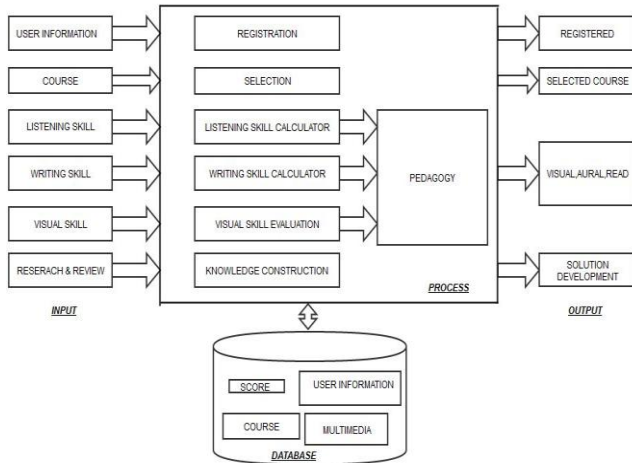


Fig -1: Proposed System Diagram

According to the proposed system there will inputs which will be processed to get the desired output.

### 5.1. The inputs given to the system are as follows:

#### 5.1.1. User information

It includes all the information about the user. The information will be his name, qualification, gender etc. All this information will be used as an input to the system so that there is no conflict as some user could have same name but they could be differentiated by their qualification or other details.

#### 5.1.2. Course

Course plays an important factor as if what are the courses including in our system. It's important to include the course which would be useful to end user. Courses are to be included with a viewpoint that it will help the end user for over a long period.

#### 5.1.3. Age

In our project, the age is an important factor as the term andro means adults. We are focusing on teaching adults. We will be focusing on adults whose age is greater than 40 as they are self-motivated because of emerging technology many people are getting attracted towards it and they want to learn.

#### 5.1.4. Listening skills

In this, we are going to give a test to then end user to check that whether the end user will be able to grasp the information by just listening to the audio clip.

#### 5.1.5. Writing Skill

With the help of this test we are going to know whether the end user can read and write. As in while you are writing you need to read first and write. Hence, by taking writing test we are able to know both his writing as well as reading skills.

#### 5.1.6. Visual Skill

In this we are going to show a video to the end user. Once the video is finished, a question will be asked as if what the end user has understood from a video.

#### 5.1.7. Research and Review

As the end user continues the course he would do some research on the course thus helping him to gain more information.

### 5.2. These inputs are given for processing which are as follows and processing system is as follows:

#### 5.2.1. Registration

It is the process done only one time by the end user. The end user needs to register to the system as it makes the user eligible to use the system officially.

#### 5.2.2. Selection

In this process the selection of the course-id is done.

#### 5.2.3. Compare

It is a process in which we are going to compare the ages of the end user and according to age we will be creating a range of user such as 41-50 will come in one group where as 51-60 will come in another.

#### 5.2.4. Listening skill calculator

It will be used by the system to process the test given by the end user and generate a result.

#### 5.2.5. Writing skill calculator:

It will be used by the system to process the test given by the end user and generate a result.

#### 5.2.6. Visual skill evaluation

It will be used by the system to process the test given by the end user and generate a result.

#### 5.2.7. Pedagogy

It is going to take the result from all the tests and will decide a method which will be the best method by which the end user will be able to understand the course properly.

#### 5.2.8. Knowledge construction

It's an ongoing process because as the end user keeps on researching about the course the knowledge of user will keep on increasing.

### 5.3. As the input is being processed by the system they will generate an output those are as follows:

#### 5.3.1. Registered

After the registering of the user in the system, the user will get the access to the system for using its contents. The user will be able to access all the functions of the proposed system.

#### 5.3.2. Selected course

There will be many courses and it completely depends on the end user that which course he wants to select. Once a course is selected the user can start the learning process.

#### 5.3.3. Visual, Aural, Read

These are the three methods of the system to carry out the learning process. These methods will be selected by the

system on the bases of the results. Users can learn from any or all of the above methods.

#### 5.3.4. Solution development

At the end of the syllabus and the tests, the end user will have complete information of the course selected. Thus it increases the user's knowledge.

### 5.4. Each system has a database which is very important as all the information are stored and they are as follows:

#### 5.4.1. User information

In this all the information about the user will be stored in the database. The information can be user name, qualification, gender contact number etc.

#### 5.4.2. Score:

Here all the result of the end user will be stored. The score is the marks obtained by the user after giving a number of tests conducted by the system.

#### 5.4.3. Multimedia

Multimedia refers to content that uses a combination of different forms. In this system the audio, video will be stored here.

## 6. IMPLEMENTATION

The following screenshots of the application specifies the information that has to be provided to the user

The screenshot shows a yellow background with two login sections. On the left, under 'ADMINISTRATOR LOGIN:', there is a red 'Proceed' button. On the right, under 'USER LOGIN:', there is a red 'Proceed' button.

Fig -2: Selection Page

Figure 2 shows the page where the admin and user need to select their respective domain for the website i.e. admin need to select administrator and user need to user.

The screenshot shows a yellow background with a 'Sign In' header. Below it, there are three input fields: 'Domain:' with a dropdown menu showing '----Select Domain ----', 'Login ID:', and 'Password:'. At the bottom, there are 'Sign In' and 'Reset' buttons, and a blue link for 'Change Password'.

Fig 3: Sign In page

Figure 3 shows the sign in page for both administrator as well as user.

The screenshot shows a yellow background with the title 'Manage User'. It contains several input fields: 'Login ID:', 'Emp ID:', 'Name:', 'Manager:' (with a dropdown showing 'Test2'), 'Sup:' (with a dropdown showing 'Test1'), and 'Access:' (with a dropdown showing '20'). Below these are buttons for 'Delete', 'Clear', 'Update', 'Create', and 'Reset Password'. There is also a 'Bulk Upload' section with a 'Browse...' button and 'No file selected.' text, and a 'Validate' button. At the bottom right, there is a 'Confirm Upload' button.

Fig 4: Manage user

Figure 4 contains the page where the admin can manage user details upload the details of the user.

The screenshot shows a yellow background with the title 'Question entry'. It has two main sections: 'User Details' and 'Data Entry Section'. The 'User Details' section shows 'Name: Test User', 'TL: Test1', 'Manager: Test2', and 'lblClock'. The 'Data Entry Section' contains fields for 'Quest Level' (value 1), 'Category' (value Engineering), 'Question', 'Option 1' through 'Option 5', 'Score' (value 1), and 'Correct Answer'. A 'Submit Query' button is at the bottom.

Fig 5: Question Upload

Figure 5 will be for admin to upload the question for the quiz and assign the marks as per question.

**Fig 6: Report Generator**

In this page a report will be generated by the admin on request by the user.

**Fig 7: Quiz page**

Figure 7 contains the quiz page which will be for the user so that user can give the exam.

| Date     | Test Category | ActualScore | MaxScore | ObtainedRate | TimeTaken  | Remark |
|----------|---------------|-------------|----------|--------------|------------|--------|
| 2/2/2016 | Science       | 12          | 25       | 0            | 14 minutes |        |
| 5/2/2016 | Mathematics   | 20          | 25       | 0            | 18 minutes |        |
|          |               |             |          |              |            |        |
|          |               |             |          |              |            |        |

**Fig 8: Report page**

Figure 8 contains the test progress report which is issued by the admin to the user on request of the user.

**Fig 9: Change password**

This page consists of changing password if the admin/user wants to change it.

## 7. FUTURE SCOPE

This project can extend in future by developing android applications for the users. The website can be introduced with some more and new features according to the user's need.

New Syllabus and modification can be implemented in future. New Subjects can be introduced and database can be further extended.

## 8. CONCLUSION

The documentation for the web-application system called as "IMPELEMENTING ANDRAGOGY USING MULTIMEDIA COURSES" has been successfully completed. With the completion of the procedure for designing and planning for the web application system, its implementation will be processed in the next semester. Acutely study and analyze of the features and functions is carried which will be included in the web application. This application will facilitate the Adult learning through a more systematic and easier way.

## 9. ACKNOWLEDGMENT

Our thanks to M.H. Saboo Siddik College of Engineering, Department of Computer Engineering, for giving us the initiative to do constructive work. We also thank anonymous reviewers for their constructive suggestions.

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