

Assistive Technology For Slow Learners Enrichment

Gokul kumar.R¹, Geethamani G.S²

²Associate Professor Dept of Information Technology

¹Dept of Information Technology

^{1,2}Hindusthan college of Arts and science, Coimbatore.

Abstract- The purpose of this study was to examine the effects of a programming model that was specifically designed to apply some of the technology of gifted education to the overall process of school wide enrichment. Data analysis revealed positive changes in student and teacher attitudes. Student creative products were numerous and exceeded the norm of typical student creative output. Most notable among qualitative data analysis were: remarkably favorable changes in attitudes toward education of the gifted on the part of classroom teachers and the general student population, large increases in student centered enrichment activities and work on self-selected interests, greater cooperation between classroom teachers and gifted education specialists, and more favorable attitudes toward special programming on the part of parents. The specific factors examined were student attitudes toward learning, teacher attitudes toward teaching, the extent and quality of students' creative productivity, and the processes involved in the implementation of SEM. Two overall goals of the project is

(1) to determine if a school's participation in this type of program would result in specific and quantifiable indicators of school wide change

(2) to examine whether or not such participation would result in more favorable attitudes toward the entire concept of gifted education.

I. INTRODUCTION

1.1 PROBLEM DEFINITION

A very big problem that every school faces is the difficulty to deal with the slow learner students. It is a challenging task for teachers tackle slow learners and to make them learn the academic subjects. This problem can be solved by developing a tool for slow learners based on their syllabus. Therefore, it is a technological platform for slow learners to learn easily.

1.2.1 Slow Learners

The term "slow learner" is given to a student who has the ability to achieve scholastically, but, tends to work below the grade level average. This type of learner will typically score lower on IQ tests or national achievement tests, but not so low that a "special education".

1.2.1.1 Characteristics of Slow learners

1. They are capable of being educated in ordinary schools and even achieving a moderate degree of success, if they are allowed to proceed at a slower pace and the syllabus is adapted to suit their abilities.
2. They will not be able to keep pace with the average students and never be able to learn all the things we expect normal students to master by the time they leave school.
3. They will not be able to go for higher studies despite all the guidance and educational facilities made available to them.
4. They have poor memory. And their attention is short and they cannot concentrate on one topic for long time.

1.2.2 Identification of slow learners in a classroom

Early diagnosis of slow learner student is very necessary between the ages of 2 to 6 years. Teachers or parents can identify that the student is a 'slow learner' with a careful observation. They could easily identify some of the signs of a 'slow learner' as follows:

- Speech defect
- Language development problem (broken sentences)
- Assessments the level of vocabulary (vocabulary limited)
- Verbal abilities
- Short sentences, grammatically incorrect
- Student Behavior
- Spelling Mistake
- Interaction with other students
- Class room Discussion
- Reading problem
- Interest

- Slow response/decision making

II. EXISTING SYSTEM

In existing system, websites only contain information regarding slow learners such as characteristics of slow learners, remedies and methods for improving their learning. But this information doesn't help slow learners to improve their academics.

DISADVANTAGES

1. No science website for slow learner students particularly in state board syllabus.
2. The lack of interest will decrease their confidence level.
3. No self learning and redoing tests for academic subjects.
4. Slow learner students are not able to learn independently.

So an application or a tool based website for slow learner can help them in learning their academics.

III. PROPOSED SYSTEM

The paper is developed as self learning website for slow learner students through audio/video concepts. The progress of the students is through periodical assessment. There is a redoing testing to get an impotent and to develop their knowledge. A student score card is generated to understand the performance level.

ADVANTAGES

1. Assistive technology based science learning tool enhances the learning and teaching aid between students and teachers.
2. It is a user-friendly interface and has various interactive features like online test with Results, Study materials, Video Classes and Exercise.
3. Video, graphs, tables and pictures, are used in wide range that helps the students to concentrate. There is a suitable video session for each grade.
4. A slow learner student doesn't need to spend more time in learning.
5. Slow learner student can learn independently.

IV. DESCRIPTION OF MODELS

4.1.1 User Registration Module

The initial module of this project is the registration phase. A user can access this learning tool by registering their basic details such as student name, student id and student password etc. The registered student detail is maintained in the database for process such as login. This page is designed by using HTML, CSS and PHP.

4.1.2 Login Module

The student can login into system to access the learning tool effectively. This is done by providing the required user name and password which they have registered previously. This module is responsible for updating the information continuously if any, in the system so that one can find timely information.

4.1.3 Grade I-III Module

The learning tool focuses on grade I-III levels. In order to enhance the student learning process, initially the above mentioned three grade students of TN state syllabus is collected. Based on the syllabus of the students the learning materials and video is developed in this tool. In that, there are two sub modules such as,

1. Term module
2. Syllabus module

4.1.3.1 Term Module

Each grade has three terms. The students click the term-I it will display the syllabus. This page designed with PHP, HTML, CSS, JQUERY and Photoshop.

4.1.3.2 Syllabus Module

The science subject is considered for the dataset tool, therefore grade I-III state board science subject materials are collected and the materials are uploaded in the site. This module is designed with colorful images, attractive lesson videos, and activity videos to impress the students. This level of development is helpful to learn the science easily and joyfully. The Audio and video files are uploaded by using HTML coding. The page is designed with PHP, HTML, CSS, JOUERY and Photoshop.

4.1.4 Test Module

In the testing module, the basic activity test is performed to check all kind possibilities. All the activities in this section are based on the lesson which they were learned on that section. This module shows how the students learning

performance will be increased before and after using this tool. Before starting the test students watch the activity video which is very helpful for how to attend the test. If the student fails again watch video and attend test. Redoing test will help student practice at least one of the skills will be developed. This Activity page was designed in PHP, HTML, CSS and JQUERY. The Audio and video file is uploaded by using HTML coding. Activities will help to find the student learning capacity and their observation level, by practicing them will be getting improvement.

such as requirement analysis, design phase, testing and finally followed by the implementation phase which results in a successful project management. These are analyzed step by step and the positive as well as negative outcomes are noted before the final implementation.

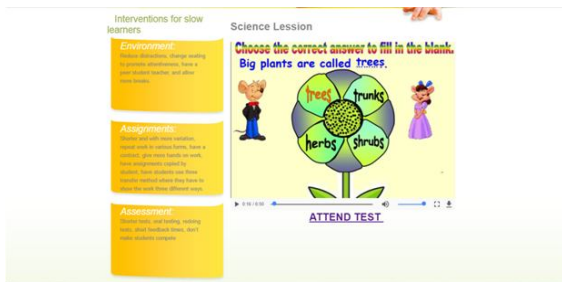


Figure 1. Test video page

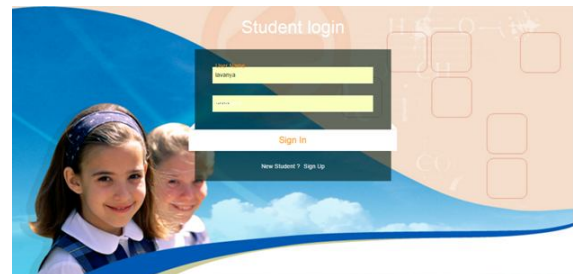


Figure 2. LOGIN PAGE

This application developed were implemented in Avinashilingam primary school for Grade I and Grade III Slow Learner students. The students learned the lessons from the videos and attend their activity test. After attending the test, the students were able to view their scores and also their self analysis report.

4.1.5 Report Module

The reporting module provides the details of login, users and performance efficiency report. This module includes time report, test report, self analysis report, date wise report, registration report and feedback report.

Time report is students how many time view this lesson videos. Test report gives student activity score in the report. Self analysis report shows how the students self learning performance will be increased using this tool. Date wise report shows in particular date how many students are using this tool. Registration report shows how many users registered in this tool. Based on feedback report of the reviewers, the tool will be improved. This report page was designed in PHP, HTML and CSS.

4.1.6 Feedback Module

In the Feedback module, the feedbacks are collected in order to improve the performance of this self learning tool. Initially the feedback from the student side is collected, based on the student reviews which support the improvement of the learning tool. This page were designed in PHP, HTML and CSS.

V. SYSTEM IMPLEMENTATION

Implementation is the process of installing the software into the system so that it will be provided with original data to process. There are various cycle processes

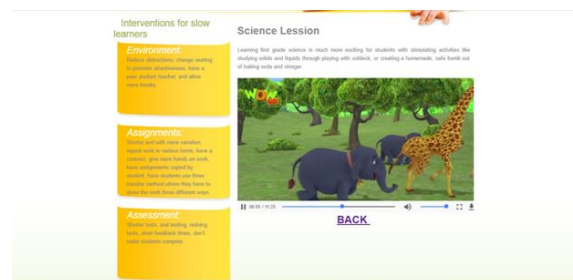


Figure 3. Lesson video Page

VI. CONCLUSION

This project is done for the development of a website for slow learner students grade I-III based on assistive technology. The website has been developed to have state board syllabus, videos based on their syllabus and activities to be done. The existing system does not have any such website which promotes the learning skill of slow learners. But the proposed system is creating a tool which will be useful for slow learners as well as normal students. This tool can be used by any individuals. With any assistance for the users and can be used from anywhere at any time.

VII. FUTURE ENHANCEMENTS

In future, the system can be enhanced which will be more impressive and more sophisticate system to the user. In proposed system, grade I-III is only taken for dataset, whereas in future this can be increased for all grade levels and also

other subjects. The system can also include attractive videos for the students to gain their attention. Also some types of experimental videos and different types of activities module can be added to make the student more understanding.

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