Study into english courseware for slow learners

Abstract- Current tendency indicate that larning through the usage of application and courseware had become of import instruction method. However, it is different instance for slow scholars. As most schools easy accommodating the more effectual instruction method, they can non maintain up with the flow. Even though there are courseware developed for the slow scholars, the courseware is far from carry throughing their specific demands. Statistic shows that in a US typical schoolroom there will be 3 or 4 slow scholars. In countries of poorness and many low-income urban countries, the kids per schoolroom who could be characterized as slow scholars might be twice that figure. The feature of the slow scholars are frequently described as immature in dealingss, find it hard to work out complex job, work really easy, can easy lose path of clip, unable to execute long-run ends, and have hapless concentration accomplishments. However, they are really good with hands-on stuffs. This paper will show the development of courseware made to learn English for the slow scholars.

Keywords-component: courseware ; slow scholars ; English ;

Introduction

Background

Slow scholars are no longer rare instances in Malaysia. However, they are non categorized as people with particular demands. Some might confound the slow scholars with dyslexia. However, both footings are different. Dyslexic will hold troubles in larning to read and compose despite holding same learning procedure and attempt with others. For slow scholars, they do non make good at schools or undertaking that require extended reading, authorship, and mathematic but they perform great outside category

particularly in hands-on undertakings. They will necessitate excess clip in finishing the undertakings given. Because of their features, slow scholars are ever left behind as they can non catch up with the larning procedure gone through by other childs. Even though new engineering has been developed to heighten larning procedure, they are left out because it is non suited for their acquisition demands.

This undertaking is intend to heighten the English courseware specifically for the slow scholars in manner that will function their acquisition demands which is different from other childs. The courseware will be focus on non-linear techniques to do it flexible and more contributing for the slow scholars.

As there is non much of courseware developed for slow scholars, the merchandise of the undertaking will significantly convey the acquisition procedure for the slow scholars into new degree and lighten up the hope for them to larn like normal childs.

Problem Statement

Teaching slow scholars is n't same like learning normal childs. Teaching them require different methods and attacks because of their features. As larning procedure traveling on taking advantage of computing machines and cyberspace, slow scholars are left behind because there are no specific acquisition applications for them that will accommodate their demands particularly in critical topics such asScienceand Mathematic. There are tonss of courseware in the market out at that place but it is excessively small in Numberss and it is far from perfect. This new courseware to be developed

will be a great tool for instructor to learn English to the slow scholars because it will heighten what 's already in the courseware and do it better.

Aims and Scope of Surveies

Aims

The aim of this undertaking is to heighten the current English courseware from Mohd Izzat Helmi Bin Yahya 's English Courseware for Slow Learners undertaking and will be specifically designed for the slow scholars so that the acquisition procedure will accommodate their demands. Because of their features, the courseware will necessitate careful designation.. The courseware will enrich English larning procedure which already in the current courseware and do it more synergistic and flexible.

Scope of Surveies

The undertaking will affect the survey of slow scholar behaviour and courseware development. The consequence of the survey so will be analyzed to develop and heightening cognitive accomplishments developing that will be integrated with the courseware so that the mark to learn slow scholars can be achieved. Target group of the courseware will be primary school pupil in Standard 4 to Standard 6 (10-12 old ages old) . The courseware will be developed as a game to learn General English.

Literature Review

Game-Based Learning

Marc Prensky (2003) says that since Pong is introduced in 1974, the alone expertness that game interior decorators have honed to a superfine border is participant battle: the ability to maintain people in their seats for hr after hr,

twenty-four hours after twenty-four hours, at ecstatic attending, actively seeking to make new ends, shouting with hilarity at their successes, determined to get the better of their failures, all the piece imploring for more. Along with the new engineering that had been developed in recent old ages, games had become more than merely amusement, it had evolve to go the medium of larning. In Digital Game-Based Learning (Prensky, 2001) , explain that kids presents are different from old coevals where they grow up with digital engineering and their heads are altering to suit the engineerings with which they spend more clip. From at that place, it is clear that most kids today from different gender, ages and societal groups spends most of the clip with video games. Many experts see the values in video games as a medium of larning. Its true that this kids love games more than schools but their attitudes toward games is the attitude of the scholars ; passionate, concerted, and actively affect in problem-solving. Research by Zyda (2007) argue that computing machine games are an piquant medium for acquisition, since games can excite cognitive procedures such as reading explicit and inexplicit information, deductive and inductive logical thinking, problem-solving, and doing illations from information displayed across a figure of screens

To specify game based acquisition will be rather complicated because there are several different sentiment on the affair. Kirjavainen (2009) specify game-based acquisition as field of research and game design based on observations that play, structured or unstructured, conditions the human encephalon for transmutation and acquisition. Wee Hoe Tan (2008) defines game-based acquisition as signifier of learner-centered acquisition that uses

electronic games for educational intents. However, the construct of game-based acquisition is still the same ; the usage of game with the defined acquisition results for the intent of acquisition.

Kasvi (2000) lists the seven demands for effectual acquisitionenvironmentas:

Supply a high strength of interaction and feedback ;

Have specific ends and established processs ;

Be motivational ;

Supply a continual feeling of challenge, non excessively hard to be frustrating nor excessively easy to make ennui ;

Supply a sense of direct battle on the undertaking involved ;

Supply the appropriate tools that fit the undertaking ; and

Avoid distractions and breaks that destroy the subjective experience.

Kasvi (2000) suggests that computing machine games fulfill all of these demands and believes that they `` satisfy them better than most other larning mediums '' . By looking at how the Western universe had utilised game as larning faculty in schoolroom, it proves that the statement is true. R. V. Eck (2006) explain that games like Civilization, SimCity 4, Cruise Ship Tycoon, and Roller Coaster Tycoon had already been implemented in schoolroom. Peoples might be disbelieving at first glimpse. All these games have prove them incorrect. For illustration, in Roller Coaster Tycoon pupils

build roller-coasters to different specifications, which is what applied scientists should make. By widening the gameplay with basic larning procedure like calculus physic cognition, it will do a valuable acquisition experience.

Slow Learners in Malaya

In Malaysia, dyslexic kids had begin to have attending when MyLexics, a courseware to assist the dyslexic learn basic Malay linguisticcommunicationis introduced (Haziq, 2009) . However, it 's a different narrative for the slow scholars. In fact, there are instances reported where slow scholars are left behind in the categories (NST, 2008) . Cases like this should n't go on because even though they are weak in survey they are decidedly really good in other facets.

Even worse, One in every three juvenile delinquent in unity school in prison or detainment centres shows larning troubles including being slow scholars. (The Star, 2008) Many believe that if these young person non identified and helped will do them to stop up as felons. Most of them tend to drop out of schools and vulnerable to negative influence because of the job they facing.

Get the better ofing the Failings

Research by LearningRX (2006) argue that weak cognitive accomplishments are the cause of larning disablements such as dyslexia and decelerate acquisition. Important accomplishments such as concentration, perceptual experience, memoriesand logical thought are non every bit good as other normal people which make reading, authorship, and believing more hard. However, this failing can be improved through specific preparation and

testing. Mel Levine (2008) explain that how Kitty Hawk Elementary School in North Carolina America had implied School Attuned Program utilizing the Neurodevelopmental Profiles where all pupils with different cognitive accomplishments can larn. Lisa Galleli, a instructor at Kitty Hawk describes her direction program for one such pupils as `` He had important graphomotor failings with spelling and authorship. But he truly shined in his societal accomplishments and that made all the difference in the universe. He was besides good at math and job resolution. We use his strength who keep him motivated with success while undertaking his authorship job. '' The consequence had proved that it is non impossible to get the better of the failing.

Neurodevelopmental Profile is researched and synthesized by Mel Levine and his co-workers consist of 8 concepts that are:

Table 1: 8 concepts of Neurodevelopmental Profiles

Attention

This includes the ability to concentrate, concentrate on one thing instead than another, finish undertakings, and command what one says and does

Temporal-sequential ordination

Whether it 's being able to declaim the alphabet or forcing a response button on Jeopardy, being able to understand the clip and sequence of pieces of information is a cardinal constituent of acquisition.

Spatial ordination

The ability, for case to separate between a circle and square or to utilize images to retrieve related information

Memory

Even if people are able to understand, form, and construe complex information at the minute, their inability to shop and subsequently remember can dramatically impact their public presentation.

Language

Developing linguistic communication maps involves luxuriant interaction between assorted parts of the encephalon that control such abilities as pronouncing words, understanding different sounds and groking written symbols

Neuromotor maps

The encephalon 's ability to organize motor or musculus map is cardinal to many country of acquisition, including authorship and keyboarding.

Social knowledge

One of the most unmarked constituents of acquisition is the ability to win in societal relationship with equal force per unit area.

Higher-order knowledge

This involve the ability to understand and implement the stairss necessary to work out jobs, attack new countries of acquisition and believe creatively.

By recognizing that every homo have some strong maps and some weak 1s, Mel Levine found that it is possible to depict each person 's alone mix of strength and failings.

Using the right method in developing the courseware and the right attack for the slow scholars, it is non impossible that this courseware will be decidedly assist them.

Formative VS Summative Evaluation

In order to garner informations for the sweetening of the courseware, an appraisal demand to be done. There are two methods to be used ; formative rating and summational rating.

Harmonizing to H. L Roberts (2009) , formative ratings besides known as developmental or execution rating assess what works and what does non work about a peculiar activity or undertaking as it is go oning. It is used to measure the value of a undertaking as it is taking topographic point to find how it can be improved. The method usage in formative rating is the same like other appraisal which include study, interviewor informations aggregation. This type of rating relies on qualitative informations that is how participants felt about the procedure every bit good as quantitative informations, such as charts or trial tonss. Formative rating typically involves a little group of users and participants in the undertaking being evaluated. Participants in formative ratings look non merely at the ends of the procedure and whether those ends are achieved but besides at the procedure itself and where that procedure is a successful one or non. Even though this type of appraisal is rather complex, there are benefit in it. It

allow early designation of possible job in the topic of appraisal. Furthermore, it can be a good manner of gage the user perceptual experience on the topic because it rely on user feedback.

As for summational rating, Fox Valley Technical College (2007) depict it as procedure that concerns concluding rating to inquire if the undertaking or plan met its ends. It is cumulative in nature. It concentrates on scholar results instead than merely the plan of direction where the purpose is to find the user 's command and apprehension of information, construct, accomplishment or procedure. Ongoing summational appraisal represents of import tools for supervising the advancement across clip. There are assorted method of summational appraisal such as presentation, licensing, internship, portfolio or clinical. Summational rating is typically quantitative, utilizing numeral tonss or missive classs to measure learner accomplishment. In a sense, it lets the scholar know `` how they did '' and `` how good they are '' However, there 's more to it. By looking at how the scholar 's did, it helps to cognize whether the merchandise teaches what it is supposed to learn and how efficient it is.

Here the courseware will be utilizing formative rating method. By utilizing formative rating, the current English courseware functionality can be assessed to happen out whether its working to absolutely or not.. Even if the courseware is working decently, it wo n't carry through its aims if the user (in this instance pupil) do n't wish it or holding job in utilizing it. By utilizing formative rating method, user feedback can be recorded and country of betterment can be found. In decision, formative rating method will measure the courseware from two positions ; the courseware functionality and user

feedback. Both will greatly assist in the enhancement procedure of the current courseware.

Methodology

Throw-Away Prototyping

The methodological analysis chosen for the undertaking would be Throw-Away Prototyping. Dummy paradigm, which is presentational merely will be developed. Thorough analysis will be done before first silent person paradigm is developed to guarantee the paradigm have enough inside informations stand foring existent working system. From at that place, the silent person paradigm will be shown and tested with the user to acquire feedback and identify extra demand. The following paradigm will be developed until it truly visualise existent working system. When it is ready and all issues are resolved, it will be implemented as fully-functional system.

Figure 1: Throw-Away Prototyping

Planing

The planning stage is the important 1 in developing the undertaking. First thing to be considered is how the undertaking will be developed. For that, the Gantt Chart for the undertaking is build so that each undertaking milepost during the one twelvemonth of the undertaking can be tracked. Other than that, research is made to happen suited tool to be used for the development of the undertaking. As the undertaking intended to heighten the current courseware, research besides made to place suited trial topic to seek the current courseware.

Initial Analysis

During this stage, the trial scenario is developed and interview every bit good as questionnaire is build to acquire informations from the mark school. Data is gathered every bit much as possible which besides include slow scholar course of study in school and from there thorough analysis is done. The intent is to place strengths, failings, country of betterment and what to be done for the enhancement procedure.

Prototype Building

After all analysis has been done, the design of the courseware begins. A study is done to acquire the overview of new courseware to be developed. The study will gone through polish to incorporate the content and multimedia elements (lifes, flow of information, etc) . The inside informations of the design will be recorded. After all inside informations completed, the development of the paradigm Begin. When the silent person paradigm is complete with all needed characteristics, it will so prove at the school to happen whether it visualise all the issue that should be addressed. If farther polish is required, the silent person paradigm will continuously be build until all demands is complete.

Execution

After all demands had been fulfilled and the silent person paradigm is truly visualising the courseware, it will be declared to be complete and existent working courseware will be implemented.

Research Methodologies

To acquire all the information required, two research methodological analysiss will be chosen that are:

Interview: An interview is conducted with the several instructor of the school. A trial scenario will be deployed to the pupil utilizing the current courseware along with the interview. This is portion of formative rating that will prove the functionality of the courseware and estimate the user on how they use the courseware. The aim is to place the strengths and failings of the current courseware and happen the country of betterment.

Questionnaire: The interview and questionnaire will be done with the several instructor to derive in deepness inside informations of how slow scholars learn and gain all relevant informations which will be mention in developing the new courseware.

Result & A ; Discussion

Requirement Gathering

Interview

In the manner of garnering informations required for the sweetening of the English courseware, an interview is conducted with Pn Khadijah, Coordinator of SpecialEducationfor Sekolah Kebangsaan Sultan Yusuf who is besides the English instructor for Particular Education Department. Using the current courseware made by Mohd Izzat Helmi B Yahya, a trial scenario is deployed where the end is to place the strengths and the failings of the courseware so that the consequence found can be implemented during the development of new English courseware. The trial scenario will verify the conditions and

stairss taken in utilizing the courseware sample to acquire the consequence for farther analysis.

Three slow scholar pupils from Sekolah Kebangsaan Sultan Yusuf take portion in the trial scenario. Below are the inside informations of the three pupils:

Answering 1 - A 12 old ages old male child and is fixing for his UPSR following twelvemonth. He falls into the class of normal slow scholar. His public presentation in the category is really good. He has the basic accomplishments of utilizing computing machine which make him able to utilize the sample courseware decently.

Answering 2 - A 12 old ages old male child. He falls under the class of slow scholar and Syndrom Down. He has the basic accomplishments of utilizing computing machine which make him able to utilize the sample courseware decently.

Answering 3 - A 7 old ages old male child. He merely started his school early this twelvemonth. He is the most ambitious pupil because he falls under the ICU slow scholars class. Furthermore, he does n't hold basic accomplishments of utilizing computing machine which make the trial scenario more hard to be performed.

The intent of taking these three pupils is to detect how different classs of slow scholars make usage of and respond to the courseware. Basically, all the pupil use the courseware in the same manner depends on their cognition

and accomplishments about computing machine. Below is the sum-up of consequence from the trial scenario done with all three pupils.

Table 2: Summary of trial Scenario Result

No

Simulation Date

Action and Data

Expected Consequence

Actual Consequence

1

12 Apr 2010

Establish the courseware interface

Courseware interface appear successfully

2

12 Apr 2010

Establishing subject 1

Subject 1 launched successfully

3

12 Apr 2010

Launch 'Learn ' from subject 1 bill of fare

Learning faculty appear successfully

4

12 Apr 2010

Checking sound for subject one

Audio working successfully

5

12 Apr 2010

Checking synchronism of audio and ocular flows.

Audio and ocular is synchronized

Flow of audio and ocular is excessively fast

6

12 Apr 2010

Click the button 'Play Again ' for subject 1 acquisition faculty

Audio and ocular rematch

7

12 Apr 2010

Launch 'Exercise ' for subject 1

Exercise launched

successfully

Exercise for Topic 3 about colourss appear

8

12 Apr 2010

Performing exercising about Numberss

Exercise done successfully

Exercise can non be performed because exercising for colourss appear

9

12 Apr 2010

Click the button 'Play Again ' for subject 1 exercising

Exercise can be redo

Exercise appear is non for subject 1

10

12 Apr 2010

Establishing subject 2

Subject 2 launched successfully

11

12 Apr 2010

Launch 'Learn ' from subject 2 bill of fare

Learning faculty appear successfully

12

12 Apr 2010

Click and hover on the images of the organic structure parts

Audio and visuals working to depict the images

Audio working merely if pointer is hovered on the image. When image clicked, nil happened

13

12 Apr 2010

Launch 'Exercise ' for subject 2

Exercise launched successfully

14

12 Apr 2010

Drag the words into the several organic structure portion

Wordss dragged successfully

Because there are some input of the exercising non in the acquisition faculty of subject 2, pupil get confused easy

15

12 Apr 2010

Click the button 'Play Again ' for subject 1 exercising

Exercise can be redo

16

12 Apr 2010

Establishing subject 3

Subject 1 launched successfully

17

12 Apr 2010

Launch 'Learn ' from subject 3 bill of fare

Learning faculty appear successfully

18

12 Apr 2010

Click and hover on the images of the colour.

Audio and visuals working to depict the images

Audio appear when the image is clicked. When it is hovered nil happened

19

12 Apr 2010

Launch 'Exercise ' for subject 3

Exercise launched

successfully

20

12 Apr 2010

Draging each colour into the several jar.

Each colour dragged successfully

21

12 Apr 2010

Tax return to courseware interface from any point of the courseware

Courseware interface appear successfully

Other that that, Pn Khadijah says that, the instruction course of study and method are different from the mainstream course of study. They use preschool course of study in their acquisition faculties However, if they show

good public presentation the instructor will fix them to be in national scrutiny like UPSR. More information about the interview will be explained in the following subdivision below.

Questionnaire

In order to acquire in-depth inside informations of demands of the courseware to be developed, interviews and questionnaire is conducted with the several instructors of the schools. This is of import because non all required informations can be acquired through the trial scenario appraisal. The instructor replying the questionnaire is Pn Khadijah, Coordinator of Special Education for Sekolah Kebangsaan Sultan Yusuf. She has old ages of experience in learning slow scholars particularly in English topic. Pn Khadijah is given the overview of the current English courseware and so she is given the questionnaire. Below is the consequence of questionnaire answered by the instructor:

Datas Analysis

From the interview and questionnaire conducted with pupils and instructor of Sekolah Kebangsaan Sultan Yusuf, there are several issue should be addressed about the current English courseware and besides what can be improved for the courseware to be developed:

Flow of audio and ocular must be synchronized and non excessively fast because slow scholars could n't catch up if it 's excessively fast

For unknown ground, exercising for Topic 1 that should cover about Numberss is replaced with exercising from Topic 3 which is about colorss

consequences in holding two exercisings about colorss and the absences of exercising about figure.

The direction is different than what can be done in the acquisition faculty. For illustration the direction of subject 2 says to snap the image to hear the sound. But alternatively, the sound merely look when pointer is hovered on the image. Nothing happened when it is clicked.

Input signal of the exercising should be the same as what it appears in the acquisition faculties to avoid confusion for slow scholars. For illustration, the input of the exercising for subject 2 includes the tummy portion even though it is non taught in the acquisition faculties.

Input of larning faculties should n't be more than 5 in a subject because slow scholars could easy bury what they learn if there 's excessively many input.

Slow scholars in Malaysia are familiar with the Malaysia English. Using U. S English or Britain English in the courseware would confound them.

Students particularly childs like larning utilizing computing machine. Slow scholars are non excluded. So the courseware to be developed must be visually attractive.

Proposed System Architecture

Figure 2: Proposed System Architecture

The courseware will incorporate usage suited multimedia elements that will back up synergistic acquisition environment either for the usage at school or

at place. This will do the acquisition procedure will be more piquant and entertaining.

The courseware will dwell of 3 faculties chiefly developed for pupils of Standard 4 to Standard 6. All this faculties will be developed based on larning course of study for slow scholars from Sekolah Kebangsaan Sultan Yusuf.

After the application is launched, pupils will be accessing the courseware interface. To guarantee the flexibleness of the acquisition procedure, pupils will be given freedom to take which faculty they want to utilize. After each faculty there will be exercising that will prove the pupil 's understand of the current subject. However, pupils are free to take whether they want to make the exercising or non. If they do n't desire to make the exercising, they can continue to following faculty or return to the courseware interface to take other faculties. In turn toing that slow scholars can non get by with excessively much input at a clip, each faculty will dwell of two parts. This will enable the pupils to enrich their acquisition without taking excessively much input at a clip. They have the freedom to take which portion they want to utilize in a faculty. The three faculties are: Numbers, Reading Skills, Body Parts.

Faculty 1: Numbers

The first faculty will learn the pupils the foundation of acknowledging Numberss. The first portion will learn about how to place ordinal and central Numberss and what 's the difference about them. The 2nd portion will learn the pupil how to distinguish between uneven Numberss and even Numberss

utilizing the same faculties in current English courseware with sweetening made on it.

Faculty 2: Reading Skills

This faculty is intended to heighten the reading accomplishments of the students.. The activity in the first portion will be focus on duplicate image. Each clip a image from two sets of images will be shown to the pupil and from there the pupils will be asked to fit the image with the image from the set which is non shown. The 2nd portion will concentrate on duplicate missive and words. The construct will be the same like in the first portion.

Faculty 3: Body Partss

This faculty will learn the pupil the foundation of placing organic structure parts. The first portion will learn the pupil about chief organic structure parts in general. The 2nd portion will learn the pupil specifically about parts on caput

The tools chosen for the development of the undertaking will be Gamemaker 8. The ground to utilize this tool is because it is easy to be used compared to most of other tools. It allow the user to utilize aggregation of freeware images and sound for starting motors like the writer to do a game looking courseware which will embrace on drag-and-drop action utilizing the mouse. This tool will be used along with other tools like Adobe Photoshop CS3 and Macromedia Flash where necessary to do the courseware more synergistic and rich.

Decision

Current English courseware is utilizing basic construct of uniting sound with ocular in the instruction. Even though, it is still non perfect. There is tonss of country for betterment can be made for the courseware. The writer 's undertaking will take the chance to do sweetening on the courseware to maximise its possible. The new courseware to be developed will be more synergistic and rich piece in the same clip turn toing the issue of current courseware. With aid from assorted parties such as the writer 's supervisor, Miss Elaine, instructors of Sekolah Kebangsan Sultan Yusuf every bit good as other people, this undertaking will win.

Recognition

The current courseware mentioned in this paper is developed by Mohd Izzat helmi B Yahya where his work had been base for the writer 's English courseware developed for slow scholars. Here the writer besides would wish to thank Ms. Elaine Chen Yoke Yie as the supervisor for the undertaking, Pn Khadijah, Coordinator of Special Education for Sekolah Kebangsaan Sultan Yusuf, and all other parties who had contribute to the undertaking whether straight or indirectly.