

# Proposal for an educational game for primary students



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This proposal is concerned with the development of a multimedia game through a website named ECUTE. The main purpose of this application will be the education in support of culture throughout technology. The pedagogical domain will be based on cultural understanding and sensitivity through history, cultures and ethics in UK.

## **Contents**

The definitive brief will be divided in the following different sections.

And the Gantt chart

In the context area the author is asked to describe the problem statement of ECUTE at the time and clarify briefly why it is a problem as it is and why it needs to be modified. The next topic to be discussed is the research section which is divided into four sub-categories. By completing this section the reader will have a full thought as regards the research of the author and so the previous can easily identify and understand the way the latter gives solutions to the main problem.

The next section is related to the case where the author is proposing an appropriate idea to the identified problem. The outlined subject explains how the ECUTE program is going to be developed through some software programs and a specified programming language. The proposed solution is associated with the schedule and the Gantt chart. In addition, it explains how the development of the program is planned. Finally at the end, the progress report is being described to the remaining four sections. The report, in this section, will provide a general view of what the author did so far and what problems have occurred. What is more, the referencing section is of great <https://assignbuster.com/proposal-for-an-educational-game-for-primary-students/>

importance since it classifies every source for the research segment of this definitive brief. The main purpose of the Gantt chart and schedule is that both are used to illustrate the tasks of development and all the documentation is needed until the achievement of the project.

## **Context**

### **Problem Statement**

The goal of this project is to develop multimedia software which will provide learning approach other than books. The major target of the project is to motivate children to learn the culture, ethics and history of UK. The purpose of developing software such described is that some children can be bored in the classroom and they just not like reading, writing and furthermore studying. This project is concerned with taking advantage of computers in the most usable and positive way. In addition, it will help children to learn with different and more entertaining methods a larger sum of important information. In this time, most people use PCs for their relaxation and their amusement. Everything in this time connects with computers as the evolution of technology rises. This progress can be associated with the learning skills as well. By completing this project, children can learn to link knowledge and fun simultaneously. This project will be based on the Computer Assisted – Based Learning (CAL). This method is irregular nowadays in most schools and through this the multimedia game will be the best advisor of each parent.

## **Sponsor Details**

The sponsor of the development who really concerns of ECUTE – educational game for 9-11 years old can be found on Dr. Lynne Hall's face. Dr. Lynne Hall cares about each child learning years and skills and she desire an extension of children's education. She is a lecturer at the University of Sunderland and she asked the author to develop a system which will be able to help children learn faster and give them a motive to study. Moreover, Dr. Lynne Hall will provide feedbacks to the developer throughout the building time and she will identify the positives and negatives of the assignment by test it on children.

## **Research Context**

### **3. 1 Education through play**

“ The computers in our schools need to be exploited to the full in order to give children an equivalent confidence and competence in using these as they have in using books” (Straker & Govier, 1996: 3). Williamson for FutureLab (2009) declared that games are the most significant activity for children. If the two above sentences can be connected, the reader can understand what the author is going to apply. He summarised that children can be motivated and taught by games which their main subject is learning. What is more, in the academic research area, he stated that nowadays games are the main subject of study in computer science departments, communication along with cultural studies and at the education sector too (Standford & Williamson, 2005).

Author's project is going to be developed based the Computer Assisted – Based – Learning (C. A. L). This new style of learning extends the ways that

children can be taught. In addition, it has the potential to offer multimedia learning benefits. CAL chains multiple learning methods, which are possible to be used to offer a solution for the specific problem of the children. It can increase their critical thoughts by problems where children will have to identify the problem and produce a solution for it.

## **The Effect of Computers in Children Lives**

“ Activities with computers will permeate and stimulate many different aspects of teaching and learning in school, rather than the computer becoming an object of study in itself” (Straker & Govier, 1996: 6). Author’s idea is based to the above statement to use the computer not just for study but as an entertainment material which will remove the idea of the child that it is studying the specific time. The next step at the future is to replace books with computers but parents and teachers have to be cautious and careful about this. This is the main issue that must make everyone to think and clarify what is the best for our children.

Furthermore, Burke and Peper (2002) had completed a survey for the computer game use in children life basis. They reported whether the children played home video games. 71% reported that they play Nintendo and 63% also stated that they play video arcade games. Handheld games such as Gameboy had the percentage of 50%. The survey also showed that more likely to play home video games and video arcade games were the boys. One more major finding of this survey is that it showed that the mouse is the most common device which it can be use by children (79%), followed by keyboard (43%) and joystick (27%).

### 3.3 Teachers and Parents Roles

Morris & Mort (1990) stated that practical exercises for classroom observation are seen to be the teacher's most major tool for the promotion of successful learning. It means that children can easier learn and study by doing some practical work instead of writing and reading a book.

One of the most important ways for the children to understand personal skills when they are working on a computer is to motivate and encourage them to apply the computer as a resource which can identify and solves problem. Teachers will have to stand back and abort their traditional way of using situations and let children to take responsibilities and become autonomous learners (Govier & Straker, 1996). Computer – Assisted Based – Learning is a good method of teaching and act like it stated above. In addition, teacher will act positively, if a child is ' stuck'. Educator should not tell how the solution is going to be to children but s/he furthermore ask the children to defend their point of view, suggest some things, support them to reproduce what has been accomplished and give them the appropriate feedback at the end of the day (Govier & Straker, 1996).

At stage one, the child will make questions with computer work to its parents. Teachers will have to guide correct the parents whether they are capable to intervene or stand back according to Govier & Straker (1996). For example, if the parent notice a number of mistakes, then she or he must leave the child alone to understand what is going on, where the child went wrong and how to find a solution for the specific problem. Parents need to know what it is presented to their children at the school. They should understand how the education through computers will be achieved so they <https://assignbuster.com/proposal-for-an-educational-game-for-primary-students/>

can help and support their children at home. Finally, parents have to follow the progress of their children, check on them several times a week in order to make sure that their child approached the lectures and the practical outcomes of the class.

## **CAL Education At Schools So Far**

Educational games and systems have been built up the last few years. New styles of learning, different ways of studying and revolutionary software designs have got into our children's live. The most important question is: Are our children ready for this revolution? If yes, then we have to ask ourselves if this plan can be accomplished in the correct way. According to Iram & Blatchford, these new ideas have started to focus on our children's lives without even being able for them, and the teachers to follow this pace of technology (2006). " Unfortunately, computers have been introduced into schools with minimal adaptations to furniture or attention to ergonomics" (Robbins M., Johnson I. P. and Cunliffe C., 2009). Moreover, as parents and teachers we cannot get any feedback from the children for this style of learning as it is not been used for a long period of time. Govier & Straker stated that in the last decade there are many reports of computer learning software which were applied at irregular intervals but they never fructify at the end (1996).

The main reason that this style of learning did not work was that the children used to work individuals on computers instead of group work. If the children worked in groups then they could move their personal skills to the next level. This could happen because the children would see things from their points of view and compare them with the other children. In these circumstances the <https://assignbuster.com/proposal-for-an-educational-game-for-primary-students/>

person who takes some of the blame will be the teacher because he had not the appropriate knowledge for the Computer – Assisted Based – Learning. Also, children were nervous when they faced computers on one-on-one basis and it was strange for them to sit in front of the computer and listen as they did with their teacher (Govier & Straker, 1996).

An issue which cannot allow CAL education to evolve into schools is the lack of interest that some governments have shown to this problem, concerning the funds that could be raised for the improved equipment which CAL requires. If those funds cannot be found from any organisation or to be sponsored by the government it is very unlikely for CAL to be implemented into children's lives. (Govier & Straker, 1996).

## **Proposed Solution**

### **4. 1 ECUTE – educational game for 9-11 years olds**

The main purpose of this educational game is to encourage the children to learn the culture, customs and ethics of the UK. This can be done by the motivated phrases of the game and by the existing competition among the children. Siraj-Blatchford (2006: 13) states that “ well-designed on-screen applications provide for a wide variety of possible responses by the children. Adventure games and simulations often offer particular strengths. They also allow the child to try things out and, if they don't work, to try something else.” In the 21st century, unable to ignore the internet development children have to learn how this global network can be used and by what conduct. So ECUTE educational game will help children to become more familiar with the learning throughout technology. The program will contain a



main exercise including some difficult levels. This main exercise will be developed in animation multimedia software and will produce multiple choice questions. The idea will be demonstrated in a football pitch and the football player, in this case the user, will be waiting to do the penalty kick. Later, the question will appear on screen along with four choices. If the user selects the correct answer then the character will shoot the ball into the nets. If the opposite happens, then the user's character will shoot the ball and the goalkeeper will save the goal automatically. As Iram & Blatchford (2006: 21) stated "... we are now in a position where we know what we want; we know how we want it and we know how it is going to be developed".

## **4. 2 Hardware and Software requirements**

The development of the ECUTE project will be accomplished through some software programs which will construct the website, the links and buttons of the website, the images and finally the game which will run throughout the website.

The project will be constructed in Microsoft Windows 7 32bit by the following programs:

Adobe Flash Professional CS3/CS5

Adobe Dreamweaver CS5

Adobe Photoshop CS5

Adobe Fireworks CS3

Microsoft Office Home Edition will be used for all written documentations of the project. The website and the software can be used on schools or at children's places, as parents can take the opportunity to test their child at home. Furthermore, the only software which is required to run the website and the game is the Adobe Flash Player 10. It can be installed through the following website [http://www.adobe.com/go/EN\\_US-H-GET-FLASH](http://www.adobe.com/go/EN_US-H-GET-FLASH). The ECUTE project does not demand any expert hardware requirements. However, a good internet connection is preferred.

## **Resources and Constraints**

During a game in Adobe Flash, the animation is not only the main task for the developer. Behind the scenes there is a code which is actually give instructions to the program to animate the specified characters. Adobe Flash can develop software by using some programming languages including Actionscript 1. 0, Actionscript 2. 0 or Actionscript 3. 0. Rosenzweig stated “ ActionScript 1. 0 and 2. 0 were often frustrating for game developers. They weren't fast enough to get key tasks done and odd bugs and unexpected behaviour often slowed down production” (2008: 2). Therefore, in order for the developer to extend this project, the use of Actionscript 3. 0 is required.

## **4. 4 Common requirements**

As the developing of every game and entertainment activity for a child on a computer is effortless, the same applies to the project. The game will take place in a friendly digital environment, with bright colours and funny characters. In addition, it will be developed by Adobe Flash and Adobe Photoshop for this specific reason. The development needs a simple interface so the child can be attracted by this. If a child handles with <https://assignbuster.com/proposal-for-an-educational-game-for-primary-students/>

something really funny then it will give more importance to the main subject of the game. The software will be free of bugs as a 9-11 years old child cannot be familiar when an error occurs. A user manual will be included in the game so teachers and parents who do not have any ICT knowledge, can easily read and find some solutions to the possible errors which will occur.

#### **4.5 Methodology**

The methodology which is more appropriate on this development according to the ideas and opinions of the developer can be found on the Waterfall model tactic. This methodology has been chosen because the developer identified the requirements and the objectives of the client through some meetings he had with the sponsor. This methodology is cheaper than the other methods as the developer cannot turn back if something goes wrong according to the client requirements. That is the reason which the author must be 100% sure what the project will be. It has more bugs than the other methodologies. The seven phases for this project are: Planning, Literature Review, Development, Testing, Evaluation, Documentation. At the beginning, planning will analyze the general side of the development which will complete the proposal and get accepted from the supervisor, to arrange a meeting with the client and have full opinion regarding the schedule will lead this development. Second of all, the developer has to make a high-quality appropriate research before the game will start to be developed. The next stage is the Development section. At this phase the author will interview the client all over again and not just once. The developer will have to fully understand what the client needs and how the software will work. Moreover, the project will be coded and all the research which has been

done previously should start to pay off there. The fifth section is the Testing and is one of the most important phases in Waterfall model methodology. The project will have to be tested appropriate at all sections of the code several times. If an error will be identified then the project will not be able to progress to the next stage until the software will be unproblematic and bugs free. Also, the Evaluation section comes next which is also very important to the project and thus to the developer. At the end of the development time, ECUTE – educational game for 9-11 years old will make its first real time appearance in a digital environment. The sponsor will give feedback to the programmer so the developer can identify if he has done a good work. If the result of the feedback is negative, the developer will cannot change the software as he will use the Waterfall model methodology and at this stage the project cannot turn back. Finally, the last part is the Documentation section. The developer will write some documentation according to the finalised version of the project which will include the installation manual and the user manual.

## **5. Progress Report**

### **5.1 Progress So Far**

From the time that the project proposal had been accepted by the supervisor of the project Dr. Peter Dunne, the developer started a research about the Computer – Assisted Based – Learning (CAL). At this point the project has finally got some research behind it and therefore the developer can continue to the Literature Review section. Until now the only part which has been completed is the documentation work of the Definitive Brief. The development of the software has not started yet since this will start after the

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Literature Review section. At the same time with the literature review section, tutorials will begin in order to learn how to develop the software and the website.

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