

## **Initial Plan**

**Project Title:** The Impact of Potential Changes to the ICT Curriculum in British Schools

**Module:** CM0343

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### **Project Description:**

Proposals are being discussed which may lead to a redefinition of the ICT syllabus for schools. It is clear the curriculum currently in place is inadequate leaving students uninterested and lacking skills future employers are seeking. More time, money and training is needed to ensure students have the ability to succeed during a time of such extensive technological change.

This project is concerned with an assessment of what changes could be made in order to improve ICT in schools and the impact these changes would have on pupils. Potential initiatives will be considered that could be used to develop children's skills and knowledge and completely re launch ICT in schools as we know it.

Through the use of systems dynamics, possible recommendations for change will be simulated to identify if it is possible to develop an appropriate information system that will support decision making in ICT in schools.

### **Project Aims:**

- Identify what changes need to be made to the ICT curriculum currently in place in British schools.
- Determine the reasoning behind the need for change and assess how successful previous changes have been.
- Identify possible alternatives to replace the present curriculum.
- Outline the key factors involved in order to produce a Causal Loop diagram and the significance they have.
- Through the use of systems dynamics, run various incremental simulations using iThink. Based on these results, identify recommendation for a proposed system to support decision making in schools. Assess how schools can monitor information and exploit it in order achieve maximum success.

### **Project Objectives:**

- 1. Conduct a literature review to provide background and reasoning for research carried out. To present evidence reinforcing the factors identified in the Causal Loop diagram and determine the relationships present.

- 1.1 Read and assess different publications available, such as newspaper articles, media coverage, journals, books and government documents to broaden knowledge of the area and evaluate viewpoints from contrasting sources. This discussion on the background of the topic will be included in the Interim report. Further research is likely during the development of the quantitative model to provide additional information on elements being simulated.
- 1.2 Conduct interviews with local ICT teachers. Interviews will be analysed and evaluated further during the Interim report to add depth to literature review by providing first hand opinions of the issues.
- 1.3 Create and distribute questionnaires to students that experienced ICT previously in schools and also those still currently involved. Their responses will be used as additional background information when deciding on variables for qualitative model in Interim report.
- 2. Use systems dynamics to simulate the effect that different factors would have.
  - 2.1 Justify the reasoning behind using systems dynamics as the chosen approach for the project.
  - 2.2 Develop a qualitative model in the form of a Causal Loop diagram that identifies a number of key variables and the effect they have on each other. This will contain all factors that are currently impacting on ICT in schools and can be identified as the main deliverable for the Interim report. This diagram will provide a basis for determining which aspects to simulate in the iThink model included in the final report.
  - 2.3 Build a systems thinking model in iThink to simulate possible factors to improve aspects of the current curriculum. The model will be built incrementally as the results of each simulation are likely to directly impact one another and will each require validation. The findings from the model will allow recommendations to be made for a proposed system to support decision making in schools and will be fully expressed in the final report.

### **Time Plan:**

- It is a key milestone of autumn semester that the Causal Loop diagram is complete in or before week 10 in order to fully discuss its results in the Interim report.
- Over the Christmas period, focus will be mainly on preparing for exams however there will still be research being done in order to keep up to date with any new developments in the area.
- The majority of the project will be complete by week 8 in Spring Term as Easter falls earlier this year it allows additional time to write up the final report before having to start thinking about exam preparation.

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