

WJEC GCE Computing CG4 - Extended Project

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Part I

Analysis

This initial part of the documentation features detailed information on the analysis that was performed on the business. It includes background information pertaining to the business, as well as an in-depth investigation on the current system in place, featuring questionnaires, interviews, and observations. Also included is a problem definition, wherein the broad aims of the project are outlined; this definition also makes reference to the limitations of the solution. Finally, detailed objectives are clearly laid out, providing an overview of exactly what the solution should achieve.

1 Background

1.1 About the Business

The Priory School is a medium sized secondary school located in Shrewsbury, Shropshire. The school is a founding member of the Salop Teaching Alliance, and employs over 100 teaching staff, with approximately 900 pupils on roll. Pupils range in age from 11 - 16, and each belongs to an individual form group. During it's previous two inspections, Ofsted judged the school to be Outstanding, the highest possible rating. Additionally, the school has the highest attendance rate in the county, and achieves exam results well above the national average.

A change of leadership in January 2015 resulted in the previous headteacher, Ms Candy Garbett, leaving the school; Mr Michael Barrett, previously of Adams Grammar School, Newport, became the new principal. Following this change in leadership, the school has sought to embrace the advantages of technology, and has invested in several new systems, including an online homework tracker, a virtual learning environment, and a library tracking system. This newfound acceptance of technology opens the way for this project.

1.2 About the Project

Like many schools, The Priory School makes use of a form time in the afternoon. During this process, students are registered, bulletins are read out, and a timetabled activity is carried out; these activities usually include silent reading, a group debate, and quizzes. These quizzes are usually designed by the head of year, and include a range of topics, from current affairs, educational matters, and simple trivia.

Currently, these quizzes are delivered to the forms on a Microsoft Word document, via the school's LAN. The members of the form work together to arrive at what they believe to be the correct answer, and once all questions have been answered, the form tutor marks the quiz and returns the result to the head of year, usually orally. Which would aid in following the school's new policy of "togetherness".

2 Investigation of the Current System

2.1 Overview of System

2.2 Interviews

2.3 Questionnaires

2.4 Observations

2.5 Document Inspections

2.6 Similar Systems

There are a number of systems available, both free and at a cost, that would allow the school to improve their current method of quiztribution (*quiz distribution*). Several popular options are outlined below.

2.6.1 Quiz Creation Websites

A number of websites exist that allow users to design, play and share their own quizzes. These websites, including *QuizWorks*, *ExamTime* and *QuizBean* generally follow the same pattern: the user creates an account, is directed to an interface wherein they can design a quiz, and is then given a link with which they can share the quiz with others. For basic quiz creation, these websites are free, though for more advanced usage (*QuizWorks* defines an "advanced" quiz as one containing more than 15 questions), paid plans are available.

As these systems are websites, they can be accessed from practically any computer or mobile device, as long as there is an internet connection in range. This means that users can continue to work on their quizzes, whether designing or answering them, outside of their place of work.

Though these systems are undoubtedly useful, and could, with a few compromises, be easily integrated into the school's routines, they lack an awareness of the structure of a school. There is no concept of "form groups" or "heads

of year”, both are which are vital concepts if the system is to meet what the school desires. Additionally, they lack the ability to display a detailed analysis of the results (at least, not without paying a somewhat exorbitant fee - £60 per month in the case of *QuizWorks*), a side effect of their focus on individuals as opposed to groups.

2.6.2 Quiz Creation Software Packages

Similar to quiz creation websites, quiz creation software packages allow the user to design and play a quiz. However, these systems are desktop applications (the majority are designed for Microsoft Windows), and so can only be accessed from a single desktop or laptop system. Examples of these systems include *Wondershare Quiz Creator*, *Tanida QuizBuilder*, and *Articulate Storyline 2*. Unlike the mostly free websites, these software packages are often very expensive: the three systems mentioned range in price from \$99 - \$1846 for a single license, with additional licenses costing even more.

To compensate for the high prices, these desktop applications contain a vast feature set. Quizzes of every imaginable type can be created, from drag-and-drop, multiple choice, word bank quizzes, and many more. Images can be included, points assigned, and complex animations can be set to make the quiz as visually appealing as possible. In addition, reports can be generated with tremendous amounts of data, showcasing practically every data point imaginable.

Useful as all these features are,

2.6.3 Quizdom

2.7 Justification of Methods

2.8 IPSO Chart

2.9 Limitations of Current System

3 Problem Definition

3.1 Broad Aims

3.2 Possible Limitations

4 Objectives