

## Methods

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This is an action research project. Its aims are to give weight to my hypothesis that students are motivated by working with a real client, who gives constructive feedback on their efforts relative to the needs of their brief. Motivation is threatened by lack of confidence on the part of the students that they are able to produce work to meet the brief and I wanted to explore the effect on student motivation of timely interventions from professionals.

An opportunity to work on a brief for a real client arose when Peter Bradley, of the Speakers' Corner Trust, asked the college if students would work on a website for a new Speakers' Corner project in Medway. I first researched similar website projects to check that the expectations would be accessible for our Level 3 second year students who had experience of coding in HTML and CSS but not of any Javascript programming. I found that similar projects, in other parts of the country, had used Wordpress, a website building and content management system, for development. This would be accessible for our students but they would need to learn to use it. As an alternative to proprietary software for web development, this seemed a reasonable option and there was enough time in the course to allow for learning, for the students and for me as I had only had limited experience of using Wordpress. I agreed to take the brief for Medway Speakers' Corner (MSC) and prepared an assignment, subsequently internally verified and issued to the students in the sample population.

### Sampling Methods

The sample population for this study consisted of the whole population of two groups of BTEC Level 3 Extended/Diploma in IT students. Both groups have been taught by me for two units. Unit 6, Software Design and Development, was delivered and assessed in the first half of the 2013-2014 academic year. For their assessment, students were expected to build a portfolio and also to complete a final project which incorporated all the skills covered by the unit. The portfolio was built throughout the unit with work set regularly as homework. Students were given an 'achieved' or 'not achieved' result and then had the opportunity to return to that piece of homework and to improve it if they wished to do so. Skills and knowledge were assessed in a number of homework tasks so that a student did not need to return to all tasks in order to build their portfolio but could be assessed on a 'best piece of work' for each assessment criteria. Unit 28, Website Development, was delivered and assessed in the second half of the 2013-2014 academic year. For assessment of the web development unit, two assignments were delivered in the first stage of the unit. These were delivered in a way that matched the other units that students have taken on the BTEC Level 3 Extended Diploma/Diploma in IT, this being that the assignments were designed to assess named criteria, were set a first deadline and then a second deadline for submission of an improved version, which all students expect to make unless they achieve a pass on the first submission, when some choose not to resubmit.

The sampling was opportunistic. These two groups were at a stage in their course where they were ready to work on the brief and had been exposed to the right sort of experiences to make it accessible. Having chosen the two groups the sample was set as the whole population of both groups, giving a total initial sample size of 27 students.

By the end of the project the sample was smaller. One student left the course completely to take up an apprenticeship, this student contributed only to the initial questionnaire. Results do include the data from this student as they are used proportionally. One further student was absent for the entire duration of the project and therefore did not take any part in the process.

#### Initial data collection

Student views on their own levels of motivation were collected using three methods. A questionnaire, completed online, was used to gather data on student motivation for being on the course in the first place, the student's own perception of their performance in meeting deadlines and their perception of the way they approach the completion of assignments. (LINK TO QUESTIONNAIRE).

A focus group interview was held with each group of students rather than the whole sample together. This was for logistical reasons. There was no time when both groups of students were fully available without taking them out of lessons and the two groups did not have breaks at the same time. The data from the interviews was categorised and collated by identifying resonant points and recording the number of similar points in a set of categories derived from the data (Link to category table)

An empirical analysis was made of hand in rates, based on my records of work submission throughout the academic year (original spreadsheets without names). A student's hand in record was taken from recording sheets with a score assigned to each task or assignment based on whether the student handed the work in and then improved it (a score of 3), the student handed the work in on time but didn't improve it (a score of 2), handed the work in late so not having the opportunity to improve it (a score of 1) or didn't hand it in at all (a score of 0). No weighting was attached to any task, each was treated identically, taking no account of the size of the task. This reflects the assumption that each task was set and submitted within a time frame that was reasonable for the particular task.

Data analysis and results are discussed at:

<http://studentwebsites.midkent.ac.uk/karenscott/progress.html>

#### Action

The brief was given to the students on 28<sup>th</sup> April 2014 (**CHECK**) and the students then undertook a set of actions.

- They first carried out initial research into the requirements for a website of this sort. This was a class task and they were asked to find at least three similar sites and to list the common features of these sites. These were fed back to the group and a discussion took place of those features that should be on the site they had been asked to make. A list of requirements was drawn up as a common goal and students were set the task of coming up with their own set of requirements based on the common set. This exercise was designed to help students to understand the needs of the site.

- This was followed by a task to help students to learn how to use Wordpress. There is a free, but limited, online version of Wordpress and I encouraged students to sign up for an account and guided them through a practice exercise, looking at themes, colour schemes and features. They were then asked to make a three page website on which they placed their initial design. One page was to contain the requirements that each had drawn up, one page to show some colour and font ideas and one page to contain an architecture model diagram to show the pages of the website and some indicative content.
- These initial websites were shown to members of Medway Speakers' Corner at a meeting held at the college (this meeting was for the purpose of choosing a logo for the website, which was being designed by a group of graphic design students). At this meeting we got some initial feedback on just a few sites, which I had picked from those that had been created as requested in the class task.(INCLUDE FEEDBACK)
- A workshop session was held in office space in Rochester, funded by the bursary awarded for the project. This session was led by Ahmed, a local web and software developer who had agreed to work with the students on the initial stages of the design. Ahmed guided students through the process of taking a vague idea (the Medway Speakers' Corner website), coming up with a list of the six most desirable features, evaluating and choosing the three most essential features, choosing a theme that allows those features, searching for and installing plugins to implement these features. For the purposes of the workshop, I had asked our IT department to prepare ten laptops with the ability to connect to a wireless network away from the college, with the necessary software installed (Firefox browser software, Notepad++ text editor software and FileZilla FTP client software). I had also organised for students to have their own web server space, domain name and Wordpress installation so that they were ready to go. These were not available at the session and students used guest accounts on the web server. This meant that no student developed their own website for the brief during this session. Students were asked to bring their own devices if they had them and if they were willing to use them for the session. One student did. Students shared laptops one between two.
- During lessons following this session, students were allowed to work on their websites in their own web server space as they saw fit, working towards building a prototype design.
- On May 15<sup>th</sup>, Peter came to college and spent some time talking to students and giving feedback on their prototype designs. He was able to explain the Medway Speakers' Corner project in more depth than the students had heard about before and he was able to look at their designs and to give some detailed feedback on features that were desirable as they were, features that were not suitable and those that should be there but not in their current form. An example of this was that a good number of students had included an events calendar. Peter was able to explain that events would be too far apart for a calendar to be sensible and that event details should be shown as a list instead. The result of this session was a firm set of requirements for the website.
- Students then had a further week to work on their websites to get them near to completion, using the feedback and firm set of requirements.
- On June 2<sup>nd</sup> and June 5<sup>th</sup>, James came into college to run a 'Wordpress clinic'. The idea was that students would ask him about things they were having trouble with and he would be able to give advice on which plugins were best to use, how to change aspects of theme layout, etc. Students asked for individual help and when something seemed relevant to the

whole group or a particular group of students, James worked with those that needed the help. In advance of this session, students were asked to try to identify things they were having difficulty with so that they were ready to make full use of the session.

- Students then continued to work on their site before making sure it was ready for grading on June 6<sup>th</sup>.
- I examined all sites on 6<sup>th</sup> June and recorded whether or not they were 'finished'. A 'finished' site was defined by the inclusion of all the required features and a meeting of all requirements.

#### **Final data collection**

Rates of completion of each part of the project were recorded as simply 'completed' or 'late' (all students made a website of some sort). Only the state of the websites on the deadline day was recorded. If a student subsequently improved their site, this was not recorded. The focus for this study was to see if students were more or less likely to meet deadlines with a finished piece of work, that is, of a quality that would be expected for a pass.